CULVERT REHABILITATION
AND FISH PASSAGE PROJECT

INITIAL STUDY

with Negative Declaration



DEL NORTE COUNTY, CALIFORNIA

DISTRICT 1 – DN – 101 — Post Miles M0.0 to 46.5

EA 01-0K690 / EFIS 0120000135

Prepared by the
State of California Department of Transportation

The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 USC 327 and the Memorandum of Understanding dated May 27, 2022, and executed by FHWA and Caltrans.

March 2026



General Information About This Document

What is in this document?

The California Department of Transportation (Caltrans) has prepared this Initial Study with Negative Declaration (IS/ND) with Finding of No Significant Impact for the proposed project located in U.S. Highway 101 in Del Norte County, California.

Caltrans is the lead agency under the National Environmental Policy Act (NEPA). Caltrans is the lead agency under the California Environmental Quality Act (CEQA). The document tells you why the project is being proposed, what alternatives have been considered for the project, how the existing environment could be affected by the project, the potential impacts of each of the alternatives, and the proposed avoidance, minimization, and/or mitigation measures.

The Initial Study circulated to the public for 30 days between June 11, 2025, and July 22, 2025. Comments received during this period are included in Appendix D. Elsewhere, language has been added throughout this document to indicate where a change has been made since the circulation of the draft environmental document. Minor editorial changes and clarifications have not been so indicated.

Additional copies of this document are available at:

- Caltrans District 1 Office, 1656 Union Street, Eureka, CA 95501
- Del Norte County Library, 190 Price Mall, Crescent City
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- This document may be downloaded at the following website: https://tinyurl.com/dn101culverts

Technical studies can be made available upon request.

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CULVERT REHABILITATION
AND FISH PASSAGE PROJECT

Rehabilitate drainage systems and provide fish passage on U.S. Highway 101 in Del Norte County between Post Miles M0.0 and 46.5

INITIAL STUDY with Negative Declaration

Submitted Pursuant to:

State: Division 13, California Public Resources Code

THE STATE OF CALIFORNIA
Department of Transportation

3/20/2026
Date of Approval

Liza Walker
Liza Walker, Office Chief
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NEGATIVE DECLARATION

Pursuant to: Division 13, California Public Resources Code

State Clearinghouse Number: 2025060510

Project Description

The California Department of Transportation (Caltrans) proposes the Culvert Rehabilitation and Fish Passage Project on U.S. Highway 101 between Post Miles M0.0 and 46.5 in Del Norte County. The project would rehabilitate 19 drainage systems and remediate fish passage at two of the locations.

Determination

Caltrans has prepared an Initial Study for this project and, following public review, has determined 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 ***No Effect*** on:

- Aesthetics
- Agriculture and Forest Resources
- Air Quality
- Cultural Resources
- Energy
- Geology and Soils
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire
- Mandatory Findings of Significance

In addition, the proposed project would have ***Less than Significant Effects*** to:

- Biological Resources
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality

Liza Walker

Liza Walker, Office Chief
North Region Environmental–District 1
California Department of Transportation

3/20/2026

Date

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Acronyms and Abbreviated Terms

Acronym/Abbreviation	Description
AB	Assembly Bill
AC	Asphalt Concrete
ACE	Areas of Conservation Emphasis (CDFW)
AITS	Alternative In-Line Terminal System
APC	Alternative Pipe Culvert
BMPs	Best Management Practices
BO	Biological Opinion
BSA	Biological Study Area
ºC	degrees Celsius
CAA	Clean Air Act
CAFE	Corporate Average Fuel Economy
CAL-CET	Caltrans Construction Emissions Tool
CAL FIRE	California Department of Forestry and Fire Protection
Cal/OSHA	California Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CAPTI	Climate Action Plan for Transportation Infrastructure
CARB	California Air Resources Board
CCC	California Coastal Commission
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CDP	Coastal Development Permit
CEHC	California Essential Habitat Connectivity
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CGP	Construction General Permit
CH_4	methane
CIA	Cumulative Impact Analysis
CIDH pile	Cast-in-Drilled-Hole pile
CIP	Cast-in-Place
CISS pile	Cast-in-Steel-Shell pile
CMP	Corrugated Metal Pipe
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent

Acronym/Abbreviation	Description
CSP	Corrugated Steel Pipe
CTP	California Transportation Plan
CWA	Clean Water Act
dB	decibels
DD	Downdrain
DED	Draft Environmental Document
DI	Drainage Inlet
DOT	Department of Transportation
DP	Director's Policy
DPS	Distinct Population Segment
DWR	Department of Water Resources
ECL	Environmental Construction Liaison
EFH	Essential Fish Habitat
EIR	Environmental Impact Report
EO(s)	Executive Order(s)
EPA	Environmental Protection Agency
ESA	Endangered Species Act
ESA(s)	Environmentally Sensitive Area(s)
ESHAs	Environmentally Sensitive Habitat Area(s)
ESL	Environmental Study Limits
ESU	Evolutionarily Significant Unit
ETW	Edge of Traveled Way
ºF	degrees Fahrenheit
FED	Final Environmental Document
FES	Flared End Section
FESA	Federal Endangered Species Act
FHSZ	Fire Hazard Severity Zone (CAL FIRE)
FHWA	Federal Highway Administration
FR	Federal Register
GHG	greenhouse gas
GWP	Global Warming Potential
H&SC	Health & Safety Code
HDPE	High Density Polyethylene
HFCs	hydrofluorocarbons
HMA	Hot Mix Asphalt
HW	Headwall
IPaC	Information for Planning and Consultation (USFWS)
IS	Initial Study
LRA	Local Responsibility Area
LSAA	Lake and Streambed Alteration Agreement (CDFW)
MAMU	Marbled murrelet

Acronym/Abbreviation	Description
MBGR	Metal Beam Guardrail
MBTA	Migratory Bird Treaty Act
MGS	Midwest Guardrail System
MLD	Most Likely Descendent
MMT	million metric tons
MND	Mitigated Negative Declaration
MPO	Metropolitan Planning Organization
MSA	Magnuson-Stevens Fishery Conservation and Management Act
MTP	Metropolitan Transportation Plan
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act of 1990
NAHC	Native American Heritage Commission
NC	North Coast or Northern California
NCRWQCB	North Coast Regional Water Quality Control Board
ND	Negative Declaration
NEPA	National Environmental Policy Act
NES	Natural Environment Study
NHTSA	National Highway Traffic and Safety Administration
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NOx	Nitrogen oxide
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSO	Northern spotted owl
O_3	ozone
OHM	Ordinary High Water
OHWM	Ordinary High Water Mark
OPC	Ocean Protection Council
OPR	Governor's Office of Planning and Research
PBO	Programmatic Biological Opinion
PC/PS	Precast/Prestressed concrete
PDT	Project Development Team
PLACs	Permits, Licenses, Agreement and Certifications
PLOC	Programmatic Letter of Concurrence
$PM_{2.5}$	Particulate matter 2.5
PM_{10}	Particulate matter 10
PM(s)	Post Mile(s)
Porter-Cologne Act	Porter-Cologne Water Quality Control Act
Project	Culvert Rehabilitation and Fish Passage Project

Acronym/Abbreviation	Description
PRC	(California) Public Resources Code
RCB	Reinforced Concrete Box Culvert
RCP	Reinforced Concrete Pipe
RCP	Representative Concentration Pathways 8.5 Emissions Scenario
RSP	Rock Slope Protection
RTP	Regional Transportation Plan
RTPA	Regional Transportation Planning Agency
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCS	Sustainable Communities Strategy
SF_6	sulfur hexafluoride
SHPO	State Historic Preservation Officer
SHS	State Highway System
SLR	Sea Level Rise
SNC(s)	Sensitive Natural Community(ies)
SO_2	sulfur dioxide
SPCC Plan	Spill Prevention Control, and Countermeasures Plan
SR	State Route
SRA	State Responsibility Area
SRZ	Structural Root Zone
SS	Standard Specifications
SSC	Species of Special Concern
SWMP	Storm Water Management Plan
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TCE	Temporary Construction Easement
THVF	Temporary High Visibility Fencing
TMDLs	Total Maximum Daily Loads
TMP	Transportation Management Plan
UHPC	Ultra-High Performance Concrete
UNESCO	United Nations Educational, Scientific and Cultural Organization
U.S. or US	United States
US 101	U.S. (United States) Highway 101
USACE	United States Army Corps of Engineers
USC	United States Code
USDOT	U.S. Department of Transportation
U.S. EPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
VIA	Visual Impact Assessment
VOCs	Volatile organic compounds
VMT	Vehicle Miles Traveled

Acronym/Abbreviation	Description
WOTUS	Waters of the U.S.
WPCP	Water Pollution Control Program
WQAR	Water Quality Assessment Report
WSP	Welded Steel Pipe
WW	Wingwall



Chapter 1. Proposed Project

1.1 Introduction/Project History

The California Department of Transportation (Caltrans) proposes the Culvert Rehabilitation and Fish Passage Project. The project is located on U.S. Highway 101 in Del Norte County, between Post Miles M0.0 and 46.5 (Figure 1). The project was programmed in the SHOPP Roadway Preservation Program. The original project scope included two alternatives: one that included 26 drainage systems and another that included 41 drainage systems. The current scope includes 19 drainage systems with fish passage remediation at two of the locations, including a bridge at Mello Creek (Figure 2).

The Department of Transportation (Caltrans) is the lead agency under the California Environmental Quality Act (CEQA).

1.2 Purpose and Need

Purpose

The purpose of this project is (1) to rehabilitate existing drainage systems to a state of good condition and (2) to remediate barriers to fish passage.

Need

The project is needed to repair deteriorating or failing drainage systems to prevent erosion and potential roadway embankment failure. Additionally, conditions resulting in barriers to fish passage exist within the project limits. These barriers require remediation per Senate Bill 857 because they prevent fish from accessing habitat that is necessary for survival and spawning during various life stages.

Figure 1. Project Vicinity Map

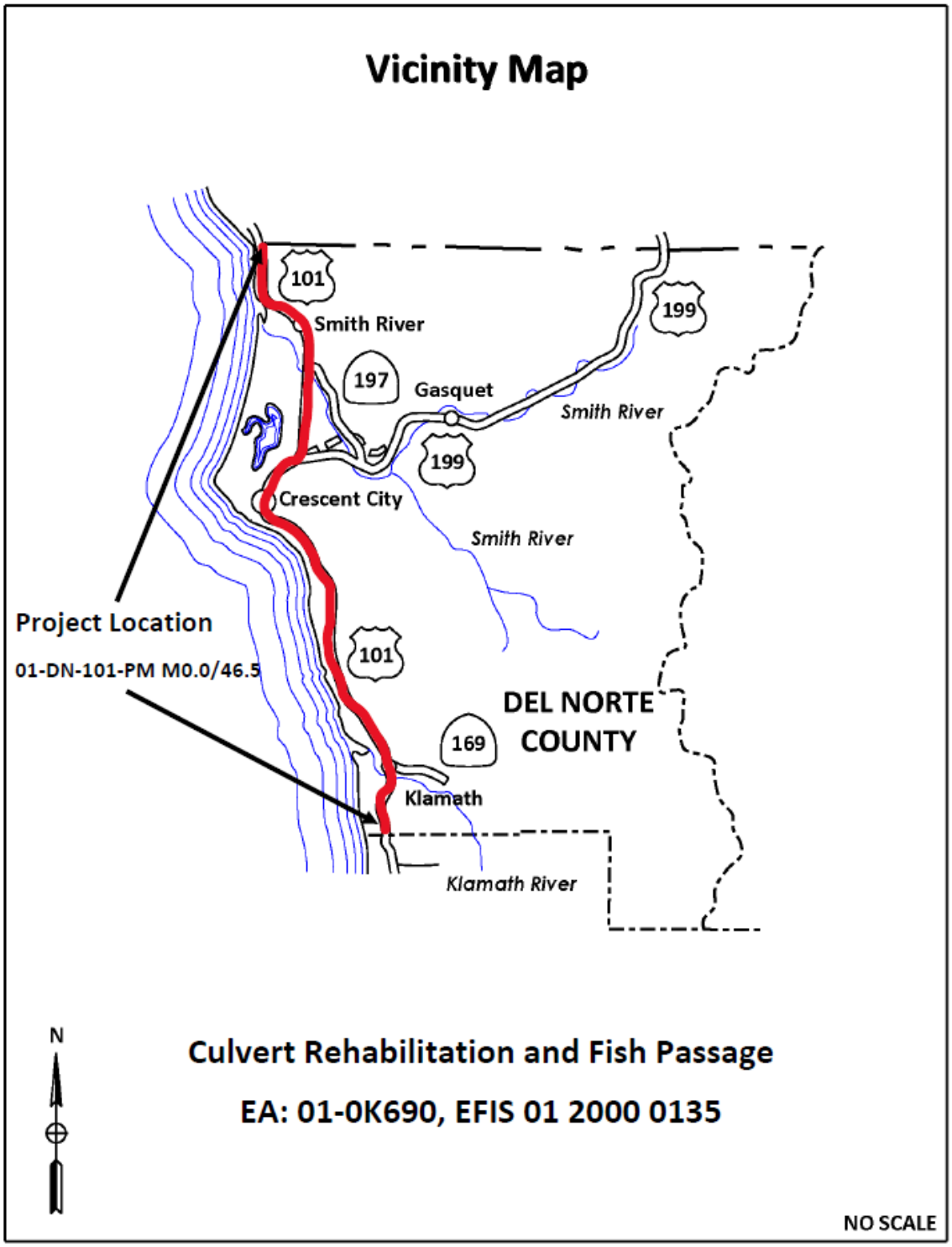
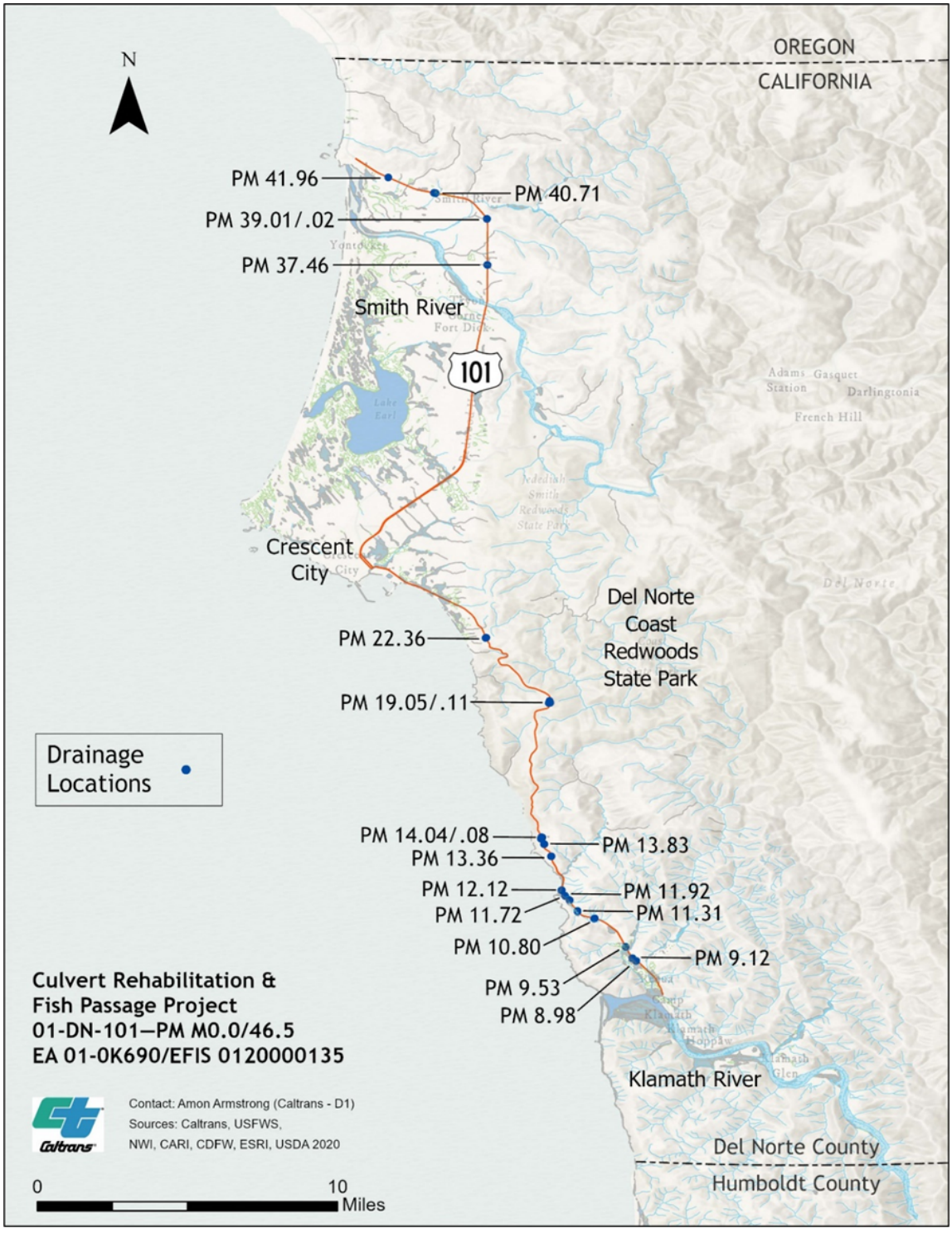


Figure 2. Culvert/Fish Passage Locations



1.3 Project Description

Caltrans proposes to rehabilitate 19 drainage systems on U.S. Highway 101 (US 101) in Del Norte County from Post Miles (PMs) M0.0 to 46.5 (Figure 2 and Table 1). Most drainage systems would be rehabilitated by replacing culverts using the cut and cover method at depths of up to 20 feet. For deeper systems, located at PMs 10.80 and 19.05, a trenchless method would be used for installation. Proposed work would include replacement of culverts, downdrains (DD), drainage inlets (DI), flared end sections (FES), headwalls, end walls, and disturbed pavement. Additionally, guardrail with concrete vegetation control strips, cable railing, rock slope protection (RSP) and rock-lined ditches would be installed. *[The following text has been edited since the draft environmental document was circulated.]* At the proposed bridge location at PM 37.46, shoulder widening would occur, including additional paving and removal of 10 linear feet of a concrete-lined ditch adjacent to the highway. Based on hydraulic recommendations, many existing culverts would be replaced in-kind or increased in diameter. At PMs 9.53 and 40.71, existing culverts would be replaced with larger reinforced box culverts to better convey flows and improve wildlife crossing. Culverts at multiple locations would be shortened (“daylighted”), increasing runoff filtration through larger infiltration capacity and improving aquatic habitat in some locations.

Fish passage remediation would occur at two locations. At PM 37.46, a priority fish passage location would be remediated by constructing a single-span bridge. At PM 40.71, a 36-inch-diameter culvert would be replaced with a 12-foot-wide bottomless box culvert. At several culvert locations, if water is present during construction, dewatering and water diversion would be necessary (Table 1). Vegetation clearing and grubbing, branch trimming, and/or removal of trees would be required for construction access and culvert replacement activities at some locations. Revegetation would occur within disturbed soil areas to replace vegetation removed and to provide soil stabilization and erosion control. Examples of revegetation could include erosion control seeding, natural regeneration, and planting. Temporary erosion control would be included to meet water quality requirements. The project would be constructed in conformance with a Stormwater Pollution Prevention Plan. Refer to project layout sheets for the scope and limits of proposed work (Appendix A). Table 1 below provides a summary of proposed work at each location. *[Table 1 has been updated since the draft environmental document was circulated.]*

Table 1. Scope of Work at Drainage System Locations

PMs	Construction Method	Proposed Work
8.98	Cut and Cover	Remove two L-shaped headwalls and a 24"-wide x 24"-high x 76.9'-long reinforced concrete box (RCB) culvert. Install two L-shaped headwalls with cable railings and a 24"-diameter x 76.9'-long alternative pipe culvert (APC). Dewatering required. Native on-site wetland material over clay base would be placed at the inlet and outlet.
9.12	Cut and Cover	Remove a 36"-diameter x 74.5'-long corrugated steel pipe (CSP) culvert. Install a 48"-diameter x 74.5'-long APC. Dewatering required.
9.53	Cut and Cover	Remove two headwalls, a 30"-wide x 30"-high x 65.7'-long RCB culvert, and a 24"-wide x 24"-high x 65.8'-long RCB culvert. Install two headwalls with cable railing and two 12'-wide x 8'-high x 60.0'-long RCB culverts. Dewatering required.
10.80	Trenchless	Remove two headwalls and abandon a 24"-wide x 24"-high x 127.5'-long RCB culvert. Install two headwalls with cable railings and a 54"-diameter x 130.1'-long welded steel pipe (WSP) culvert. Place 20.0'-long x 9.0'-wide x 2.0'-deep RSP pad over 1.0'-deep gravel filter at the outlet. Temporary access road would be needed. Temporary construction easements would be acquired on both sides. Dewatering may be needed.
11.31	Cut and Cover	Remove two headwalls and a 24"-wide x 24"-high x 74.3'-long RCB culvert. Install two headwalls with cable railings and a 30"-diameter x 80.6'-long APC. Widen shoulders to 4' from the edge of traveled way (ETW) and match adjacent side slope on west side. Dewatering or clear water diversion at inlet.
11.72	Cut and Cover	Remove a flared end section (FES) and a 36"-diameter x 60.8' high density polyethylene (HDPE) culvert. Install an FES and a 36"-diameter x 60.8'-long APC. Dewatering required.
11.92	Cut and Cover	Remove two drainage inlets (DI), a 30"-diameter x 15.5'-long concrete culvert and a 24"-wide x 24"-high x 94.4'-long RCB culvert. Install two G1 DIs, a 24"-diameter x 15.5'-long APC, and a 24"-diameter x 105.8'-long APC.
12.12	Cut and Cover	Remove an FES and a 36"-diameter x 85.9'-long CSP culvert. Install an FES and a 42"-diameter x 85.9'-long APC. Remove +/- 750 sq ft of impervious surface, place +/- 5,000 sq ft of treatment area adjacent to the highway. Place a 4'-high x 8.2'-wide x +/-300'-long vegetated earthen berm to direct hillside runoff.

PMs	Construction Method	Proposed Work
13.36	Cut and Cover	Remove a headwall and a 24"-diameter x 123.2'-long CSP culvert. Install a headwall with cable railing, a 24"-diameter x 123.2'-long APC culvert, and a 6.0'-wide x 1.8'-deep x 24.0'-long pad RSP. Clear water diversion at inlet.
13.83	Cut and Cover	Remove two headwalls, an FES, a 18"-diameter x 40.9'-long CSP culvert, a 24"-diameter x 68.0'-long CSP culvert, and a 24"-diameter x 53.6'-long CSP culvert DD. Install a 6.3'-wide x 0.7'-deep x 41.0'-long rock lined ditch, an FES, a 30"-diameter x 79.4'-long APC, a 30"-diameter x 43.5'-long APC DD with anchor assembly, and a 6.0'-wide x 3.8'-deep x 33.1'-long pad of RSP over a 1.0'-deep gravel filter. Dewatering or clear water diversion at inlet.
14.04	Cut and Cover	Remove a headwall, a drainage inlet, a 24"-diameter x 152.0'-long CSP culvert, and a 24"-diameter x 61.2'-long CSP culvert. Install a 6'-wide x 2.7'-deep x 58.0'-long rock-lined ditch consisting of RSP, a G1 drainage inlet, a 36.0"-diameter x 82.5'-long APC culvert, a 36"-diameter x 16'-long APC DD, a 36"-diameter x 45'-long APC DD, and a 10.0'-wide x 2.0'-deep x 20.0'-long pad of RSP. Dewatering required.
14.08	Cut and Cover	Remove inlet and an 18"-diameter x 66'-long CSP culvert. Install a G1 DI, a 24"-diameter x 66'-long APC culvert, and a 6.0'-wide x 2.0'-deep x 14.0'-long pad of RSP.
19.05	Trenchless	Abandon a 24"-diameter x 197.0'-long CSP culvert, removing a 24"-diameter x 10'-long section at the inlet and a 24"-diameter x 20'-long section at the outlet. Install a headwall with cable railing at inlet, 54"-diameter x 128.4'-long WSP culvert, a 42"-diameter x 68.5'-long APC downdrain with anchor assembly, and a 12.0'-wide x 4.0'-deep x 24.0'-long pad of RSP. Two clear water diversions would be needed; one at each inlet stream channel. Native on-site wetland material over clay base would be placed at the inlet.
19.11	Cut and Cover	Remove an 18"-diameter x 61.7'-long CSP culvert. Install a 24"-diameter x 61.7'-long APC.
22.36	Cut and Cover	Remove a 24"-diameter x 49.3'-long CSP culvert, a 24"-diameter x 10.0'-long CSP culvert, and a 24"-diameter x 100.0'-long CSP culvert. Install a 30"-diameter x 157.2'-long APC and a 6.0'-wide x 2.0'-deep x 14.0'-long pad of RSP.

PMs	Construction Method	Proposed Work
37.46	Bridge (Mello Creek)	Remove four headwalls, a 36"-diameter x 98.0'-long CSP, a 36"-diameter x 98.0'-long CSP culvert, and a 72"-wide x 72"-high x 90.0'-long RCB cattle crossing. Install a full span bridge with Midwest Guardrail System (MGS) with minor concrete vegetation control, with two alternative in-line terminal systems (AITS), two crash cushions, and a wider shoulder for a clear recovery zone. Clear water diversion at inlet. Priority fish passage installation. Remove 10 linear feet of concrete-lined ditch.
39.01/ 39.02	Cut and Cover	Remove four headwalls , an 18"-diameter x 67'-long RCP culvert, and a 24"-diameter x 67'-long RCP culvert. Install two headwalls with cable railing, and a 12'-wide x 6'-high x 66.0'-long RCB culvert. Dewatering or clear water diversion required. Place engineered streambed material at the outlet.
40.71	Cut and Cover (Delilah Creek)	Remove two headwalls, and a 36"-diameter x 68.6'-long RCP culvert, import borrow for inlet and outlet at 40.71. Realign at 40.68, and install a 12'-wide x 8'-high x 60'-long RCB culvert with cable railings and an engineered streambed material. Fish passage to be engineered. Clear water diversion may be required.
41.96	Cut and Cover	Remove a 24"-diameter x 44.2'-long CSP culvert. Install two headwalls with cable railing, a 36"-diameter x 44.2'-long APC culvert, and a 6.0'-wide x 2.0'-deep x 14.0'-long pad of RSP. Dewatering or clear water diversion required.

APC – Alternative Pipe Culvert HDPE – High Density Polyethylene CMP – Corrugated Metal Pipe HMA – Hot Mix Asphalt CSP – Corrugated Steel Pipe	RCP – Reinforced Concrete Pipe DD – Downdrain RSP – Rock Slope Protection RCB – Reinforced Concrete Box Culvert	DI – Drainage Inlet WSP – Welded Steel Pipe FES – Flared End Section HW – Headwall WW - Wingwall

[The following text has been added since the draft environmental document was circulated.] In addition to the proposed work noted above, some tree removal may be necessary at several project locations. The table below captures the maximum amount of tree removal anticipated based on the current scope of work at each location.

[Table 2 has been added since the draft environmental document was circulated.]

Table 2. Anticipated Tree Removal at Project Locations

PMs	Tree Species	6" – 16" DBH	17" - 24" DBH	25" - above
10.80	Sitka spruce (*Picea sitchensis*)	--	1	--
13.36	Red alder (*Alnus rubra*)	3	2	--
13.83	Red alder (*Alnus rubra*)	2	--	--
	California bay (*Umbellularia californica*)	1	--	--
14.04	Red alder (*Alnus rubra*)	3	1	1
19.05	Tan oak (*Notholithocarpus densiflorus*)	2	--	--
	Douglas-fir (*Pseudotsuga douglasii*)	--	2	2
	Coast redwood (*Sequoia sempervirens*)	3	2	3
22.36	Sitka spruce (*Picea sitchensis*)	--	1	2
39.01/39.02	Red alder (*Alnus rubra*)	1	1	--

To complete work, lane closures would be necessary at multiple locations. Work at some locations would be carried out using half-width construction (a staged construction sequence) and a temporary signal system. Equipment and materials staging would occur within the closed lane and shoulders. Most of the work would occur within the existing State right of way. Some locations would involve work within existing drainage easements. Temporary construction easements (TCEs) from adjacent property owners would be required at some locations. Utility relocations are not anticipated.

Construction Scenarios

All work, regardless of method, would begin with the following six steps:

- Set up temporary traffic control using portable delineators and traffic signs for single lane closure, as required.
- Set up staging areas in designated pullouts as well as within the existing closed portion of the roadbed.
- Set up project erosion control Best Management Practices (BMPs), as needed.
- Conduct nesting bird surveys, as needed, for vegetation clearing.
- Conduct minor vegetation removal. May require small equipment such as a bobcat and trimming/removal equipment.
- Set up clear water diversion and/or perform dewatering, as needed.

Cut and Cover Installation

The maximum depth of excavation would be 20 feet without an engineered shoring plan, and the width would be the diameter of the pipe with roughly 24 inches on each side of the pipe.

Following the initial steps 1-6 above, replacement of culverts via the cut and cover method generally includes the following steps:

- Sawcut or grind existing roadway one traffic lane at a time (half width construction).
- Conduct culvert improvements one half at a time (half width construction).
- Excavate trench using an excavator.
- Remove or abandon existing culvert, inlets, and associated drainage structures per plan using a crane, excavator, dump truck, or bobcat.
- Install new culverts using a crane, backhoe, loader, bobcat, or compactor.
- Construct inlets, headwalls, wingwalls, downdrains, and outfalls per plan using a crane, excavator, bobcat, and compactors, as needed. Concrete truck would operate from closed traffic lane with potential use of concrete pump.

- Remove clear water diversion, as needed.
- Replace or install RSP as needed, or fill under the downdrain using excavator, bobcat, skip loader, or boom truck.
- At locations where culverts would be realigned, backfill existing culvert location with structural backfill (e.g., soil or fill from excavated area for new culvert location).
- Restore asphalt using a paver and pavement striper.
- Restore site, including placing erosion control measures.

Jack and Bore Trenchless Installation

Following the initial steps 1-6 above, replacement of culverts via the Jack and Bore trenchless method generally includes the following steps:

- Excavate and remove 10 to 30 feet of existing pipe at inlet and outlet. Pump cement/sand mixture (slurry) into remaining existing pipe (abandon culvert) using cement trucks and cement pump truck as needed on adjacent roadway or staging area. Slurry fill would require multiple lifts to fill entire abandoned culvert.
- Cover abandoned culvert using native material or imported fill designated by the landscape architect.
- Dig a sending and a receiving pit to the required depth for boring equipment.
- Place a Jack and Bore machine into the sending pit.
- Use the machine to cut a hole through the ground and push the new pipe in place.
- Remove the Jack and Bore machine.
- Connect the new welded steel pipe to drain inlet or downdrain.
- Install additional system components (drainage inlet, downdrains, pipe reducers, and anchorage systems).
- Back fill equipment pit, if necessary.
- Conduct quality control inspections.
- Remove clear water diversion, as needed.

- Replace or install rock slope protection (RSP) as needed, or fill under the downdrain using excavator, bobcat, skip loader, or boom truck.
- Restore site, including placing erosion control measures.

Bridge Construction (Mello Creek; PM 37.46; Accelerated Bridge Construction)

Site Preparation:

- Construction area signs would be placed on US 101 notifying motorists of construction and lane closure of US 101 at Mello Creek. Install temporary safety barriers and signal system for one-way traffic handling.
- Construct frontage road and axillary access for adjacent properties.
- Set up staging areas within the existing closed portion of the roadway and in designated pullouts.
- Set up project temporary erosion control BMPs, as needed.
- Conduct nesting bird surveys, as needed, for vegetation clearing.
- Install Environmentally Sensitive Area (ESA) fencing and exclusionary fencing.
- Conduct clearing and grubbing.
- Remove asphalt concrete (AC) pavement or existing guardrail for stage construction within the work zone lane closure.

Stage 1 – Bridge Construction (Stage Construction–Southbound US 101):

- Bridge construction would utilize Accelerated Bridge Construction techniques, described in the following bullet points.
- Temporary shoring for roadway during excavation – contractor could utilize either sheet pile or H-pile wall shoring methods (following description for most likely H-pile shoring).
    - Drill through existing pavement from roadway and install steel piles for temporary shoring and backfill the hole with pea gravel or similar. Excavate down to bottom of vertical abutment and install steel road plate as lagging between piles. Typically, the contractor will slot the road plates between adjacent piles and hold in place with C-clamps. After excavating about 4 feet, the C-clamps are removed (after an excavator supports the

road plate from above and lowers it to the bottom of excavation). The clamps are reinstalled, and the process repeated until the plate reaches the bottom of vertical abutment elevation. Additionally, walers may be needed as support.

- Excavate to bottom of abutment elevation. Existing culvert to remain in place to convey water through project until bridge construction complete. Groundwater could be exposed at lower elevations. Pumps would be used to remove water from excavated areas within the work zone.
- Install bridge substructure piling. Piles could be driven steel H-piles, driven Cast-In-Steel-Shell (CISS) piles or Cast-In-Drilled-Hole (CIDH) reinforced concrete piles.
- Construct abutments and wingwalls. Could be precast or cast-in-place (CIP) concrete (some closure pours would be needed).
- Erect precast/prestressed (PC/PS) concrete voided slab. A crane with outriggers about the width of a two-lane rural highway would install one slab at a time with short full closures. The full closure should be under 20 minutes to set up the crane, pick and place the slab, and clear the traffic lane.
- Place ultra-high-performance concrete (UHPC) in key-ways between PC deck slabs and cure.
- Construct approach slab (as needed).
- Prepare bridge deck and apply polyester concrete overlay.
- Bridge rails would be constructed on southbound side of bridge. Bridge rail construction would consist of placing forms and reinforcing steel then pouring concrete. Staining or architectural finishes would take place after the concrete has had sufficient time to cure (approximately 3 weeks).
- Place structure backfill one foot beyond limits of abutments and compact to 95%.

Stage 2 – Bridge Construction–Northbound US 101

- Repeat preliminary steps as needed to reset traffic controls, BMPs, etc. to perform work on the other side of the roadway.
- Repeat Stage 1 process.

Roadway

- Guardrails would be installed to conform to the bridge railing.
- Place backfill and install new pavement structural section to conform roadway to bridge deck to allow for Stage 2 traffic handling switch.
- Relocate temporary safety barriers and temporary striping for Stage 2 construction.

Stage 3 - Remove Culvert–Restore Streambed

- Following bridge construction and after the creek begins to dry up to a non-flowing condition, in-channel work would proceed. This work could be performed off the traveled way with temporary traffic control provided by flagging, if needed.
- Install temporary clear water diversion using temporary cofferdam and culvert system to convey stream water through the project location.
- Remove existing culvert.
- Excavate to channel subgrade.
- Install engineered streambank material and bankline rock per grading plans and specs using a mini-excavator/skid steer loader and jet in fines to keep flow on surface.
- Remove clear water diversion.
- Final grading of embankment.
- Apply permanent erosion control (hydroseed, planting, mulch).
- Complete final paving. The remaining portions of the existing roadway would receive hot mix asphalt (HMA) overlay to 0.1 feet below finish grades (or asphalt obliterated or cold planed) prior to placing a final structural section consisting of base rock and HMA paving.
- Remove temporary safety barriers and signal system.
- Site cleanup, remove temporary Best Management Practices (BMPs) and Collision Avoidance System.
- Final guardrail and traffic striping would be placed to complete roadway work and return traffic to its pre-construction disposition.

Construction Schedule

[The following text has been updated since the draft environmental document was circulated.] There are 320 working days anticipated for the project based on a potential two-season work period for Mello Creek Bridge, potentially beginning in 2029 and ending in 2031. The expected working days are divided among the other 19 locations with 3 to 48 working days per location, simultaneous with the bridge construction.

Work windows to avoid impacts to sensitive biological resources are provided in the Work Windows section below. Work within drainage systems where water may be present would be scheduled later in the season, as feasible, to minimize the number of locations where dewatering and/or water diversion would be required.

Artificial night lighting may be required. To reduce potential disturbance to sensitive resources, lighting would be temporary and directed specifically on the portion of the work area actively under construction. Use of artificial lighting would be limited to California Occupational Safety and Health Administration (Cal/OSHA) work area lighting requirements. The County of Del Norte does not have a specific noise regulation ordinance outside of residential areas; however, any night work would be subject to the county Nuisance Ordinance and would comply with reasonable accommodations.

1.4 Proposed Alternatives

No-Build (No-Action) Alternative

The No-Build Alternative would maintain the facility in its current condition and would not meet the purpose and need of the project. For each potential impact area discussed in Chapter 2, the No-Build Alternative has been determined to have no impact. Under the No-Build Alternative, no alterations to the existing conditions would occur and the proposed improvements would not be implemented.

Alternatives Considered but Eliminated from Further Consideration

Several drainage system replacement alternatives were considered during the development of the project. The original scope included two alternatives: one included 26 drainage systems and the other included 41 drainage systems. Subsequently, the Project Development Team (PDT) chose to eliminate certain locations that did not meet the programmed scope and schedule.

While various drainage system designs and construction strategies were considered for each location, the scope and purpose of the project remains the same, which is to rehabilitate the drainage systems. Replacement strategies at each location were developed in consultation with the PDT, based in part by hydraulic conditions and environmental constraints.

1.5 Existing Conditions

The existing facility varies between 2-lane conventional highway, 4-lane freeway, and 2-lane and 3-lane expressways within the project limits. Some segments also include a passing lane. All project locations are located in sections of conventional highway in rural, mountainous areas along curvilinear alignments, with shoulder widths varying from 1 foot to 10 feet. Right of way widths extend from 26 feet to 480 feet from the US 101 centerline.

Multiple communities are located within the project limits including Klamath, Crescent City, and Smith River. Segments of the highway within the project limits traverse Del Norte Coast Redwoods State Park, designated a World Heritage site by the United Nations Educational, Scientific and Cultural Organization (UNESCO). Both State and National parks are located within the project limits. Multiple drainage systems are located within the Coastal Zone.

The project area is primarily forested and coastal, while some of the land is agricultural. US 101 in Del Norte County is a coastal route intersecting two primary watersheds: the Klamath River and the Smith River. Several of the proposed culvert locations are within a floodplain of either one of these river basins and/or within the Coastal Floodplain zone.

Aerial and underground power and communication lines are present throughout the project limits. There are no railroad facilities within the project limits. Culverts included in the project are in poor or fair condition and are in need of rehabilitation and/or replacement to preserve the roadway.

1.6 Surrounding Land Use

The project area and surrounding lands are within Del Norte County, spanning 45 miles of the US 101 corridor. The project is located within remote rural and resource lands. The predominant land uses are State and National parks, agriculture, and rural residential uses, with a few small clusters of commercial development within the communities of Klamath, Crescent City, and Smith River.

Thirteen of the locations [PMs 11.31, 11.72, 11.92, 12.12, 13.36, 13.83, 14.04A, 14.04B, 14.08, 22.36, 37.46 (Mello Creek), 40.71, and 41.96 (Delilah Creek) are within the Coastal Zone.

1.7 Permits and Approvals Needed

Table 2 below indicates the permits, licenses, agreements, and certifications (PLACs) that are required for project construction. *[Table 3 has been updated since the draft environmental document was circulated.]*

Table 3. Agency, Permit/Approval Needed and Status

Agency	Permit/Approval	Status
California Department of Fish and Wildlife (CDFW)	1602 Lake and Streambed Alteration Agreement	Obtain after Final Environmental Document (FED) approval.
CDFW	California Endangered Species Act Incidental Take Permit	Obtain after FED approval .
National Marine Fisheries Service (NMFS)	~~I~~ndividual Section 7 Consultation	Consultation initiated February 2, 2026.
Regional Water Quality Control Board (RWQCB)	Clean Water Act Section 401 Water Quality Certification	Obtain after FED approval.
U.S. Army Corps of Engineers (USACE)	Section 404 authorization (Nationwide permit) for work in Waters of the United States	Obtain after FED approval.
U.S. Fish and Wildlife Service (USFWS)	Individual Section 7 Consultation	Technical assistance initiated March 5, 2026..
California Coastal Commission (CCC) or Local Jurisdiction	Coastal Development Permit	Obtain after FED approval.
National Park Service	Section 4(f) Determination	Concluded March 20, 2026.

Agency	Permit/Approval	Status
National Park Service	Temporary Construction Easement	Obtain after FED approval.
California Department of State Parks	Section 4(f) Determination	Concluded March 18, 2026.
California Department of State Parks	Right of Entry Permit	Obtain after FED approval.
California Department of State Parks	Temporary Construction Easement	Obtain after FED approval.

[The following text has been edited since the draft environmental document was circulated.] For projects that have federal funds involved, Section 4(f) of the U.S. Department of Transportation (USDOT) Act of 1966 prohibits the Federal Transit Administration and other USDOT agencies from using land from publicly owned parks, recreation areas (including recreational trails), wildlife and water fowl refuges, or public and private historic properties, unless there is no feasible and prudent alternative to that use and the action includes all possible planning to minimize harm to the property resulting from such a use. This project has federal funds and would require the temporary occupation and permanent incorporation of Section 4(f) resources. A Section 4(f) Evaluation with *de minimis* Determination was prepared for the project and was circulated for public review and comment separately from the draft version of this document. The final Section 4(f) Evaluation with *de minimis* Determination and concurrence from the officials with jurisdiction is now in Appendix E.

1.8 Standard Measures and Best Management Practices Included in All Alternatives

Under CEQA, “mitigation” is defined as avoiding, minimizing, rectifying, reducing/ eliminating, and compensating for an impact. In contrast, Standard Measures and Best Management Practices (BMPs) are prescriptive and sufficiently standardized to be generally applicable, and do not require special tailoring for a project. These are measures that typically result from laws, permits, agreements, guidelines, resource management plans, and resource agency directives and policies. For this reason, the measures and practices are not considered “mitigation” under CEQA; rather, are included as part of the project description in environmental documents.

The project contains a number of standardized project features, standard practices (measures), and Best Management Practices (BMPs) which are employed on most, if not all, Caltrans projects and were not developed in response to any specific environmental impact resulting from the proposed project and, as such, are included as part of the project description. Any project-specific avoidance, minimization, or mitigation measures that would be applied to reduce the effects of project impacts are listed further below as Additional Measures or in Section 2.4.–Biological Resources.

Aesthetics Resources

AR-1: Aesthetic treatment (such as tribal patterns) to bridges/guardrails/retaining walls would be included to address context sensitivity.

AR-2: Temporary access roads, construction easements, and staging areas that were previously vegetated would be restored to a natural contour and revegetated with regionally-appropriate native vegetation.

AR-3: Where feasible, guardrail terminals would be buried; otherwise, an appropriate terminal system would be used, if appropriate.

AR-4: Where feasible, construction lighting would be temporary and directed specifically on the portion of the work area actively under construction, pursuant to Cal/OSHA lighting requirements.

AR-5: Where feasible, the removal of established trees and vegetation would be minimized. To demarcate areas where vegetation would be preserved and root systems of trees protected, Temporary High Visibility Fencing (THVF) would be installed in Environmentally Sensitive Areas (ESAs) before start of construction.

AR-6: To ensure that vegetation control will be visually compatible with the scenic corridor, provide integral colored or stained vegetation control (Minor Concrete), preferably black or dark grey, at all MGS replacement locations. The color and application method will be determined during the final design phase of the project.

Biological Resources

BR-1: General

Before start of work, as required by permit or consultation conditions, a Caltrans biologist or Environmental Construction Liaison (ECL) would meet with the contractor to brief them on environmental permit conditions and requirements relative to each stage of the proposed project, including, but not limited to, work windows, drilling site management, and how to identify and report regulated species within the project areas.

BR-2: Animal Species

A. To protect migratory and nongame birds (occupied nests and eggs), if possible, vegetation removal would be limited to the period outside of the bird breeding season (removal would occur between September 16 and January 31). If vegetation removal is required during the breeding season, a nesting bird survey would be conducted by a qualified biologist within five days prior to vegetation removal. If an active nest is located, the biologist would coordinate with CDFW to establish appropriate species-specific buffer(s) and any monitoring requirements. The buffer would be delineated around each active nest and construction activities would be excluded from these areas until birds have fledged, or the nest is determined to be unoccupied.

B. A *Bird Exclusion Plan* would be prepared by a qualified biologist prior to construction. Exclusion devices would be designed so they would not trap or entangle birds or bats. Exclusion devices would be installed outside of the breeding season (September 16 through January 31) to eliminate the re-occupancy of existing structures by migratory bird species that may attempt to nest on the structure during construction. On structures or parts of structures where it is not feasible to install bird exclusion devices, partially constructed and unoccupied nests within the construction area would be removed and disposed of on a regular basis throughout the breeding season (February 1 through September 15, with biologist discretion) to prevent their occupation. Nest removal would be repeated weekly under guidance of a qualified biologist to ensure nests are inactive prior to removal.

C. Pre-construction surveys for active raptor nests within one-quarter mile of the construction area would be conducted by a qualified biologist within one week prior to initiation of construction activities. Areas to be surveyed would be limited to those areas subject to increased disturbance due to construction activities (i.e., areas where existing traffic or human activity is greater than or equal to construction-related disturbance need not be surveyed). If any active raptor nests are identified, appropriate conservation measures (as determined by a qualified biologist) would be implemented. These measures may include, but are not limited to, establishing a construction-free buffer zone around the active nest site, biological monitoring of the active nest site, and delaying construction activities near the active nest site until the young have fledged.

D. To prevent attracting corvids (birds of the *Corvidae* family which include jays, crows, and ravens), no trash or foodstuffs would be left or stored on-site. All trash would be deposited in a secure container daily and disposed of at an approved waste facility at least once a week. Also, on-site workers would not attempt to attract or feed any wildlife.

E. A qualified biologist would monitor in-stream construction activities that could potentially impact sensitive biological receptors (e.g., amphibians, fish). To ensure adherence to permit conditions, the biological monitor or a contractor-supplied biologist would be present during activities such as installation and removal of dewatering or diversion systems, bridge demolition, pile-driving and hoe-ramming, and drilling for bridge foundations to ensure adherence to permit conditions. In-water work restrictions would be implemented.

F. An *Aquatic Species Relocation Plan*, or equivalent, would be prepared by a qualified biologist and include provisions for pre-construction surveys and the appropriate methods or protocols to relocate any species found. If previously unidentified threatened or endangered species are encountered or anticipated incidental take levels are exceeded, work would either be stopped until the species is out of the impact area, or the appropriate regulatory agency would be contacted to establish steps to avoid or minimize potential adverse effects.

This Plan may be included as part of the Temporary Creek Diversion System Plan identified in BR-5.

G. Artificial night lighting may be required. To reduce potential disturbance to sensitive resources, lighting would be temporary and directed specifically on the portion of the work area actively under construction. Use of artificial lighting would be limited to Cal/OSHA work area lighting requirements.

H. A Limited Operating Period would be observed, whereby all in-stream work below ordinary high water (OHW) would be restricted to the period between June 15 and October 15 to protect water quality and vulnerable life stages of sensitive fish species.

I. To protect nesting or roosting northern spotted owl (NSO) and marbled murrelet (MAMU), suitable NSO or MAMU nesting trees would be removed between September 16 and January 31. No construction activities generating sound levels 20 or more decibels (dB) above ambient sound or with maximum sound levels (ambient sound level plus activity-generated sound level) above 90 dB (with the exception of backup alarms) would occur between February 1 and August 5. Between August 6 and September 15, work that generates sound levels equal to or greater than 10 dB above ambient sound levels or above 90 dB max would observe a daily work window beginning 2 hours post-sunrise and ending 2 hours pre-sunset. Sound-related work windows would be lifted between September 16 and January 31.

   No human activities (including use of drones) would occur within a visual line-of-sight of 328 feet (100 meters) or less from a known nest site (USFWS 2020), or from unsurveyed suitable nesting habitat containing potential murrelet nest trees within 328 feet (100 meters) of proposed activities or, for NSO, from unsurveyed suitable nesting/roosting habitat containing potential owl nest trees. These visual disturbance restrictions would be lifted after September 15; after which the USFWS considers visual disturbance as having “no effect” on nesting adults or dependent young. The 328-foot (100 meters) visual disturbance distance may be reduced or eliminated through technical assistance with the USFWS if site-specific information

suggests that ambient visual disturbance within the action area is already high enough to likely preclude species from nesting within 328 feet (100 meters) of the project footprint, or vegetation near the roadway is sufficiently dense to shield the view from habitat farther from the roadway.

J. Caltrans would contact USFWS if proposed NSO/MAMU habitat removal is within the designated critical habitat area to ensure removal would not result in an adverse effect.

BR-3: Invasive Species

Invasive non-native species control would be implemented. Measures would include:

- Straw, straw bales, seed, mulch, or other material used for erosion control or landscaping would be free of noxious weed seed and propagules.

- All equipment would be thoroughly cleaned of all dirt and vegetation prior to entering the job site to prevent importing invasive non-native species. Project personnel would adhere to the latest version of the *California Department of Fish and Wildlife Aquatic Invasive Species Decontamination Protocol (Northern Region)* (CDFW 2022) for all field gear and equipment in contact with water.

BR-4: Plant Species, Sensitive Natural Communities, and ESHA

A. A *Revegetation Plan* would be prepared which would include a plant palette, establishment period, watering regimen, monitoring requirements, and invasive plant species control measures. The Revegetation Plan would also address measures for wetland and riparian areas temporarily impacted by the project.

B. Prior to the start of work, Temporary High Visibility Fencing (THVF) and/or flagging would be installed around sensitive natural communities, environmentally sensitive habitat areas, rare plant occurrences, intermittent streams and wetlands and other waters, where appropriate. No work would occur within fenced/flagged areas.

C. Where feasible, the structural root zone (SRZ) would be identified around each large-diameter tree (>2-foot diameter-at-breast height [DBH]) directly adjacent to project activities, and work within the zone would be limited.

D. When possible, excavation of roots of large diameter trees (>2-foot DBH) would not be conducted with mechanical excavator or other ripping tools. Instead, roots would be severed using a combination of root-friendly excavation and severance methods (e.g., sharp-bladed pruning instruments or chainsaw). At a minimum, jagged roots would be pruned away to make sharp, clean cuts.

E. Upon completion of construction, all superfluous construction materials would be completely removed from the site. The site would then be restored by regrading and stabilizing with a hydroseed mixture of native species along with fast growing sterile erosion control seed, as required by the Erosion Control Plan.

BR-5: Wetlands and Other Waters

A. The contractor would be required to prepare and submit a *Temporary Creek Diversion System Plan* to Caltrans for approval prior to any creek diversion. Depending on site conditions, the plan may also require specifications for the relocation of sensitive aquatic species (see also Aquatic Species Relocation Plan in **BR-2**). Water generated from the diversion operations would be pumped and discharged according to the approved plan and applicable permits.

B. In-stream work would be restricted to the period between June 15 and October 15 to protect water quality and vulnerable life stages of sensitive fish species (see also **BR-2**). Construction activities restricted to this period include any work below ordinary high water (OHW). Construction activities performed above the ordinary high water mark (OHWM) of a watercourse that could potentially directly impact surface waters (i.e., soil disturbance that could lead to turbidity) would be performed during the dry season, typically between June through October, or as weather permits per the authorized contractor-prepared Storm Water Pollution Prevention Plan (SWPPP) or Water

Pollution Control Program (WPCP), and/or project permit requirements.

C. See **BR-4** for Temporary High Visibility Fencing (THVF) information.

D. If allowed by regulatory agencies, temporary wetland protection mats may be used to prevent permanent damage and minimize temporary damage to wetlands from construction activities. Mats should be designed to accommodate motorized equipment or vehicles. Mats would be removed when wetland access is no longer needed or by November 1 of each year.

Cultural Resources

CR-1: If cultural materials are discovered during construction, work activity within a 60-foot radius of the discovery would be stopped and the area secured until a qualified archaeologist can assess the nature and significance of the find in consultation with the State Historic Preservation Officer (SHPO).

CR-2: If human remains and related items are discovered on private or State land, they would be treated in accordance with State Health and Safety Code (H&SC) § 7050.5. Further disturbances and activities would cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to California Public Resources Code (PRC) § 5097.98, if the remains are thought to be Native American, the coroner would notify the Native American Heritage Commission (NAHC) who would then notify the Most Likely Descendent (MLD).

Human remains and related items discovered on federally-owned lands would be treated in accordance with the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA) (23 USC 3001). The procedures for dealing with the discovery of human remains, funerary objects, or sacred objects on federal land are described in the regulations that implement NAGPRA 43 CFR Part 10.

All work in the vicinity of the discovery shall be halted and the administering agency's archaeologist would be notified immediately. Project activities in the vicinity of the discovery would not resume until the federal agency complies with the 43 CFR Part 10 regulations and provides notification to proceed.

Geology, Seismic/Topography, and Paleontology

GS-1: The project would be designed to minimize slope failure, settlement, and erosion using recommended construction techniques and Best Management Practices (BMPs). New earthen slopes would be vegetated to reduce erosion potential.

GS-2: In the unlikely event that paleontological resources (fossils) are encountered, all work within a 60-foot radius of the discovery would stop, the area would be secured, and the work would not resume until appropriate measures are taken.

Greenhouse Gas Emissions

GHG-1: Caltrans Standard Specification "Air Quality" requires compliance by the contractor with all applicable laws and regulations related to air quality (Caltrans Standard Specification [SS] 14-9).

GHG-2: Compliance with Title 13 of the California Code of Regulations, which includes restricting idling of diesel-fueled commercial motor vehicles and equipment with gross weight ratings of greater than 10,000 pounds to no more than 5 minutes.

GHG-3: Caltrans Standard Specification "Emissions Reduction" ensures that construction activities adhere to the most recent emissions reduction regulations mandated by the California Air Resources Board (CARB) (Caltrans SS 7-1.02C).

GHG-4: Use of a Transportation Management Plan (TMP) to minimize vehicle delays and idling emissions. As part of this, construction traffic would be scheduled and routed to reduce congestion and related air quality impacts caused by idling vehicles along the highway during peak travel times.

GHG-5: All areas temporarily disturbed during construction would be revegetated with appropriate native species, as appropriate. Landscaping reduces surface warming and, through photosynthesis, decreases CO_2. This replanting would help offset any potential CO_2 emissions increase.

GHG-6: Pedestrian and bicycle access would be maintained on U.S. Highway 101 during project activities.

Hazardous Waste and Material

HW-1: Per Caltrans requirements, the contractor(s) would prepare a project-specific *Lead Compliance Plan* (CCR Title 8, § 1532.1, the "Lead in Construction" standard) to reduce worker exposure to lead-impacted soil. The plan would include protocols for environmental and personnel monitoring, requirements for personal protective equipment, and other health and safety protocols and procedures for the handling of materials containing lead.

HW-2: If treated wood waste (such as removal of sign posts or guardrail) is generated during this project, it would be disposed of in accordance with Standard Specification 14-11.14 "Treated Wood Waste."

Traffic and Transportation

TT-1: A Transportation Management Plan (TMP) would be prepared for the project. The contractor would be required to schedule and conduct work to avoid unnecessary inconvenience to the public and to maintain access to driveways, houses, and buildings within the work zones. Pedestrian and bicycle access would be maintained during construction.

Utilities and Emergency Services

UE-1: All emergency response agencies in the project area would be notified of the project construction schedule and would have access to U.S. Highway 101 throughout the construction period.

UE-2: The project is located within the *Moderate* and *High* CAL FIRE Fire Hazard Severity Zone (FHSZ). The contractor would be required to submit a jobsite *Fire Prevention Plan* as required by Cal/OSHA before starting job site activities. In the event of an emergency or wildfire, the contractor would cooperate with fire prevention authorities.

Water Quality and Stormwater Runoff

WQ-1: The project would comply with the provisions of the Caltrans Statewide National Pollutant Discharge Elimination System (NPDES) Permit (Order 2022-0033-DWQ), effective January 1, 2023. If the project results in a land disturbance of one acre or more, coverage under the Construction General Permit (CGP) (Order 2022-0057-DWQ) is also required.

Before any ground-disturbing activities, the contractor would prepare a Stormwater Pollution Prevention Plan (SWPPP) (per the Construction General Permit Order 2022-0057-DWQ) or Water Pollution Control Program (WPCP) (projects that result in a land disturbance of less than one acre) that includes erosion control measures and construction waste containment measures to protect Waters of the State during project construction. For SWPPP projects (which are governed according to both the Caltrans NPDES permit and the Construction General Permit), soil disturbance is permitted to occur year-round as long as the Caltrans NPDES and CGP and the corresponding requirements of those permits are adhered to. For WPCP projects (which are governed according to the Caltrans NPDES permit), soil disturbance is permitted to occur year-round as long as the Caltrans NPDES permit is adhered to.

The SWPPP or WPCP would identify the sources of pollutants that may affect the quality of stormwater; include construction site Best Management Practices (BMPs) to control sedimentation, erosion, and potential chemical pollutants; provide for construction materials management; include non-stormwater BMPs; and include routine inspections and a monitoring and reporting plan. All construction site BMPs would follow the latest edition of the *Caltrans Storm Water Quality Handbooks: Construction Site BMPs Manual* to control and reduce the

impacts of construction-related activities, materials, and pollutants on the watershed.

The project SWPPP or WPCP would be continuously updated to adapt to changing site conditions during the construction phase. Construction may require one or more of the following temporary construction site BMPs:

- Any spills or leaks from construction equipment (e.g., fuel, oil, hydraulic fluid, and grease) would be cleaned up in accordance with applicable local, state, and/or federal regulations.
- Accumulated stormwater, groundwater, or surface water from excavations or temporary containment facilities would be removed by dewatering.
- Water generated from the dewatering operations would be discharged on-site for dust control and/or to an infiltration basin or disposed of offsite.
- Temporary sediment control and soil stabilization devices would be installed.
- Existing vegetated areas would be maintained to the maximum extent practicable.
- Clearing, grubbing, and excavation would be limited to specific locations, as delineated on the plans, to maximize the preservation of existing vegetation.
- Vegetation reestablishment or other stabilization measures would be implemented on disturbed soil areas, per the Erosion Control Plan.
- For SWPPP projects (which are governed according to both the Caltrans NPDES permit and the Construction General Permit), soil disturbance is permitted to occur year-round as long as the Caltrans NPDES and CGP and the corresponding requirements of these permits are adhered to. For WPCP projects (which are governed according to the Caltrans NPDES permit), soil disturbance is permitted to occur year-round as long as the Caltrans NPDES permit is adhered to.

WQ-2: The project would incorporate pollution prevention and design measures consistent with the *2016 Caltrans Storm Water Management Plan* (Caltrans 2016). This plan complies with the requirements of the Caltrans Statewide NPDES Permit (Order 2022-0033-DWQ).

The project design may include one or more of the following:

- Vegetated surfaces would feature native plants, and revegetation would use the seed mixture, mulch, tackifier, and fertilizer recommended in the Erosion Control Plan prepared for the project.
- Where possible, stormwater would be directed in such a way as to sheet flow across vegetated slopes, thus providing filtration of any potential pollutants.

1.9 Discussion of the NEPA Categorical Exclusion

This document contains information regarding compliance with the California Environmental Quality Act (CEQA) and other state laws and regulations. Separate environmental documentation supporting a Categorical Exclusion determination will be prepared in accordance with the National Environmental Policy Act (NEPA). When needed for clarity, or as required by CEQA, this document may contain references to federal laws and/or regulations (CEQA, for example, requires consideration of adverse effects on species identified as a candidate, sensitive, or special status species by the National Marine Fisheries Service (NMFS) and the United States Fish and Wildlife Service (USFWS)—in other words, species protected by the Federal Endangered Species Act).



Chapter 2. CEQA Environmental Checklist

Environmental Factors Potentially Affected

The environmental factors noted below would be potentially affected by this project. Please see the CEQA Environmental Checklist topics on the following pages for additional information.

Potential Impact Area	**Impacted: Yes / No**
Aesthetics	No
Agriculture and Forest Resources	No
Air Quality	No
Biological Resources	**Yes**
Cultural Resources	No
Energy	No
Geology and Soils	No
Greenhouse Gas Emissions	**Yes**
Hazards and Hazardous Materials	**Yes**
Hydrology and Water Quality	**Yes**
Land Use and Planning	No
Mineral Resources	No
Noise	No
Population and Housing	No
Public Services	No
Recreation	No
Transportation	No
Tribal Cultural Resources	No
Utilities and Service Systems	No
Wildfire	No
Mandatory Findings of Significance	No

The CEQA Environmental Checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the project will indicate there are no impacts to a particular resource. A "NO IMPACT" answer in the last column of the checklist reflects this determination. The words "significant" and "significance" used throughout the CEQA Environmental Checklist are only related to potential impacts pursuant to CEQA. The questions in the CEQA Environmental Checklist are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

Project features, which can include both design elements of the project, as well as standardized measures that are applied to all or most Caltrans projects (such as Best Management Practices [BMPs] and measures included in the Standard Plans and Specifications or as Standard Special Provisions [Section 1.4]), are considered to be an integral part of the project and have been considered prior to any significance determinations documented in the checklist or document.

Project Impact Analysis Under CEQA

CEQA broadly defines "project" to include "the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment" (14 California Code of Regulations [CCR] § 15378). Under CEQA, normally the baseline for environmental impact analysis consists of the existing conditions at the time the environmental studies began. However, it is important to choose the baseline that most meaningfully informs decision-makers and the public of the project's possible impacts. Where existing conditions change or fluctuate over time, and where necessary to provide the most accurate picture practically possible of the project's impacts, a Lead Agency may define existing conditions by referencing historic conditions, or conditions expected when the project becomes operational, or both, that are supported with substantial evidence. In addition, a Lead Agency may also use baselines consisting of both existing conditions and projected future conditions that are supported by reliable projections based on substantial evidence in the record. The CEQA Guidelines require a "statement of the objectives sought by the proposed project" (14 CCR § 15124(b)).

The legal standard for determining the significance of impacts is whether a "fair argument" can be made that a "substantial adverse change in physical conditions" would occur. The fair argument must be backed by substantial evidence including facts, reasonable assumption predicated upon fact, or expert opinion supported by facts. Generally, an environmental professional with specific training in an area of environmental review can make this determination.

Though not required, CEQA suggests Lead Agencies adopt thresholds of significance, which define the level of effect above which the Lead Agency will consider impacts to be significant, and below which it will consider impacts to be less than significant. Given the size of California and it's varied, diverse, and complex ecosystems, as a Lead Agency that encompasses the entire State, developing thresholds of significance on a state-wide basis has not been pursued by Caltrans. Rather, to ensure each resource is evaluated objectively, Caltrans analyzes potential resource impacts in the project area based on their location and the effect of the potential impact on the resource as a whole. For example, if a project has the potential to impact 0.10 acre of wetland in a watershed that has minimal development and contains thousands of acres of wetland, then a "less than significant" determination would be considered appropriate. In comparison, if 0.10 acre of wetland would be impacted that is located within a park in a city that only has 1.00 acre of total wetland, then the 0.10 acre of wetland impact could be considered "significant."

If the action may have a potentially significant effect on any environmental resource (even with mitigation measures implemented), then an Environmental Impact Report (EIR) must be prepared. Under CEQA, the Lead Agency may adopt a Negative Declaration (ND) if there is no substantial evidence that the project may have a potentially significant effect on the environment (14 CCR § 15070(a)).

A proposed Negative Declaration must be circulated for public review, along with a document known as an Initial Study.

CEQA documents must consider direct and indirect impacts of a project (California Public Resources (CPR) Code § 21065.3). They are to focus on significant impacts (14 CCR § 15126.2(a)). Impacts that are less than significant need only be briefly described (14 CCR § 15128). All potentially significant effects must be addressed.

[Note responses to the questions in each CEQA Environmental Checklist table in Sections 2.1 to 2.21 were indicated as checkmarks in the draft environmental document. For ADA compatibility, these have been changed from checkmarks to Yes and No responses.]

No-Build (No-Action) Alternative

For each of the following CEQA Environmental Checklist questions, the "No-Build" Alternative has been determined to have "No Impact". Under the "No-Build" Alternative, no alterations to the existing conditions would occur and no proposed improvements would be implemented. The "No-Build" Alternative will not be discussed further in this document.

Definitions of Project Parameters

When determining the parameters of a project for potential impacts, the following definitions are provided:

Project Area: This is the general area where the project is located. This term is mainly used in the *Affected Environment* section (e.g., watershed, climate type, etc.).

Project Limits: This is the beginning and ending post miles for a project. This is different than the Environmental Study Limits in that it sets the beginning and ending limits of a project along the highway. It is the limits programmed for a project, and every report, memo, etc., associated with a project should use the same post mile limits. In some cases, there may be areas associated with a project that are outside of the project limits, such as staging and disposal locations.

Project Footprint: The area within the Environmental Study Limits (ESL) the project is anticipated to impact, both temporarily and permanently. This includes staging and disposal areas.

Environmental Study Limits (ESL): The project engineer provides the Environmental team the ESL as an anticipated boundary for potential impacts. The ESL is *not* the project footprint. Rather, it is the area *encompassing* the project footprint where there could *potentially* be direct and indirect disturbance by construction activity (Figures 3, 4, and 5 below). The ESL is larger than the project footprint in order to accommodate any future scope changes. The ESL is also used for identifying the various Biological Study Areas (BSAs) needed for different biological resources.

The Biological Study Area (BSA) encompasses the ESL, as well as areas adjacent to the ESL where standard environmental assessments for sensitive resources (habitats, plants, wildlife, wetlands, rivers/creeks, etc.) are conducted. The limits of the project BSAs were determined to be:

- A 328-foot buffer surrounding the construction footprint for potential auditory and visual disturbance.
- A 100-foot buffer surrounding the coastal portion of the construction footprint to evaluate the potential presence and impacts to Environmentally Sensitive Habitat Areas (ESHAs) for the Coastal Development Permit (CDP) (Figures 3-5).

Figure 3. Environmental Study Limits – PMs 8.98 to 14.08

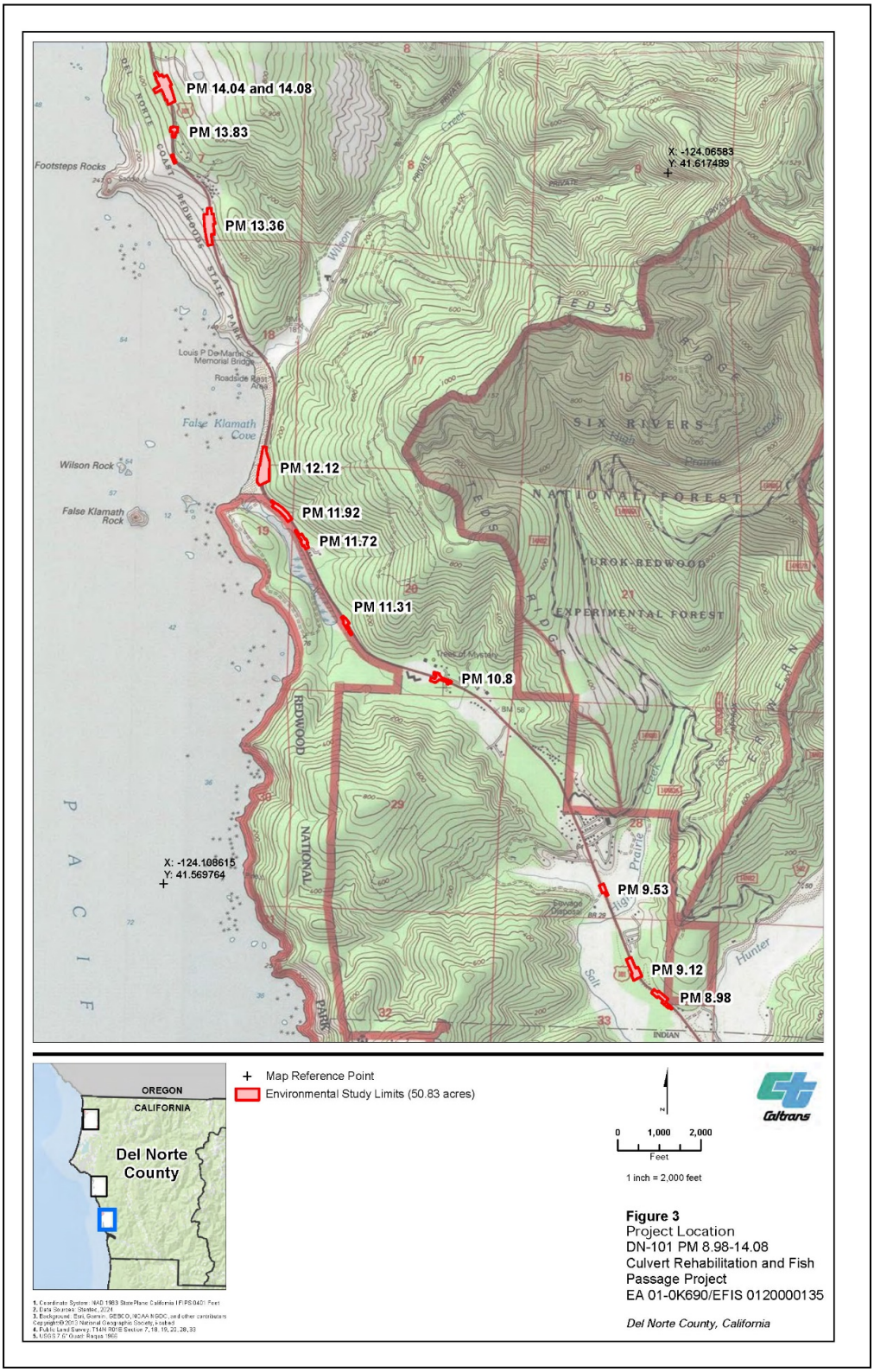


Figure 4. Environmental Study Limits – PMs 19.05 to 22.36

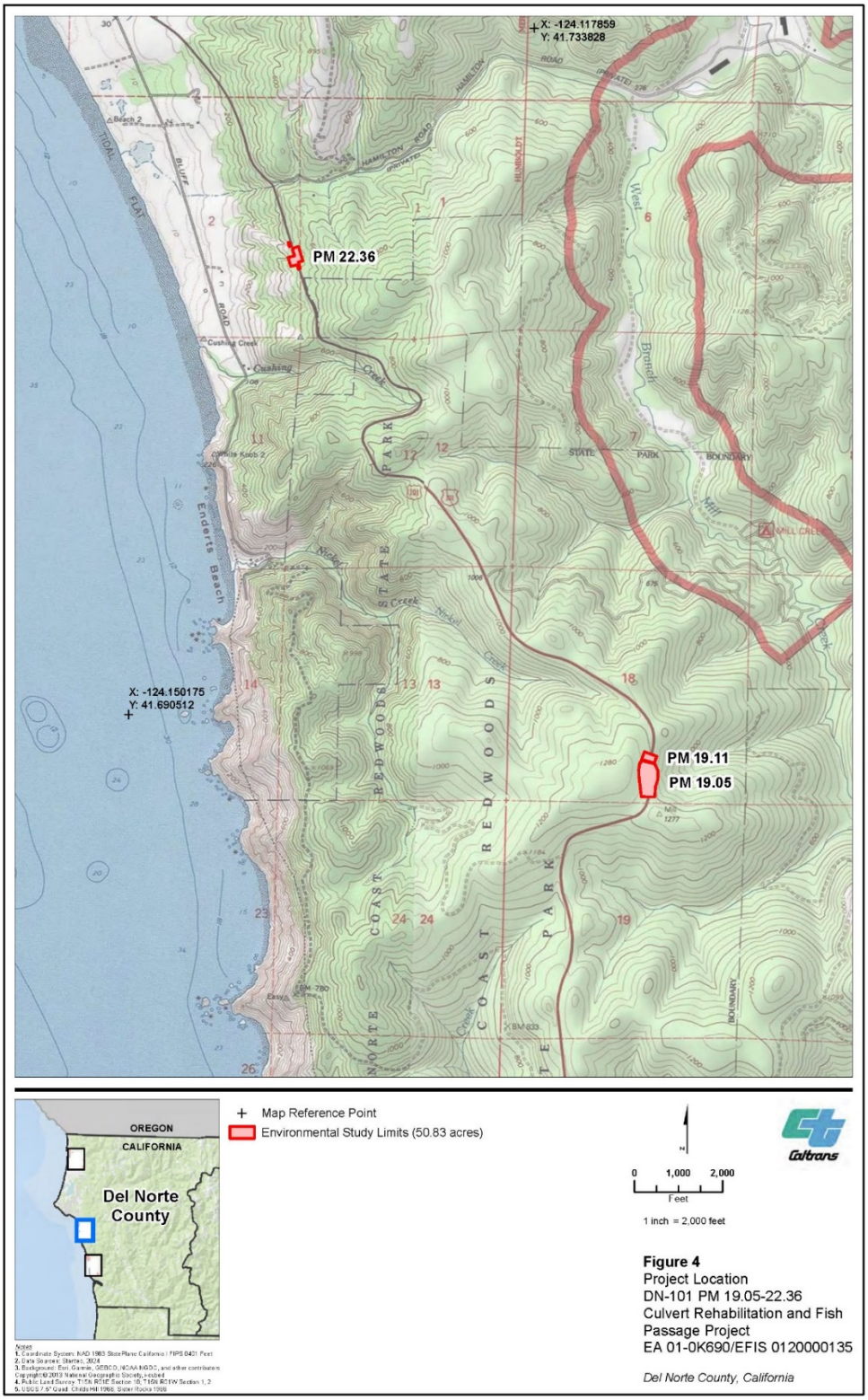
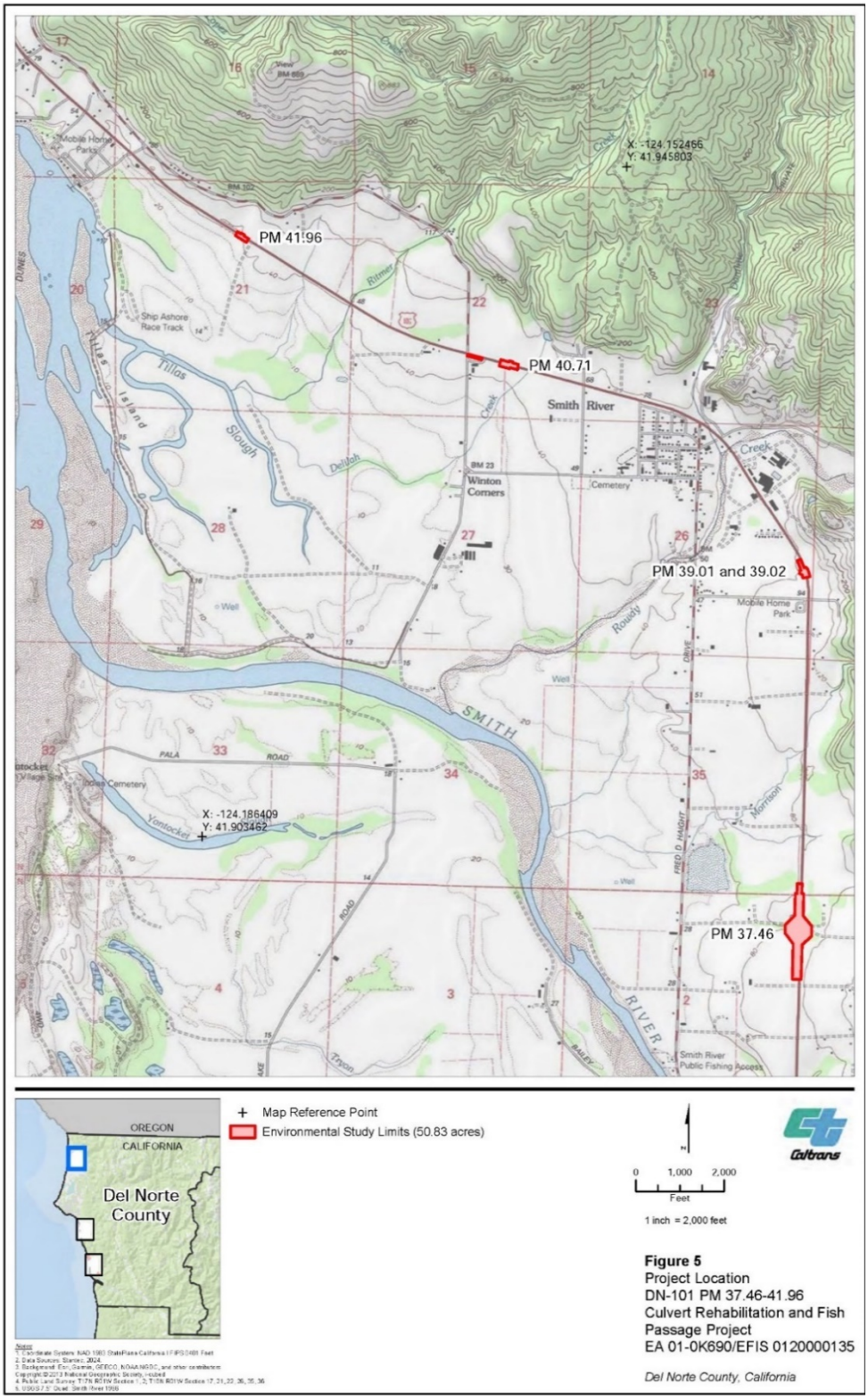


Figure 5. Environmental Study Limits – PMs 37.46 to 41.96



2.1 Aesthetics

Except as provided in Public Resources Code Section 21099:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: a) Have a substantial adverse effect on a scenic vista?	No	No	No	Yes
Would the project: b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	No	No	No	Yes
Would the project: c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	No	No	No	Yes
Would the project: d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	No	No	No	Yes

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the *Visual Impact Assessment Memo* (VIA) dated February 5, 2025 (Caltrans 2025a).

US 101 is a Designated State Scenic Highway between Post Miles 11.00 and 23.10 and an Eligible Scenic Highway for all other locations within Del Norte County. The project area comprises coastal mountains bordering the Pacific Ocean, crosses the Klamath River and Smith River, multiple creeks and washes, and includes Redwood National and State parks, and a designated UNESCO World Heritage site.

From project locations there are views to the ocean, redwood forests, mountains, cliffsides, farmland, and marshes. The majority of the project locations are in rural or undeveloped areas with little to no residential or commercial infrastructure nearby. The project is highly compatible with the existing landscape. Upon completion of construction, there would be no impact to the visual character of landscape due to the limited amount of disturbance and vegetation removal at most locations. Disturbed areas would be revegetated. There would likely be a positive visual change at the fish passage locations by creating and opening up views of the creeks that were previously confined to smaller culverts and restoring the creek channels and banks with natural streambed materials and native vegetation. The project includes no new sources of lighting.

Trees would need to be removed at some locations to construct temporary access roads. *[The following text has been edited since the draft environmental document was circulated.]* The majority of proposed tree removal would occur at PM 19.05, with 14 trees of multiple species proposed for removal ranging from 0.5 feet diameter at breast height (dbh) to 2.6 feet dbh with an average dbh of 1.6 feet. The density of the forest at this location, and the location of the 14 trees proposed for removal within the forest and mostly out of view from the traveled roadway, would result in little to no noticeable visual impacts. The area of tree removal is so small as to be inconsequential on a landscape scale. The work at PM 19.05 and the existing conditions are similar to other locations requiring an access road. In other project locations where large coast redwoods occur, methods would be utilized as needed to protect structural root systems to avoid injury (refer to Standard Measures in Section 1.8).

Given the above, Caltrans anticipates the project would have **"No Impact"** on visual resources. No mitigation would be required.

2.2 Agriculture and Forest Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project; the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board (CARB).

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	No	No	No	Yes
Would the project: b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	No	No	No	Yes
Would the project: c) Conflict with existing zoning for, or cause rezoning of forest land (as defined by Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	No	No	No	Yes
Would the project: d) Result in the loss of forest land or conversion of forest land to non-forest use?	No	No	No	Yes

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	No	No	No	Yes

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project. Del Norte County does not participate in the Williamson Act program (California Department of Conservation 2025a). There is no Farmland of Statewide Importance identified in the California Important Farmland Finder (California Department of Conservation 2025b). Impacts to agriculture and forest resources are not anticipated as the improvement of existing drainage facilities would not cause a change in zoning or land use or result in the loss or conversion of forest or agricultural land.

Given the above, Caltrans anticipates the project would have **"No Impact"** on agriculture and forest resources. No mitigation would be required.

2.3 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.

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: a) Conflict with or obstruct implementation of the applicable air quality plan?	No	No	No	Yes
Would the project: b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	No	No	No	Yes
Would the project: c) Expose sensitive receptors to substantial pollutant concentrations?	No	No	No	Yes
Would the project: d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	No	No	No	Yes

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the *Air Quality and Noise Analysis for the Culvert Rehabilitation & Fish Passage Project* dated January 2, 2025 (Caltrans 2025b).

Del Norte County is categorized as an attainment/unclassified area for all current National Ambient Air Quality Standards (NAAQS). Therefore, transportation conformity requirements do not apply. The project would not change traffic volume, fleet mix, speed, or any other factor that would cause an increase in emissions relative to the No-Build Alternative; therefore, this project would not cause an increase in operational emissions.

During construction, short-term degradation of air quality may occur due to the release of particulate emissions (airborne dust) generated by excavation, grading, hauling, and other construction-related activities. Emissions from construction equipment are also expected and would include carbon monoxide (CO), nitrogen oxides (NOx), volatile organic compounds (VOCs), directly emitted particulate matter (PM_{10} and $PM_{2.5}$), and toxic air contaminants, such as diesel exhaust particulate matter. Construction activities are expected to increase traffic congestion temporarily in the area, resulting in increases in emissions from traffic during the delays.

Fugitive dust would be generated during grading and construction operations. Sources of fugitive dust include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site may deposit mud on local streets, which could be an additional source of airborne dust after it dries. PM_{10} emissions may vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM_{10} emissions depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

Emissions resulting from fugitive dust and pollutants from construction equipment would be temporary and limited to the immediate area surrounding the construction site. Dust and emissions would be minimized in conformance with Caltrans Standard Specifications (SS), including SS 14-9 and SS 7-1.02C "Emissions Reduction," which require construction activities adhere to regulations mandated by the California Air Resources Board (CARB). A discussion of greenhouse gas emissions is provided in Section 2.8.

Given the above, Caltrans anticipates the project would have **"No Impact"** on air quality. No mitigation would be required.

2.4 Biological Resources

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, or NOAA Fisheries?	No	No	Yes	No
Would the project: b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	No	No	Yes	No
Would the project: c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	No	No	Yes	No
Would the project: 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?	No	No	No	Yes

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	No	No	No	Yes
Would the project: 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?	No	No	No	Yes

Regulatory Setting

Within this section of the document (2.4. Biological Resources), the topics are separated into Natural Communities, Wetlands and Other Waters, Plant and Animal Species, including Threatened and Endangered Species, and Invasive Species. Threatened and endangered special status plant and animal species include USFWS, NMFS and CDFW candidate species and CDFW Fully Protected (FP) species. CDFW Species of Special Concern (SSC) and California Native Plant Society (CNPS) rare plants (CNPS 2025) are covered in their respective Plant and Animal sections.

The following sections rely on Chapter 4 of the project *Natural Environment Study* (NES) (Caltrans 2025c) *[The following text has been added since the draft environmental document was circulated.]* as well as the Natural Environment Study Addendum (Caltrans 2026a) and the Biological Memo to File (Caltrans 2026c).

NATURAL COMMUNITIES OF SPECIAL CONCERN

This section of the document discusses Natural Communities of Special Concern. The focus is on biological communities, not individual plant or animal species. CDFW maintains a list of sensitive natural communities (SNCs). SNCs are those natural communities that are of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of projects. These communities may or may not contain special status taxa or their habitat.

This section also includes information on wildlife corridors, fish passage, and habitat fragmentation. Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value.

Habitat areas that have been designated as critical habitat (CH) under the Federal Endangered Species Act are discussed below in the Threatened and Endangered Species section.

WETLANDS AND OTHER WATERS

Wetlands and Waters of the United States and State are protected under several laws and regulations. The primary laws and regulations governing wetlands and other waters include:

- Federal: Clean Water Act (CWA)–33 United States Code (USC) 1344 (USACE–Section 404 Permits)
- Federal: Executive Order for the Protection of Wetlands (Executive Order [EO] 11990)
- State: California Fish and Game Code (CFGC)–Sections 1600–1607
- State: Porter-Cologne Water Quality Control Act–Section 3000 et seq.

ENVIRONMENTALLY SENSITIVE HABITAT AREAS (ESHA)

The California Coastal Commission (CCC) through the Coastal Act, and the County of Del Norte through the Local Coastal Program, are the jurisdictional agencies that have authority in the identification and protection of ESHAs.

An ESHA is defined as *"any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments*."

PLANT SPECIES

The U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) have 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. The primary laws governing plant species include:

- Federal Endangered Species Act (FESA)–USC 16 Section 1531, et seq. See also 50 Code of Federal Regulations (CFR) Part 402
- California Endangered Species Act (CESA)–California Fish and Game Code (CFGC) Section 2050, et seq.
- Native Plant Protection Act–California Fish and Game Code Sections 1900–1913
- California Environmental Quality Act (CEQA)–California Public Resources Code (PRC) Sections 21000–21177

ANIMAL SPECIES

The USFWS, NMFS, and CDFW have regulatory responsibility for the protection of special status animal species. The primary laws governing animal species include:

Federal laws and regulations relevant to wildlife include the following:

- Migratory Bird Treaty Act–16 USC Sections 703–712
- Fish and Wildlife Coordination Act–16 USC Section 661

State laws and regulations relevant to wildlife include the following:

- California Environmental Quality Act
- Sections 1600–1603 of the California Fish and Game Code
- Sections 4150 and 4152 of the California Fish and Game Code

THREATENED AND ENDANGERED SPECIES

The primary laws governing threatened and endangered species include:

- FESA–16 USC Section 1531, et seq. See also 50 CFR Part 402
- CESA–California Fish and Game Code Section 2050, et seq.
- CESA–California Fish and Game Code Section 2080
- CEQA–California Public Resources Code Sections 21000–21177
- Magnuson-Stevens Fishery Conservation and Management Act, as amended–16 USC Section 1801

INVASIVE SPECIES

The primary laws governing invasive species are Executive Order (EO) 13112 and NEPA.

Environmental Setting

Caltrans coordinated with fisheries biologists and water quality specialists, as well as agency personnel from USFWS, NMFS, CDFW, California State Parks, and National Parks. See Chapter 3 for a summary of these coordination efforts and professional contacts.

A Natural Environment Study (NES) dated February 2025 (Caltrans 2025c) was prepared for the project. *[The following text has been added since the draft environmental document was circulated.]* An NES Addendum dated March 2026 (Caltrans 2026a) and a Biological Memo to File (Caltrans 2026c) were also prepared for this project. The following information relies on the Natural Environment Study as well as the NES Addendum and Biological Memo to File.

The Environmental Study Limits (ESL), provided by the Caltrans Design team at the beginning of the environmental study process, are the anticipated boundaries for potential impacts. The ESL is the area encompassing the project footprint where there could potentially be direct and indirect disturbance by construction activity. The ESL is also used for identifying the Biological Study Area (BSA) needed for various biological resources. The BSA encompasses the ESL as well as any areas adjacent to the ESL that may potentially be affected by the project (e.g., noise and

visual disturbance). Since this project includes 19 drainage systems, it has multiple ESLs and BSAs that include both the culvert systems to be replaced as well as the staging areas needed to conduct the work. See Appendix A for individual ESLs, shown on project layouts.

The BSAs for the project include the following buffers:

- A 328-foot buffer surrounding the construction footprint for potential auditory and visual disturbance determined using the USFWS Guidance: *Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owl and Marbled Murrelets in Northwestern California* (Caltrans 2025c).
- A 100-foot buffer surrounding the coastal portion of the construction footprint to evaluate the potential presence and impacts to ESHAs for the Coastal Development Permit.

SENSITIVE NATURAL COMMUNITIES

Natural and semi-natural vegetation types within the BSA were identified based on the vegetation classification and keys in *A Manual of California Vegetation, 2nd edition and online updates* (Sawyer et al., 2009). The classification is based on the dominant plant species and emphasizes natural, existing vegetation. Vegetation types within the BSA were identified at the alliance level where possible. Rarity of each vegetation type was determined from CDFW's current California Natural Communities List, the current list of vegetation Alliances, Associations, and Special Stands, which notes which vegetation types are considered sensitive.

The global rank reflects the overall status of an element throughout its global range:

- G1 = Critically Imperiled—At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.
- G2 = Imperiled—At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.
- G3 = Vulnerable—At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.

- G4 = Apparently Secure—Uncommon but not rare; some cause for long-term concern due to declines or other factors.
- G5 = Secure—Common; widespread and abundant.

The state rank reflects the overall status of an element throughout its California range:

- S1 = Critically Imperiled—Critically imperiled in the state because of extreme rarity (often 5 or fewer populations) or because of factor(s), such as very steep declines, making it especially vulnerable to extirpation from the state.
- S2 = Imperiled—Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the state.
- S3 = Vulnerable—Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the state.
- S4 = Apparently Secure—Uncommon but not rare in the state; some cause for long-term concern due to declines or other factors.
- S5 = Secure—Common, widespread, and abundant in the state.

For alliances with State ranks of S1, S2, and S3, all associations within them are also considered sensitive. Alliances that are not sensitive may have associations within them that are sensitive; therefore, the natural vegetation types were identified to the association level as far as possible and where necessary to determine if sensitive associations are present. Semi-natural stands are not ranked because they are strongly dominated by non-native species.

Affected Environment

Field surveys to map vegetation types were conducted concurrently with the special status plant surveys and the wetland delineation surveys. During the field surveys, Stantec and ICF/Kingfisher biologists identified the boundaries of each vegetation type polygon and noted dominant species and associated species.

Table 4 below identifies the natural communities observed within the ESL, including Sensitive Natural Communities and Natural Communities of Concern. Additional detail for all communities is available in the NES (Caltrans 2025c). There are no habitat types within the ESL that are considered to be globally imperiled, globally critically imperiled, or state critically imperiled. Of the 12 alliances and associations identified within the ESLs (totaling 50.83 acres), five communities (18.38 acres) are considered SNCs by CDFW.

Table 4. Natural Communities within the ESL

Alliance or Association	Rarity (Global/State)	Sensitive	ESL Area (Acres)
Forest and Woodland			
Red alder forest *Alnus rubra* Forest Alliance	G5/S4	No	3.37
Red alder/salmonberry – red elderberry forest *Alnus rubra/Rubus spectabilis – Sambucus racemosa* Association	G3G4/SNR	Yes	5.81
Sitka spruce forest and woodland *Picea sitchensis* Forest and Woodland Alliance	G5/S2	Yes	4.53
Shining willow groves *Salix lucida* ssp. *lasiandra (S. lasiandra)* Forest and Woodland Alliance	G4/S3	Yes	0.30
Redwood woodland and forest *Sequoia sempervirens* Forest and Woodland Alliance	G3/S3	Yes	5.82
		Subtotal	**19.83**
Shrubland			
Coyote brush scrub *Baccharis pilularis* Shrubland Alliance	G5/S5	No	0.29
Salal – berry brambles *Gaultheria shallon – Rubus (ursinus)* Shrubland Alliance	GNR/S4	No	0.27
Himalayan blackberry scrub *Rubus armeniacus* Shrubland Semi-natural Alliance	GNA/SNA	No	2.66
Coastal dune willow–Sitka willow thickets *Salix hookeriana–Salix sitchensis* Shrubland Alliance	G4/S3	Yes	1.92
		Subtotal	**5.14**

Alliance or Association	Rarity (Global/State)	Sensitive	ESL Area (Acres)
Herbaceous			
Annual brome grasslands *Bromus* spp. Semi-natural Alliance	GNA/SNA	No	4.02
Reed Canary grass swards *Phalaris arundinacea* Semi-natural Alliance	GNA/SNA	No	0.15
Cattail marshes *Typha latifolia* Alliance	G5/S5	No	0.25
		Subtotal	**4.42**
Other			
Agriculture	N/A	N/A	2.13
Pavement/Barren	N/A	N/A	18.43
Urban	N/A	N/A	0.88
		Subtotal	**21.44**
		Total	**50.83**

Environmental Consequences

[The following paragraph has been edited with updated information from the NES addendum since the draft environmental document was circulated.] Minimal permanent and temporary impacts to Sensitive Natural Communities are expected within the ESLs as they are already fragmented by roads and development. These forest and vegetation types are generally less than one-half acre within the ESLs (Table 5). Based on design plans at the time of the NES Addendum (March 2026), there would be permanent impacts of 0.0357 acre, as shown below in Table 5. These impacts would be caused by installation of rock slope protection for bank stabilization and water energy dissipation. The impact area will continue to be assessed while design plans and resource mapping are refined.

Temporary impacts are estimated to be up to 1.450 acre (63,145 square feet) for access to, and restoration of culvert systems. Table 5 below summarizes the estimated temporary and permanent impacts on SNCs within the ESL. *[The following table has been edited with updated information from the Biological Memo to File since the draft environmental document was circulated.]*

Table 5. Estimated Temporary Impacts on Sensitive Natural Communities within the ESL

Post Mile	Vegetation Type	Global/ State Rank	Area of Temporary Impacts		Area of Permanent Impacts	
			Acre	Square Feet	Acre	Square Feet
10.80, 13.36, 13.83, 14.04/ 14.08, 22.36	Red alder/salmonberry – red elderberry forest *Alnus rubra/Rubus spectabilis – Sambucus racemosa* Association	G3G4/ SNR	0.457	19,907	0.0258	1,124
8.98, 10.80, 11.31, 11.92, 12.12, 22.36	Sitka spruce forest and woodland *Picea sitchensis* Forest and Woodland Alliance	G5/S2	0.643	28,009	-0-	-0-
40.71	Shining willow groves *Salix lucida* ssp. *lasiandra* (*S. lasiandra*) Forest and Woodland Alliance	G4/S3	0.0302	1,316	-0-	-0-
19.05	Redwood forest and woodland *Sequoia sempervirens* Forest and Woodland Alliance	G3/S3	0.255	11,108	0.00992	432
9.12, 11.72, 12.12	Coastal dune willow–Sitka willow thickets *Salix hookeriana–Salix sitchensis* Shrubland Alliance	G4/S4	0.0644	2,805	-0-	-0-
Total Impacts (rounded)			**1.450**	**63,145**	**0.0357**	**1,556**

Avoidance, Minimization and Mitigation Measures

As described in Section 1.8, several standard measures, including a Revegetation Plan and ESA fencing, would be implemented for areas impacted by construction to reduce overall impacts to SNCs within the project ESLs. Therefore, no project-specific avoidance and minimization measures are proposed for Sensitive Natural Communities.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed.

WETLANDS AND OTHER WATERS

Affected Environment

Wetland delineations were performed to survey for potentially jurisdictional wetland and non-wetland Waters of the U.S. and State and Coastal wetlands defined by the California Coastal Act within and adjacent to the project construction footprint at each location. A *Final Aquatic Resources Delineation Report* was prepared by Stantec Consulting Services, Inc. in accordance with U.S. Army Corps of Engineers (USACE) *Wetlands Delineations Manual* (Caltrans 2025c). The USACE methodology relies on a three-parameter approach in which criteria for hydrophytic vegetation, hydric soils, and wetland hydrology are all evaluated.

Coastal wetlands delineated in the Aquatic Resources Delineation Report occur in the Coastal Zone and are defined by the California Coastal Act as areas that are permanently or periodically covered with shallow water. *[The following text has been edited since the draft environmental document was circulated.]* Coastal wetlands only need to meet one parameter to be classified as a wetland.

Within the project ESLs, potentially jurisdictional aquatic resources were delineated by Stantec biologists from November 27 to December 1, 2023, January 7 to 11, 2024, and February 14, 2024. The delineation documented the potential presence of three parameter wetlands, coastal wetlands, and other waters as described in Tables 6 and 7 below. Wetlands include palustrine emergent, palustrine scrub-shrub, and palustrine forested.

Other waters include perennial streams, intermittent streams, ephemeral streams, and non-vegetated ditches. A total of 2.266 acres (3,417 linear feet) of aquatic resources were delineated, including 1.962 acres of three-parameter wetlands, 0.127 acre of coastal wetlands, and 0.177 acre of other waters.

Table 6. Aquatic Resources within the Environmental Study Limits

Post Mile (PM)	Cowardin[1]	Name (map)	Type	Isolated	Area (Acres)	Length (feet)	OHWM Width (feet)
Three-parameter Wetlands							
8.98	PEM	W2	Palustrine Emergent	No	0.058	—	—
	PEM	W3	Palustrine Emergent	No	0.023	—	—
	PEM	W4	Palustrine Emergent	No	0.056	—	—
	PEM	W5	Palustrine Emergent	No	0.010	—	—
9.12	PEM	W6	Palustrine Emergent	No	0.239	—	—
	PSS	W7	Palustrine Scrub-Shrub	No	0.369	—	—
9.53	PSS	W8	Palustrine Scrub-Shrub	No	0.069	—	—
	PSS	W9	Palustrine Scrub-Shrub	No	0.236	—	—
11.31	PEM	W10	Palustrine Emergent	No	0.016	—	—
	PFO	W11	Palustrine Forested	No	0.060	—	—
11.72	PSS	W12	Palustrine Scrub-Shrub	No	0.193	—	—
	PFO	W13	Palustrine Forested	No	0.101	—	—
11.92	PEM	W15	Palustrine Emergent	No	0.058	—	—
	PSS	W16	Palustrine Scrub-Shrub	No	0.002	—	—
	PSS	W37	Palustrine Scrub-Shrub	No	0.039	—	—
12.12	PEM	W14	Palustrine Emergent	No	0.067	—	—
13.36	PEM	W17	Palustrine Emergent	No	0.003	—	—
	PEM	W18	Palustrine Emergent	No	0.012	—	—
37.46	PEM	W26	Palustrine Emergent	No	0.016	—	—
	PEM	W27	Palustrine Emergent	No	0.002	—	—
	PEM	W28	Palustrine Emergent	Yes	0.017	—	—
39.01/ 39.02	PEM	W20	Palustrine Emergent	No	0.047	—	—
	PEM	W21	Palustrine Emergent	No	0.009	—	—
	PEM	W22	Palustrine Emergent	No	0.005	—	—
	PEM	W23	Palustrine Emergent	No	0.001	—	—
40.71	PSS	W29	Palustrine Scrub-Shrub	No	0.172	—	—
	PSS	W30	Palustrine Scrub-Shrub	No	0.033	—	—
	PSS	W31	Palustrine Scrub-Shrub	No	0.005	—	—
	PSS	W32	Palustrine Scrub-Shrub	No	0.002	—	—

Post Mile (PM)	Cowardin[1]	Name (map)	Type	Isolated	Area (Acres)	Length (feet)	OHWM Width (feet)
41.96	PEM	W35	Palustrine Emergent	No	0.022	—	—
	PEM	W36	Palustrine Emergent	No	0.020	—	—
Total Three-Parameter Wetlands					**1.962**	**—**	**—**
Coastal Wetlands							
40.71	PEM	W33	Palustrine Emergent	No	0.050	—	—
40.71	PFO	W34	Palustrine Forested	No	0.077	—	—
Total Coastal Wetlands					**0.127**	**—**	**—**
Other Waters							
10.80	R4SB	OW1	Intermittent Stream	No	0.002	45	1.5-3
	R6	OW2	Ephemeral Stream	No	<0.001	6	2
11.92	R2UB	OW3	Lower Perennial Stream	No	0.034	194	2-12
	R2UB	OW4	Lower Perennial Stream	No	0.003	16	7
13.36	R3UB	OW6	Upper Perennial Stream	No	0.004	69	1.5-2.5
	R4SB	OW15	Intermittent Stream	Yes	0.006	57	4
13.83	R6	OW5	Non-Vegetated Ditch	Yes	0.001	57	0.5
14.04/ 14.08	R4SB	OW18	Intermittent Stream	No	0.007	107	2.5-3
	R6	OW19	Non-Vegetated Ditch	No	0.002	156	0.5
	R6	OW20	Ephemeral Stream	No	0.002	74	1
19.05	R6	OW8	Ephemeral Stream	Yes	0.004	66	2
	R4SB	OW9	Intermittent Stream	No	0.014	346	1.5-2
22.36	R6	OW10	Ephemeral Stream	No	0.003	59	2
37.46	R6	OW24	Non-Vegetated Ditch	No	0.026	1120	1
	R6	OW22	Non-Vegetated Ditch	No	0.036	764	2
	R4SB	OW23	Intermittent Stream	No	0.004	33	5
	R3UB	OW11	Upper Perennial Stream	No	0.007	43	4-14
39.01/ 39.02	R4SB	OW12	Intermittent Stream	No	0.010	148	1.5-4
40.71	R4SB	OW14	Intermittent Stream (Delilah Creek)	No	0.011	57	4-11
Total Other Waters					**0.177**	**3,417**	**—**
Total Aquatic Resources					**2.266**	**3,417**	**—**

[1]Cowardin et al., 1979

Environmental Consequences

The project has the potential to result in permanent and temporary impacts to Waters of the U.S. and State, including jurisdictional wetlands and riparian habitat. Additional indirect temporary impacts caused by sedimentation or modification of hydrology could affect streams, wetlands, or riparian habitat. Temporary impacts may result from construction of access roads, work areas, containment systems, clear water diversions, and excavation work for culvert placement. Culvert realignment, restoration of flow lines, rock slope protection, and the extension of culvert systems would result in permanent impacts.

[The following text has been edited since the draft environmental document was circulated.] The project would result in approximately 4,098 square feet of temporary impacts and 168 square feet of permanent impacts to wetland Waters of the U.S. and State (Table 7). The project would result in approximately 600 square feet of temporary impacts and 168 square feet of permanent impacts to coastal wetlands at PM 40.71 (Table 7).

[The following text has been edited since the draft environmental document was circulated.] The project would result in approximately 1,678 square feet of temporary impacts to non-wetland Waters of the U.S. and State (“Other Waters”). The project would result in permanent impacts of approximately 85 square feet of Other Waters (Table 8). *[Tables 7 and 8 have been updated since the draft environmental document was circulated.]*

Table 7. Temporary and Permanent Impacts to Wetlands

Post Mile	Cowardin Type	Temporary (Square Feet)	Permanent (Square Feet)
8.98	Palustrine Emergent	240	--
9.12	Palustrine Emergent	345	--
	Palustrine Scrub-Shrub	230	--
9.53	Palustrine Scrub-Shrub	185	--
11.31	Palustrine Forested	270	--
	Palustrine Emergent	30	--
11.72	Palustrine Forested	175	--
	Palustrine Scrub-Shrub	175	--
39.01/ 39.02	Palustrine Emergent	67	--
40.71	Palustrine Emergent (also Coastal Wetland)	600	168
	Palustrine Scrub-Shrub	1,646	--
41.96	Palustrine Emergent	135	--
Total Wetland Impacts (Square Feet)		**4,098**	**168**
Acres		**0.0941**	**0.0039**

Table 8. Temporary and Permanent Impacts to Other Waters

Post Mile	Cowardin Type	Temporary Impacts		Permanent Impacts	
		Length (linear feet)	Area (square feet)	Length (linear feet)	Area (square feet)
11.92	Lower Perennial Stream (R2UB)	10	70	--	--
13.36	Intermittent Stream (R4SB)	--	--	24	85
19.05	Intermittent Stream (R4SB)	105	160	--	--
22.36	Ephemeral Stream (R6)	37	80	--	--
37.46	Upper Perennial Stream (R3UB)	97	856	--	--
39.01/ 39.02	Intermittent Stream (R4SB)	51	155	--	--
40.71	Intermittent Stream (R4SB)	25	357	--	--
Total Other Waters Impacts		**325**	**1,678**	**24**	**85**
Acres (Converted from SF)		**0.0385**		**0.00195**	

Avoidance, Minimization and Mitigation Measures

Impacts on jurisdictional waters and riparian vegetation would be minimized with incorporation of the Standard Measures and BMPs identified in Section 1.8. Therefore, no project-specific avoidance and minimization measures are proposed for jurisdictional waters and riparian vegetation.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed.

ENVIRONMENTALLY SENSITIVE HABITAT AREAS (ESHA)

Affected Environment

The proposed project contains multiple locations within the Coastal Zone. Because the project is focused on drainage improvements within perennial and ephemeral streams, many of the sites will be located within a designated ESHA.

An assessment of potential Environmentally Sensitive Habitat Areas (ESHA) within the project ESLs was prepared for Caltrans in November 2024 (Caltrans 2024a).

The ESHA resources identified within the ESLs include Coastal wetlands, sensitive natural communities, riparian areas, species of rare or endangered plants, and habitats of rare and endangered plants and animals. ESHA resources have been identified at PMs 10.80, 11.31, 11.72, 11.92, 12.12, 13.36, 13.83, 14.04/14.08, 22.36, 37.46, 40.71, and 41.96.

Environmental Consequences

Impacts to each type of ESHA resource resulting from the proposed project and restoration of impacted habitats in these locations will be determined in consultation with the County of Del Norte and/or the California Coastal Commission during the permitting phase of the project.

Avoidance, Minimization and Mitigation Measures

In addition to the Standard Measures and BMPs to protect ESHAs identified in Section 1.8, Caltrans would work with the County and/or CCC to minimize impacts to ESHA resources through the Coastal Development Permit process. Therefore, no project-specific avoidance and minimization measures are proposed for Environmentally Sensitive Habitat Areas.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed.

CRITICAL HABITAT

Affected Environment

Critical habitat refers to specific geographical areas designated by USFWS or NMFS for federally listed species with special management or protections. Located within a specific geographic area, these areas contain the physical or biological features essential to the conservation of endangered and threatened species (as determined by USFWS and/or NMFS) that may need special management or protection. This may include areas that were occupied by the specific species at the time it was listed, or those areas not occupied by the species at the time of listing but are considered essential to its conservation.

A summary of critical habitat types, location, and extent in the project area is provided in Table 9 below. *[Table 9 has been updated since the draft environmental document was circulated based on information in the NES Addendum.]*

Table 9. Critical Habitat within the Project Area

Species/Habitat	Post Mile	ESL Area (acres)	BSA Area (acres)
Marbled murrelet	12.12, 13.36, 13.83, 14.04-14.08, 19.05-19.11, 22.36 (within 328 feet)	11.14	88.54
Coho salmon–Southern Oregon/Northern California Coast (SONCC) ESU (Pop. 2)	8.98 (Salt Creek>Klamath River) 9.12 (Salt Creek>Klamath River) 9.53 (Salt Creek>Klamath River) 37.46 (Mello Creek>Morrison Creek>Smith River) (fish passage) 39.01/39.02 (Outlet>Rowdy Creek>Smith River) 40.71 (Delilah Creek>Smith River) fish passage)	None	Tributary connection only

Environmental Consequences

Marbled Murrelet

[The following paragraph has been updated since the draft environmental document was circulated based on information in the NES Addendum.] The scope of work requires the removal of approximately 4 trees within 328 feet (100 meters; visual disturbance distance per USFWS) of marbled murrelet (MAMU) critical habitat. Discussion with Caltrans' USFWS liaisons Matt Parker and Greg Schmidt resulted in agreement that such minimal tree removal would not result in substantial adverse effects to MAMU critical habitat. Full USFWS protocol-level, multi-year surveys would not be necessary, however pre-construction surveys and auditory/visual assessment should be performed . Construction sound levels are not anticipated to exceed the threshold of 20 or more decibels above the ambient conditions (81–90 dB) or exceed the maximum of 90 decibels overall. While no adverse effects to marbled murrelet or their critical habitat are anticipated, further analysis will be part of the informal consultation.

SONCC Coho Salmon

The project would result in the temporary loss of riparian and in-stream habitat. These temporary losses are not likely to have significant effects on the overall quantity or quality of rearing habitat available to juvenile coho salmon because existing stream access at PMs 37.46 and 40.71 are currently extremely limited. The effect on food production is also expected to be short-lived due to rapid recolonization of the streambed by macroinvertebrates following construction.

The proposed action would result in potential temporary impacts to waters connected to designated critical habitat for SONCC coho salmon. However, the project provides the opportunity for an eventual increase of approximately 170 linear feet of in-stream habitat at PM 37.46 (Mello Creek), as well as new fish passage and riparian habitat on both banks of newly constructed sections of the creek at PM 40.71 following restoration.

Consequently, the temporary adverse effects on both in-channel and riparian habitat resulting from construction would be minor and outweighed by the long-term beneficial effects on fish passage and restoration of access to spawning and rearing habitat upstream of the fish passage locations. The project is not likely to destroy or adversely modify designated critical habitat for SONCC coho salmon.

Fish Habitat Indirect Effects

All fish species' critical habitat is downstream from the project locations, as noted above in Table 9. During construction, water quality may be temporarily impaired due to short-term, localized increases in turbidity from activities that involve ground disturbance, or by contaminants in roadway stormwater runoff or accidental spills during construction, which could potentially compromise safe passage conditions for fish migration and reduce the quality of localized rearing habitat. Discussion with NMFS liaison Mario Minder resulted in agreement that any work performed within fish-bearing waters would use measures to minimize impacts, such as cofferdams or diversions and seasonal work windows. Work performed at the locations listed in Table 9 for fish would be on drainage systems which drain to waters that are critical habitat. Caltrans has made efforts to shorten downdrains and infiltrate stormwater to increase filtration prior to water reaching critical habitat.

Avoidance, Minimization and Mitigation Measures

Project-specific avoidance and minimization measures are not proposed for Critical Habitat with incorporation of Standard Measures and BMPs to protect water quality identified in Section 1.8.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed.

ESSENTIAL FISH HABITAT

Affected Environment

The ESLs and BSAs are within Essential Fish Habitat (EFH) for Chinook and coho salmon, and one location (PM 12.12) is at the coastal limit of EFH for coastal pelagic, groundfish, and highly migratory species. There would be no construction within essential fish habitat waters; however, construction could affect tributaries to EFH species streams by creating turbidity or other water quality changes.

Table 10 provides a summary of fish species EFH, location, and extent in the project area.

Table 10. Essential Fish Habitat in Project Area

Species/Habitat	Post Mile/Tributary	ESL Area (acres)	BSA Area (acres)
Pacific Salmon: Chinook and coho salmon–Southern Oregon/Northern California Coast ESU	8.98 (Salt Creek>Klamath River) 9.12 (Salt Creek>Klamath River) 9.53 (Salt Creek>Klamath River) 37.46 (Mello Creek>Morrison Creek>Smith River) 39.01/39.02 (Outlet>Rowdy Creek>Smith River) 40.71 (Delilah Creek>Smith River)	6.90	91.06
Coastal Pelagic EFH, Groundfish EFH, and Highly Migratory Species EFH	12.12 (Outlet to rocks/beach)	0.18	6.92

Environmental Consequences

Water quality within EFH may be temporarily impacted during project construction due to short term, localized increases in turbidity from activities that involve ground disturbance, or by contaminants in roadway stormwater runoff or accidental spills during construction. As the work would be done within drainages that flow to EFH streams, potentially minimal amounts of soil or contaminants could enter the river during construction or post-construction prior to full site stabilization. These water quality impacts could compromise safe passage conditions for fish migration and reduce the quality of spawning and rearing habitat, although impacts would be short-term and temporary.

There would also be a small temporal loss (over the period of construction) of riparian habitat as a result of vegetation removal during construction, which could degrade spawning and rearing habitat for Chinook salmon and coho salmon. Riparian vegetation would be restored upon completion of construction.

[Text has been removed since the draft environmental document was circulated.]

Avoidance, Minimization and Mitigation Measures

Caltrans would implement the Alternative BMPs (ABMPs) that were developed for the now expired 2013 NMFS Programmatic Biological Opinion or through future consultation with NMFS to minimize effects to EFH, as well as the appropriate Standard Measures and BMPs to protect water quality (Section 1.8). Treatment BMPs for hillside runoff are also included to minimize impacts to the marine habitat near the culvert outlet at PM 12.12.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed.

HABITAT CONNECTIVITY/FISH PASSAGE

Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Stream courses and their associated riparian areas are often used as migration corridors by aquatic and terrestrial species. If corridors are degraded, habitat fragmentation can result. Habitat fragmentation is the process by which habitat loss results in the division of large, continuous habitats into smaller, more isolated remnants, thereby lessening its biological value.

The proposed project would enhance terrestrial wildlife connectivity by increasing culvert diameters at most locations and installing a bridge at one location. Where feasible, culverts would be installed to the natural grade to allow for aquatic migration of amphibians, reptiles, semi-aquatic mammals, and fish.

To comply with Senate Bill 857, a single span bridge has been proposed at Mello Creek (PM 37.46). This bridge would allow for the rehabilitation of a priority fish passage location with current barrier issues. Fish passage improvement has also been proposed at Delilah Creek (PM 40.71), which would be realigned approximately 160 feet southeast (PM 40.68). A larger 12-foot-wide x 12-foot-high box culvert would be installed, and a naturalized streambed would be installed inside the culvert.

PLANT SPECIES

Botanical surveys were conducted in February, May, and August of 2024. Plants are considered to be of special concern based on (1) federal, state, or local laws regulating their development; (2) limited distributions; and/or (3) the habitat requirements of special status plants or animals occurring on-site.

Based on queries to the USFWS, CDFW-CNDDB and CNPS databases, Table 11 below indicates the special status (FESA/CESA) plant species with habitat present that could potentially occur within the project Environmental Study Limits (ESL). However, while none of these species were observed within the project site during the botanical surveys, they are included as suitable habitat was present in the appropriate elevational range. Following the initial botanical surveys, a plant that is likely Wolf's evening primrose was found within the project site, and the table has been updated to reflect this.

[The following table has been updated to include Wolf's evening primrose since the draft environmental document was circulated based on information in the NES Addendum.]

Table 11. Effect/Impact Findings for Special Status Plant Species with Habitat Present within the ESLs

Common Name	*Scientific Name*	Status Federal/State[1] CRPR[2]	Effect/ Impact Determination	Effect Finding for Critical Habitat (if applicable)
Alpine marsh violet	*Viola palustris*	--/--/2B.2	--	--
Angel's hair lichen	*Ramalina thrausta*	--/--/2B.1	--	--
Arctic starflower	*Lysimachia europaea*	--/--/2B.2	--	--
Black crowberry	*Empetrum nigrum*	--/--/2B.2	--	--
Bolander's lily	*Lilium bolanderi*	--/--/4.2	--	--
Bristle-stalked sedge	*Carex leptalea*	--/--/2B.2	--	--
Broad-lobed leptosiphon	*Leptosiphon latisectus*	--/--/4.3	--	--
Bunchberry	*Cornus unalaschkensis*	--/--/2B.2	--	--
California globe mallow	*Iliamna latibracteata*	--/--/1B.2	--	--
Coast checkerbloom	*Sidalcea oregana* ssp. *eximia*	--/--/1B.2	--	--
Coast fawn lily	*Erythronium revolutum*	--/--/2B.2	--	--
Crinkled rag lichen	*Platismatia lacunosa*	--/--/2B.3	--	--
Del Norte buckwheat	*Eriogonum nudum* var. *paralinum*	--/--2B.2	--	--
Fibrous pondweed	*Potamogeton foliosus* ssp. *fibrillosus*	--/--/2B.3	--	--
Ghost-pipe	*Monotropa uniflora*	--/--/2B.2	--	--
Giant fawn lily	*Erythronium oregonum*	--/--/2B.2	--	--
Green yellow sedge	*Carex viridula* ssp. *viridula*	--/--/2B.3	--	--
Henderson's fawn lily	*Erythronium hendersonii*	--/--/2B.3	--	--
Howell's fawn lily	*Erythronium howellii*	--/--/1B.3	--	--
Howell's montia	*Montia howellii*	--/--/2B.2	--	--
Klamath Mountain buckwheat	*Eriogonum hirtellum*	--/---/1B.3	--	--
Lagoon sedge	*Carex lenticularis* var. *limnophila*	--/--/2B.2	--	--

Common Name	*Scientific Name*	Status Federal/State[1] CRPR[2]	Effect/ Impact Determination	Effect Finding for Critical Habitat (if applicable)
Langsdorf's violet	*Viola langsdorffii*	--/--/2B.1	--	--
Leafy reed grass	*Calamagrostis foliosa*	--/SR/4.2	No Impact	--
Leafy-stemmed mitrewort	*Mitellastra caulescens*	--/--/4.2	--	--
Lyngbye's sedge	*Carex lyngbyei*	--/--/2B.2	--	--
Maidenhair spleenwort	*Asplenium trichomanes* ssp. *trichomanes*	--/--/2B.1	--	--
Maple-leaved checkerbloom	*Sidalcea malachroides*	--/--/4.2	--	--
Marsh pea	*Lathyrus palustris*	--/--/2B.2	--	--
Methuselah's beard lichen	*Usnea longissima*	--/--/4.2	--	--
Minute pocket moss	*Fissidens pauperculus*	--/--/1B.2	--	--
Northern clustered sedge	*Carex arcta*	--/--/2B.2	--	--
Northern meadow sedge	*Carex praticola*	--/--/2B.2	--	--
Nuttall's saxifrage	*Cascadia nuttallii*	--/--/2B.1	--	--
Oregon Coast paintbrush	*Castilleja litoralis*	--/--/2B.2	--	--
Oregon fireweed	*Epilobium oreganum*	--/--/1B.2	--	--
Oregon goldthread	*Coptis laciniata*	--/--/4.2	--	--
Oregon polemonium	*Polemonium carneum*	--/--/2B.2	--	--
Pacific gilia	*Gilia capitata* ssp. *pacifica*	--/--/1B.2	--	--
Perennial goldfields	*Lasthenia californica* ssp. *macrantha*	--/--/1B.2	--	--
Running-pine	*Lycopodium clavatum*	--/--/4.1	--	--
Sanford's arrowhead	*Sagittaria sanfordii*	--/--/1B.2	--	--
Seacoast ragwort	*Packera bolanderi* var. *bolanderi*	--/--/2B.2	--	--
Seaside bittercress	*Cardamine angulata*	--/--/2B.2	--	--
Siskiyou checkerbloom	*Sidalcea malviflora* ssp. *patula*	--/--/1B.2	--	--

Common Name	*Scientific Name*	Status Federal/State[1] CRPR[2]	Effect/ Impact Determination	Effect Finding for Critical Habitat (if applicable)
Siskiyou paintbrush	*Castilleja elata*	--/--/2B.2	--	--
Small groundcone	*Kopsiopsis hookeri*	--/--/2B.3	--	--
Trifoliate laceflower	*Tiarella trifoliata* var. *trifoliata*	--/--/3.2	--	--
Thurber's reed grass	*Calamagrostis crassiglumis*	--/--/2B.1	--	--
Twisted horsehair lichen	*Sulcaria spiralifera*	--/--/1B.2	--	--
Vanilla-grass	*Anthoxanthum nitens* ssp. *nitens*	--/--/2B.3	--	--
Western lily	*Lilium occidentale*	FE/SE/1B.1	No Effect No Impact	CH Absent
White beaked- rush	*Rhynchospora alba*	--/--/2B.2	--	--
White-flowered rein orchid	*Piperia candida*	--/--/1B.2	--	--
Wolf's evening-primrose	*Oenothera wolfii*	--/--/1B.1	--	--
Woodnymph	*Moneses uniflora*	--/--/2B.2	--	--

[1]Federal Status: FT = Federal Threatened; FE = Federal Endangered; FPT = Federal Proposed Threatened; FC = Federal Candidate; FP = Fully Protected

State Status: ST = State Threatened; SE = State Endangered; SCE = State Candidate Endangered; FP = Fully Protected; SSC = CDFW Species of Special Concern; SR = State Rare

[2]CRPR = California Rare Plant Rank

Based on the same database queries, the following special status (FESA/CESA) plant species were either not observed during botanical surveys, there is no suitable habitat, or the species is out of the elevational range of the project study area; therefore, these species would not be impacted by the project and are not discussed further:

- McDonald's Rockcress (*Arabis Mcdonaldiana*) - federal and state endangered
- Sand dune phacelia (*Phacelia argentea*) and critical habitat - federal threatened

Those special status (FESA/CESA or Rare) plant species that could potentially occur within the Environmental Study Limits are discussed below. *[Text has been added to include Wolf's evening primrose since the draft environmental document was circulated.]*

- Leafy reed grass (*Calamagrostis foliosa*) - state rare
- Western lily (*Lilium occidentale*) - federal and state endangered
- Wolf's evening primrose (*Oenothera wolfii*) – California Rare Plant Rank 1B.1, threatened in California

Leafy Reed Grass

Affected Environment

Leafy reed grass (*Calamagrostis foliosa*) occurs within Coastal bluff scrub and North Coast coniferous forest, growing at elevations from 0 to 1,220 feet. While suitable habitat for leafy reed grass occurs at ESLs with coniferous and rocky areas, there is only one CNDDB occurrence—found at Red Mountain in 1964—approximately eight miles east of the southern project area. Leafy reed grass was not encountered during botanical surveys conducted for this project.

Environmental Consequences

As there were no occurrences of this species found within the project ESLs, there are no anticipated impacts at any of the project locations.

Per CESA, Caltrans anticipates no impact to leafy reed grass from the proposed work.

Avoidance, Minimization and Mitigation Measures

As leafy reed grass would not be affected by the proposed work, no species-specific avoidance and minimization measures are proposed.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed for this species.

Western Lily

Affected Environment

Western lily (*Lilium occidentale*) occurs in coastal areas between Coos Bay, Oregon, and Eureka; and is typically found on well-drained, old beach washes overlain with wind-blown alluvium and organic topsoil, usually near margins of Sitka spruce at elevations ranging from 6.5 to 605 feet. While the project ESLs may support suitable habitat for western lily, none were observed within the ESLs during botanical surveys. As there are also no recorded occurrences of Western lily within the ESLs, it is not expected to be impacted by the project.

Environmental Consequences

As this species was not observed during botanical surveys and also has no known occurrences within the project ESLs, no impacts are anticipated.

Avoidance, Minimization and Mitigation Measures

As Western lily would not be affected by the proposed work, no species-specific avoidance and minimization measures are proposed.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed for this species.

[The following species has been added since the draft environmental document was circulated, based on the NES Addendum.]

Wolf's Evening Primrose

Affected Environment

Wolf's evening primrose (*Oenothera wolfii*) occurs in coastal areas in southern Oregon and northern California and is typically found on sandy, well drained soils in grasslands, coastal strand, roadsides, and coastal bluffs. This species easily hybridizes with its relative, the large-flowered evening primrose (*Oenothera glazioviana)*. The primrose plants observed during botanical surveys in 2024 were not identified as Wolf's evening primrose, and no impact was expected in the NES (Caltrans 2025c). However, flowering plants observed during a site visit on September 12, 2025, at PM 40.71 and PM 37.46 exhibited flower petal lengths and sepal lengths that strongly indicate this rare species. Further surveys of project locations with potential habitat would occur starting in 2026 during the species' blooming season to confirm species presence.

Environmental Consequences

As the primrose species present within the project limits may be Wolf's evening primrose, Caltrans is assuming presence at this time.

Per CESA, Caltrans anticipates less than significant impacts to this species with incorporation of the Standard Measures indicated in Section 1.8 and the avoidance and minimization measures indicated below from the NES Addendum (Caltrans 2026a).

Avoidance, Minimization and Mitigation Measures

To avoid and minimize impacts to this species, Caltrans would use ESA fencing to protect plants that exist outside of the project-related impact zone. If impacts to any of the individual plants are unavoidable, Caltrans would work with other responsible agencies, including CDFW, to plan appropriate offsets for the species. Minimization measures would include:

- Surveys to assess species presence and distribution would be implemented annually, including pre-construction surveys by Caltrans biologists.

- Seed collection would be implemented to reseed areas within adjacent suitable habitat located outside of the project-related impact zone.
- If found during pre-construction surveys, a transplanting effort would also be attempted within adjacent suitable habitat located outside of the project-related impact zone.
- Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed for this species.

ANIMAL SPECIES

Based on the USFWS, NMFS, and CDFW-CNDDB database queries, Table 12 below indicates those special status animal species which have habitat present and could potentially occur within the Environmental Study Limits/Biological Study Areas and thus could potentially be impacted by project construction.

[The following section and Table 12 have been edited since the draft environmental document was circulated, removing the potential for impacts to Pacific eulachon, Green sturgeon-Southern DPS, and Longfin smelt; based on the NES Addendum.]

Table 12. Special Status Animal Species with Habitat Present that May Potentially Occur within the Project Study Limits

Common Name	*Scientific Name*	Status Federal/ State	Effect/Impact Finding	Effect Finding for Critical Habitat or EFH (if applicable)
AMPHIBIANS				
Del Norte salamander	*Plethodon elongatus*	--/WL	No Impact	--
Foothill yellow-legged frog–North Coast Distinct Population Segment (DPS) (Pop. 1)	*Rana boylii*	--/SSC	No Impact	--
Northern red-legged frog	*Rana aurora*	--/SSC	No Impact	--
Pacific tailed frog	*Ascaphus truei*	--/SSC	No Impact	--
Southern torrent salamander	*Rhyacotriton variegatus*	--/SSC	No Impact	--

Common Name	*Scientific Name*	Status Federal/ State	Effect/Impact Finding	Effect Finding for Critical Habitat or EFH (if applicable)
BIRDS				
Bald eagle	*Haliaeetus leucocephalus*	DL/SE, FP	No Effect No Impact	--
Cackling (=Aleutian Canada) goose	*Branta hutchinsii leucopareia*	DL/WL, FP	No Effect No Impact	--
California condor	*Gymnogyps californianus*	NEP/SE, FP	No Effect No Impact	--
California brown pelican	*Pelecanus occidentalis californicus*	DL/DL	No Effect No Impact	--
Marbled murrelet	*Brachyramphus marmoratus*	FT/SE	No Effect No Impact	CH Present
Northern harrier	*Circus hudsonius*	--/SSC	No Effect No Impact	--
Northern spotted owl	*Strix occidentalis caurina*	FT/ST	No Effect No Impact	CH Absent
Osprey	*Pandion haliaetus*	--/WL	No Impact	--
Ruffed grouse	*Bonasa umbellus*	--/WL	No Impact	--
White–tailed kite	*Elanus leucurus*	--/FP	No Impact	--
FISH				
Chinook salmon–Southern Oregon/ Northern California Coast ESU (Pop. 14)	*Oncorhynchus tshawytscha*	--/SSC	No Effect No Impact	EFH Present
Chinook salmon–Upper Klamath and Trinity Rivers ESU (Pop. 30)	*Oncorhynchus tshawytscha*	FC/ST	No Effect No Impact	--
Coastal cutthroat trout	*Oncorhynchus clarkii clarkii*	--/SSC	No Impact	--
Coho salmon–Southern Oregon/ Northern California Coast (ESU) (Pop. 2)	*Oncorhynchus kisutch*	FT/ST	No Effect No Impact	CH Present EFH Present
Pacific lamprey	*Entosphenus tridentatus*	--/SSC	No Impact	--
Steelhead–Klamath Mountains Province DPS (Pop. 1)	*Oncorhynchus mykiss irideus*	--/SSC	No Impact	--

Common Name	*Scientific Name*	Status Federal/ State	Effect/Impact Finding	Effect Finding for Critical Habitat or EFH (if applicable)
Western brook lamprey	*Lampetra richardsoni*	--/SSC	No Impact	--
MAMMALS				
Fisher–West Coast DPS	*Pekania pennanti*	--/SSC	No Impact	--
Pacific (Humboldt) marten–Coastal DPS	*Martes caurina humboldtensis*	FT/SE, SSC	No Effect No Impact	CH Absent
Ringtail	*Bassariscus astutus*	--/FP	No Impact	--
Sonoma tree vole	*Arborimus pomo*	--/SSC	No Impact	--
Townsend's big- eared bat	*Corynorhinus townsendii*	--/SSC	No Impact	--
REPTILES				
Northwestern pond turtle	*Actinemys marmorata*	FPT/SSC	No Effect No Impact	--

[1] **Federal Status**: FE = Endangered; FPT = Proposed Threatened; FT = Threatened; FC = Candidate; DL = Delisted

State Status: SE = Endangered; ST = Threatened; SCT = Candidate Threatened; SCE = Candidate Endangered; FP = CDFW Fully Protected; SSC = CDFW Species of Special Concern; SR = State Rare; WL = CDFW Watch List Species

(*Source: CDFW-CNDDB 2024; USFWS 2024; NMFS 2024)*

Those special status animal species that will not be impacted by the project, either because the project is out of the geographical range of the species or there is no suitable habitat for the species, are listed below and will not be discussed further.

- American peregrine falcon (*Falco peregrinus anatum*)
- Bank swallow (*Riparia riparia*)
- Black swift (*Cypseloides niger*)
- Double-crested cormorant (*Nannopterum auritum*)
- Fork-tailed storm-petrel (*Hydrobates furcatus*)
- Golden eagle (*Aquila chrysaetos*)
- Hawaiian petrel (*Pterodroma sandwichensis*)

- Little willow flycatcher (*Empidonax traillii brewsteri*)
- Rhinoceros auklet (*Cerorhinca monocerata*)
- Short-tailed albatross (*Phoebastria (=Diomedea) albatrus*)
- Tufted puffin (*Fratercula cirrhata*)
- Western snowy plover (*Charadrius nivosus nivosus*)–Pacific Coast DPS
- Yellow-billed cuckoo (*Coccyzus americanus occidentalis*)–Western U.S. DPS
- Yellow rail (*Coturnicops noveboracensis*)
- Chinook salmon (*Oncorhynchus tshawytscha*)–California Coastal Evolutionarily Significant Unit (ESU) (Pop. 17)
- Green sturgeon (*Acipenser medirostris*)–Northern DPS (Pop. 2)
- Green sturgeon (*Acipenser medirostris*)–Southern DPS
- Longfin smelt (*Spirinchus thaleichthys*)
- Lower Klamath marbled sculpin (*Cottus klamathensis polyporus*)
- Pacific eulachon (*Thaleichthys pacificus*)–Southern DPS
- Steelhead (*Oncorhynchus mykiss irideus*)–Northern California (NC) DPS *winter-run* (Pop. 49)
- Steelhead (*Oncorhynchus mykiss irideus*)–Northern California (NC) DPS *summer-run* (Pop. 16) -
- Tidewater goby (*Eucyclogobius newberryi*)
- Monarch butterfly (*Danaus plexippus*)
- Oregon silverspot butterfly (*Speyeria zerene hippolyta*)
- Suckley's cuckoo bumble bee (*Bombus suckleyi*)
- Western bumble bee (*Bombus occidentalis*)
- Pallid bat (*Antrozous pallidus*)
- Blue whale (*Balaenoptera musculus*)
- Fin whale (*Balaenoptera physalus*)
- Guadalupe fur-seal (*Arctocephalus townsendi*)

- Humpback whale (*Megaptera novaeangliae*)
- North Pacific right whale (*Eubalaena japonica*)
- Sei whale (*Balaenoptera borealis*)
- Southern resident killer whale (*Orcinus orca*)
- Southern sea otter (*Enhydra lutris nereis*)
- Stellar sea lion (*Eumetopias jubatus*)
- Green sea turtle (*Chelonia mydas*)–East Pacific DPS
- Leatherback sea turtle (*Dermochelys coriacea*)
- Olive Ridley sea turtle (*Lepidochelys olivacea*)

Amphibians

Affected Environment

Areas within project ESLs or BSAs may support habitat for the following amphibians designated as state Species of Special Concern (SSC):

- Foothill yellow-legged frog (FYLF) (*Rana boylii*)–North Coast DPS (clade)
- Northern red-legged frog (NRLF) (*Rana aurora*)
- Pacific tailed frog (*Ascaphus truei*)
- Southern torrent salamander (*Rhyacotriton variegatu*s)

These species may also use areas within the project ESLs as dispersal corridors to and from more suitable aquatic breeding habitats. These species use a variety of habitats found in the project ESLs such as roadside ditches, deep pools and riffles, shaded streams and seeps, woodlands, rocky substrates, and sandy or rocky banks. Northern red-legged frog was also observed at PM 9.53 during a project site visit in August of 2024.

Environmental Consequences

Surveys for special status amphibians were not conducted; however, these species may be present in drainages around the culverts and nearby riparian habitat and could occur within the ESLs at numerous locations. Amphibians could be impacted

by construction equipment as well as culvert replacement activities such as excavation.

Project construction could degrade water quality, such as by increasing sediment loads associated with ground disturbance. Accidental spills of fuels, oils, or other construction-related fluids into or in close proximity to waters where intake work would occur could also degrade water quality. However, the outcome of this project will improve water quality and amphibian passage by upsizing the majority of culverts as well as daylighting several culverts.

Instream work and any water diversions would occur during the June 15 to October 15 in-water work season when flows are low and amphibians are unlikely to be present in the work area. Temporarily disturbed areas would be restored to their pre-project conditions to the greatest extent practicable, which would facilitate revegetation of native plant species and minimize temporary impacts to the stream bank and channel.

Due to the limited disturbance, short-term nature of the activities, and the presence of suitable habitat adjacent to the ESLs, Caltrans does not anticipate any adverse effects to these species. As such, there would be no substantial impacts to Foothill yellow-legged frog, Northern red-legged frog, Pacific tailed frog, and Southern torrent salamander.

Avoidance, Minimization and Mitigation Measures

Caltrans would implement the appropriate Standard Measures and BMPs (Section 1.8) to protect water quality to minimize the effects to aquatic species. Therefore, no project-specific avoidance and minimization measures are proposed for aquatic species.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed for this species.

Bald Eagle

Affected Environment

The bald eagle is a state endangered species that is also federally protected by the Bald and Golden Eagle Protection Act. They typically nest in large trees within one

mile of fishable waters, within or directly adjacent to forests with large trees that provide suitable nesting structures. Nesting occurs February through August. In Del Norte County, bald eagles are strongly tied to open water and undisturbed shorelines; with migratory or otherwise nonresident individuals attracted to river corridors and estuaries from October to March.

Environmental Consequences

No species-specific surveys were performed for this species, and no bald eagles or nests were observed within the BSAs during field visits. CNDDB lists a 2008 occurrence approximately 1.6 miles northeast of PM 37.46, along with an occurrence on the Klamath River approximately 4 miles south of PM 8.98. Project activities are not anticipated to impact bald eagles.

Avoidance, Minimization and Mitigation Measures

Implementation of Standard Measures and Best Management Practices for bird protection (Section 1.8) would avoid impacts to bald eagles. Therefore, no project-specific avoidance and minimization measures are proposed for bald eagle.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed for this species.

Cackling (= Aleutian Canada) Goose

Affected Environment

The cackling (=Aleutian Canada) goose is a CDFW "watch list" species. This subspecies nests on the Aleutian Islands, often on steep grassy slopes above shoreline cliffs. During migration and winter, cackling geese gather in flocks in open, mostly treeless habitats. They forage in the freshwater marshes, salt marshes, mudflats, meadows, and agricultural fields common in western Del Norte County.

Environmental Consequences

No species-specific surveys were conducted. The ESLs contain marginal foraging habitat and the BSAs in open areas include potentially good foraging areas. The CNDDB lists the nearest occurrence of this species at 6 miles southwest of the ESL at PM 41.96. Project activities are not anticipated to impact cackling geese.

Avoidance, Minimization and Mitigation Measures

Implementation of Standard Measures and Best Management Practices for bird protection (Section 1.8) would avoid impacts to cackling geese. Therefore, no project-specific avoidance and minimization measures are proposed for cackling geese.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed for this species.

California Condor

Affected Environment

The California condor is a federal nonessential population (NEP) and state endangered and state fully protected; however, in this region of Northern California they are designated as a nonessential experimental population (Caltrans 2026a). In March 2022 the first experimental population of California condors were released in Redwood National and State parks. Nest sites are located in cavities in cliffs, in large rock outcrops, or in large trees. Traditional roosting sites are on cliffs or large trees, often near feeding sites. Nest site selection occurs from December through the spring months. Condors normally lay a single egg between late January and early April. The experimental release site is about 20 miles south of the ESL at PM 8.98, and condors may range up to 100 miles per day.

Environmental Consequences

No species-specific surveys for condors were conducted, and condors were not observed within any of the ESLs. While nesting habitat was not observed, there may be suitable foraging or roosting habitat within the BSAs. At present, this experimental population comprises only juveniles and is located in an undisclosed remote area of the Redwood National and State Park. On March 3, 2026, the Yurok Tribe announced strong evidence indicating that a condor pair may be incubating an egg in an old growth redwood tree in an undisclosed, remote section of the park. Due to the remoteness of the location where this NEP is established, impacts to condors are not anticipated.

Avoidance, Minimization and Mitigation Measures

Due to the experimental populations current isolation of the species within remote areas in the Redwood National and State Park east of Orick, no project-specific avoidance and minimization measures are proposed for California condors.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed for this species.

Marbled Murrelet

Affected Environment

Marbled murrelet (MAMU) is federally threatened and state endangered with over 3.6 million acres of critical habitat designated in Washington, Oregon, and California. They occur along the Pacific coast of North America from Alaska to central California, where they forage in the ocean, primarily within a few miles of shore, and fly inland to nest in mature conifers. Nesting habitat is primarily associated with large tracts of old-growth forest, typically within 50 miles from shore, characterized by large trees, a multistoried stand, and moderate to high canopy closure. Nests are not built, but an egg is laid in a depression of moss or other debris on the limb of a large conifer. Suitable nest structures include large mossy horizontal branches, mistletoe infections, structural deformities of the tree, and other such structures.

During the March to September breeding season, MAMU typically fly along river corridors for their morning and evening nest visits. Major factors attributed to their decline from historic levels are loss of nesting habitat due to commercial timber harvest and forage management practices, poor reproductive habitat due to habitat fragmentation and predation, and mortality from net fisheries and oil spills (USFWS 1997).

The primary physical and biological features of critical habitat for MAMU are individual trees with potential nesting platforms, forested areas within 0.5 mile of individual trees with potential nesting platforms, and a canopy height of at least one-half the site-potential tree height (USFWS 2024b).

Environmental Consequences

Protocol-level surveys were not conducted for MAMU within the project ESLs. MAMU detections are listed in CNDDB along the project area's southern extent. A total of 11.14 acres of MAMU critical habitat are mapped within the BSAs of seven project locations (PMs 12.12, 13.36, 13.83, 14.04, 14.08, 19.05, and 19.11). After consultation with USFWS, it was determined that the project's limited habitat removal would not constitute an adverse effect to the species. Of the total MAMU critical habitat area (11.14 acres), the project would temporarily impact 0.63 acre of critical habitat and permanently impact 0.07 acre due to RSP placement. However, these impacts would be on the forest floor, where it is highly unlikely individual MAMU would be found; therefore, no impacts to MAMU are anticipated.

Avoidance, Minimization and Mitigation Measures

[The following paragraph has been edited since the draft environmental document was circulated.]

The USFWS informal consultation process would be used for Section 7 consultation for potential effects to MAMU. With implementation of all USFWS measures for MAMU, combined with Standard Measures and Best Management Practices for bird protection (Section 1.8), this project is not likely to adversely affect MAMU. Therefore, no project-specific avoidance and minimization measures are proposed for marbled murrelet.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed for this species.

Northern Harrier

Affected Environment

Northen harrier is a state SSC in California, where they nest and forage in tall grasslands. They usually choose shrubby vegetation at marsh edges where they build large mound nests from sticks. Harriers typically fly low over the ground when hunting, weaving back and forth over fields and marshes as they watch for small animals. They eat on the ground and perch on low posts or tree branches. In migration and winter, harriers typically move south away from areas that receive heavy snow cover, ending up in open habitats similar to breeding habitats.

Environmental Consequences

No species-specific surveys were conducted. Some ESLs contain marginal foraging and nesting habitat along the sections of marsh or grassland adjacent to the southern portion of the project at PM 8.98 to PM 12.12. The nearest occurrence in CNDDB of this species is 5 miles southwest of the project ESLs.

Avoidance, Minimization and Mitigation Measures

Implementation of Standard Measures and Best Management Practices for bird protection (Section 1.8) would avoid impacts to northern harriers. Therefore, no project-specific avoidance and minimization measures are proposed for northern harrier.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed for this species.

Northern Spotted Owl

Affected Environment

The northern spotted owl (NSO) is a federally and state threatened species that occurs in southwest British Columbia and through the Cascade Mountains and coastal ranges in Washington, Oregon, and south to Marin County in California. Nesting, roosting, and foraging occurs in structurally complex, older, coniferous forests where NSO tend to retain the same breeding territories from year to year. Nests are usually in old-growth coniferous trees and Douglas-fir is the most common nest tree species. Courtship begins in February or March, with one to four eggs laid in late March or April, and young-of-the-year leaving the nest in late May or June, while their parents continue to feed them until late August or September.

Environmental Consequences

Protocol-level surveys were not conducted for NSO. The most recent observations listed in CNDDB of NSO occurred in 1983 and 1995, each within one mile of the project ESLs at PM 9.53 and PM 19.05. Because there is also suitable nesting habitat from PMs 13.36 to 22.36, Caltrans would assume NSO presence, despite no recent observations or known nesting sites. The project does not include designated critical habitat for NSO.

After consultation with USFWS, it was determined that the limited habitat removal and disturbance would not constitute an adverse effect; however, standard pre-construction surveys and auditory and visual assessments would be performed.

Avoidance, Minimization and Mitigation Measures

[The following paragraph has been edited since the draft environmental document was circulated.]

The USFWS informal consultation process would be used for Section 7 consultation for potential effects to NSO. With implementation of all USFWS measures for NSO, combined with Standard Measures and Best Management Practices for bird protection (Section 1.8), this project is not likely to adversely affect NSO. Therefore, no project-specific avoidance and minimization measures are proposed for northern spotted owl.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed for this species.

Osprey

Affected Environment

Osprey are a CDFW state "watch list" species. They are still common and widespread in the state, and currently at low risk for extinction. Osprey feed almost exclusively on fish and inhabit areas near shallow waters, either fresh or salt, that offer a steady source of food. Nests are usually built on snags, treetops, or crotches between large branches and trunks, on cliffs or human-built platforms, in open surroundings for easy approach, and elevated for safety from ground predators.

Environmental Consequences

No species-specific surveys were conducted for this species. The CNDDB does list osprey nests as potentially being within line of site from the project location at PM 8.98. No nests would be removed or altered during project activities, and osprey are unlikely to be affected by the proposed project work due to the minimal amount of vegetation removal planned, combined with the temporary nature of construction.

Avoidance, Minimization and Mitigation Measures

Implementation of Standard Measures and Best Management Practices for bird protection (Section 1.8) would avoid impacts to osprey.

A pre-construction osprey survey would be performed to identify potential threats to osprey from project activities, while providing the opportunity to develop appropriate avoidance measures if needed. Therefore, no project-specific avoidance and minimization measures are proposed for osprey.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed for this species.

Ruffed Grouse

Affected Environment

Ruffed grouse are a CDFW state "watch list" species. They can be found in riparian habitats in the Pacific Northwest (including northern California). Grouse populations are higher in areas where logging, burning, and other disturbance create early successional forests with young stands of trees, which grouse use for both cover and food. Grouse populations are lower in mature forests and in small patches of woods surrounded by agricultural lands. They feed almost exclusively on vegetation, including leaves, buds, and fruits of ferns, shrubs, and woody plants. Their nests are simple, hollowed-out depressions in leaves on the forest floor and are typically at the base of a tree, stump, or rock.

Environmental Consequences

No species-specific surveys were conducted for this species. While there are no occurrences listed in CNDDB, there are potential foraging areas within the mixed forest or riparian areas of the project BSAs. Ruffed grouse are unlikely to be affected by the proposed work.

Avoidance, Minimization and Mitigation Measures

Implementation of Standard Measures and Best Management Practices for bird protection (Section 1.8) would avoid impacts to ruffed grouse. Therefore, no project-specific avoidance and minimization measures are proposed for ruffed grouse.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed for this species.

White-Tailed Kite

Affected Environment

The white-tailed kite is a state fully protected species in California. It is a year-round resident in coastal and valley lowlands, rarely found away from agricultural areas. The white-tailed kite preys mostly on voles and other small, diurnal mammals, and occasionally on birds, insects, reptiles, and amphibians. It forages in open grasslands, meadows, farmland, and over emergent wetlands. White-tailed kites breed in lowland grasslands, agricultural areas, wetlands, oak-woodland and savannah habitats, and riparian areas associated with open areas. These kites typically nest in the upper third of trees that may be 10-160 feet tall. These can be open country trees growing in isolation, or at the edge of or within a forest. The project BSAs have suitable foraging habitat, but there is no suitable nesting habitat within any ESLs.

Environmental Consequences

No species-specific surveys were conducted for this species, and there are no recent CNDDB listed occurrences in Del Norte County. Preconstruction bird surveys would be performed as part of the Standard Measures and BMPs (Section 1.8) to identify potential threats to nesting birds from project activities and to provide opportunity to develop appropriate avoidance measures. Due to the lack of suitable nesting habitat within the ESLs, impacts to white-tailed kites are not anticipated.

Avoidance, Minimization and Mitigation Measures

Implementation of Standard Measures and Best Management Practices for bird protection (Section 1.8) would avoid impacts to white-tailed kite. Therefore, no project-specific avoidance and minimization measures are proposed for white-tailed kite.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed for this species.

FISH

Affected Environment

Suitable habitat for the following federal and/or state listed fish species and state Species of Special Concern (SSC) was identified within multiple BSAs. This includes habitat for:

- Chinook salmon (*Oncorhynchus tshawytscha*)–Southern Oregon/Northern California Coast (SONCC) ESU (Pop. 14) – state SSC
- Coastal cutthroat trout (*Oncorhynchus clarkii clarkii*) – state SSC
- Coho salmon (*Oncorhynchus kisutch*)–SONCC ESU (Pop. 2) – federal and state threatened
- Pacific lamprey (*Entosphenus tridentatus*) – state SSC
- Steelhead (*Oncorhynchus mykiss irideus*)–Klamath Mountains Province DPS (Pop. 1) – state SSC
- Western brook lamprey (*Lampetra richardsoni*) – state SSC

Table 8 shows critical habitat locations and extent of habitat within the ESLs and BSAs. No Chinook critical habitat exists near the project area. Coho salmon critical habitat includes tributaries of both the Smith and Klamath rivers (discussed in Section 2.4 Critical Habitat). Fish passage improvements at Mello Creek (PM 37.46) and Delilah Creek (PM 40.71) are anticipated to increase use by salmonids in these Smith River tributaries.

Environmental Consequences

Chinook Salmon, Coho Salmon, Coastal Cutthroat Trout, and Steelhead

Project elements that require stream diversion, such as culvert demolition and restoration of the creek banks, would take place during the summer months when fish abundance is at its lowest. However, several activities associated with the project could negatively impact coho and other salmonids if present during in-stream work. Potential impacts include:

- Water Quality—Temporary increases in turbidity, suspended sediment, and contaminant risk during in-water construction and demolition activities

- Noise and Visual Disturbance—Potential behavioral effects from general construction/demolition noise and visual disturbance
- Demolition and Construction Noise—Potential injury and mortality of fish from exposure to demolition and construction noise exceeding established thresholds for injury
- Direct Injury—Potential injury/mortality from direct contact with construction equipment/materials and capture/relocation
- Fish Passage—Potential migration delays and increased exposure of juveniles to predation during passage through the clear water diversion
- Habitat Impacts—Temporary loss of riparian habitat from clearing of vegetation for construction access and streambank stabilization, temporary loss of in-channel habitat from channel dewatering, and permanent effects to in-channel conditions from stream channel and bank stabilization

Pacific Lamprey and Western Brook Lamprey

Dewatering and stream flow management for work at the locations associated with the Salt Creek marsh area (PMs 8.98, 9.12, 9.53) could cause a rapid fluctuation in the water level and strand lamprey ammocoetes in the substrate. Clear water diversion could also impede upstream migrations by adult lamprey and downstream movement of ammocoetes and macrophthalmia (pre-adults).

Excavation of substrate within the dewatered water channel could affect all age classes of ammocoetes, if present. Contaminants from accidental spills could also harm or kill ammocoetes, which are thought to have a higher propensity for accumulating toxins given they spend three to seven years filter feeding. Ammocoetes spend most of their time burrowed in stream substrates, making them particularly susceptible to activities that involve excavation, stranding (due to dewatering), or accidental contaminant spills

Avoidance, Minimization and Mitigation Measures

Given the small amount of habitat affected, the short duration/intermittent nature of the work, and implementation of the Standard Measures and BMPs in Section 1.8 and Alternative BMPs (ABMPs) to avoid impacts, the proposed project is not likely to result in substantial population-level effects to special status salmonids or other

listed fish species or SSC because no impacts have been identified that require mitigation.

In addition, the Mello Creek and Delilah Creek fish passage improvements would result in an increase in the amount and quality of stream habitat by restoring banks and opening access to upstream habitat.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed for these species. Species-specific avoidance and minimization measures are discussed below.

Chinook Salmon, Coho Salmon, Coastal Cutthroat Trout, and Steelhead

The Standard Measures and BMPs outlined in Section 1.8 would be implemented to minimize potential impacts to water quality. These include implementation of standard erosion and sediment control measures, pollution prevention measures, and stormwater treatment measures. In addition, Caltrans would implement the applicable ABMPs from the future NMFS Consultation to minimize effects on listed salmonids.

The contractor would be required to prepare and submit a *Construction Site Temporary Clear Water Diversion System Plan* to Caltrans for authorization prior to any clear water diversion. The Clear Water Diversion Plan would include an Aquatic Species Relocation Plan that would be prepared and implemented by a qualified biologist. Provisions for dewatering and aquatic species relocation would include the following measures:

- Where gravel is removed temporarily to facilitate construction, it would be stored adjacent to the site and then placed back in the channel post-construction at approximately pre-project depth and gradient. If necessary, gravels would be cleaned before returning them to the channel.
- Any gravel added to the channel to create a flat working surface would be removed prior to removal of the diversion.
- Water generated from the dewatering operations from cofferdams would be disposed of per the Field Guide to Construction Site Dewatering (Caltrans 2014) and the Caltrans-authorized Dewatering Plan.

Pacific Lamprey and Western Brook Lamprey

In-water salvage techniques for salmonids are often not effective for salvaging lamprey ammocoetes, as ammocoetes may not emerge from dewatered substrates until they begin to desiccate, which often occurs at night after other fish salvage operations have ceased. In addition to the Standard Measures and BMPs outlined in Section 1.8, dewatering and relocation efforts for lamprey would be performed in accordance with *USFWS Best Management Practices to Minimize Adverse Effects to Pacific Lamprey*, which includes the following measures:

1. A pre-construction survey conducted by a professional fisheries biologist in areas affected by dewatering in the Salt Creek marsh area (PMs 8.98, 9.12, 9.53), and other applicable locations, prior to construction to identify lamprey presence.
2. Electrofishing would be performed prior to dewatering to relocate ammocoetes, if present within the work zone, to a safe area away from the construction site.
3. Dewatering would be performed slowly over several days, or at a minimum overnight, to allow opportunity for any remaining lamprey to relocate on their own.
4. The orientation, siting, and type of fish screens used for dewatering operations would be selected to prevent entrainment by lamprey.
5. A qualified biologist would be present during channel excavations to sift through removed substrate to salvage any remaining ammocoetes, returning them to the stream channel a safe distance away from the construction site.

Pacific Fisher–West Coast DPS-Northern California ESU

Affected Environment

Small portions of the BSAs contain larger trees with potential resting locations and suitable denning cavities at PMs 8.98, 9.12, 9.53, 10.80, 11.31, 11.72, 11.92, 13.36, 13.83, 14.04-14.08, 19.05-19.11, 22.36, and 39.01–39.02. However, there are no potential den structures or day resting locations within the ESL where work would be conducted. Fishers are a nocturnal species averse to interacting with humans. They would likely be absent from otherwise suitable habitat within the BSAs due to

high levels of human disturbance, such as areas bordering roads, trails, or human habitation. No signs of fisher occupation were observed.

Environmental Consequences

This project is not anticipated to impact fisher. Although there is potentially suitable foraging, resting, or denning habitat for fisher adjacent to the ESLs, there are no potential den structures or day resting locations within the ESLs where work would be conducted.

Avoidance, Minimization and Mitigation Measures

No avoidance and minimization measures are proposed because no impacts on fisher have been identified that require such measures.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed for this species.

Pacific (Humboldt) Marten–Coastal DPS

Affected Environment

There is potentially suitable foraging, resting, or denning habitat for Pacific (Humboldt) marten within the BSAs in forests at PMs 8.98, 9.12, 9.53, 10.80, 11.31, 11.72, 11.92, 13.36, 13.83, 14.04-14.08, 19.05-19.11, and 22.36; however, the BSAs are outside of designated critical habitat. Further, martens are unlikely to occur within the ESLs due to proximity to the busy highway.

Environmental Consequences

There are no potential den structures or day resting locations within the ESL where work would be conducted. The USFWS Programmatic Letter of Concurrence (2022) would be used for Section 7 consultation for potential effects to Pacific (Humboldt) marten.

Avoidance, Minimization and Mitigation Measures

[The following paragraph has been edited since the draft environmental document was circulated.]

The USFWS informal consultation process would be used for Section 7 consultation for potential effects to Pacific (Humboldt) marten. As tree removal would occur between September 15 and January 31, outside of the Pacific (Humboldt) marten denning season, no additional avoidance and minimization measures would be required.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed for this species.

Ringtail

Affected Environment

The project's region is within the known distribution of this species. No CNDDB occurrence information is available, as CNDDB does not track ringtail observations. Although focused surveys for ringtail were not conducted, no potential natal dens were observed within the project footprint.

Environmental Consequences

As this project would not remove ringtail denning habitat, impacts on ringtail are not anticipated.

Avoidance, Minimization and Mitigation Measures

No avoidance and minimization measures are proposed because no impacts on ringtail have been identified that require such measures.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed for this species.

Sonoma Tree Vole

Affected Environment

While focused surveys for Sonoma tree vole were not conducted within the project ESLs or BSAs, the species could potentially occur within BSAs at PMs 8.98, 9.12, 9.53, 10.80, 11.31, 11.72, 11.92, 13.36, 13,83; 14.04-14.08, 19.05-19.11, 22.36, and 39.01-39.02. CNDDB RareFind reports the closest detection of Sonoma tree vole

approximately 600 feet east of PM 13.83 in 1993 and 0.5 mile from PM 22.36 in 1992.

Environmental Consequences

Suitable Sonoma tree vole habitat is not present where project-related vegetation removal would occur. No Douglas-fir or grand fir trees (preferred habitat) are proposed to be removed; therefore, project-related impacts to the species are not expected.

Avoidance, Minimization and Mitigation Measures

No avoidance and minimization measures are proposed because no impacts have been identified that require such measures.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed for this species.

Bats

Affected Environment

Although no focused surveys were conducted for bats, CNDDB RareFind shows an occurrence of Townsend's big-eared bat approximately 3.7 miles south of PM 8.98. Studies of bats using tree hollows in the project area confirm the presence of Townsend's big-eared bats within the southern BSAs at PMs 8.98, 9.12 and 9.53.

At all the ESLs, the roadway offers an opening in the forest for edge-foraging bats. The forested woodlands adjacent to the ESLs offer foraging and roosting habitat for bats (including Townsend's big-eared bat (*Corynorhinus townsendii*)) at PMs 8.98, 9.12, 9.53, 10.80, 11.31, 11.72, 11.92, 13.36, 13,83; 14.04-14.08, 19.05-19.11, 22.36, and 39.01-39.02. Both day and night roosting habitat could occur within crevices and cavities of trees and snags within ESLs at PMs 8.98, 9.12, 9.53, 10.80, 11.31, 11.72, 11.92, 13.36, 13.83, 14.04-14.08, 19.05-19.11, and 22.36.

Environmental Consequences

No known maternity roosts, colonial night roosts, or appropriate habitat would be removed or altered during project activities. Vegetation removal would occur outside of the maternity season to ensure no impacts would occur to any potentially

unidentified maternity roosts. Impacts to bat species are not anticipated given the seasonal timing of impacts. The project would have no impact on bat nursery sites or populations.

Avoidance, Minimization and Mitigation Measures

As bat species are unlikely to be affected by the proposed work, no species-specific avoidance or minimization measures would be implemented. Should bats be encountered on existing or new structures, implementation of the Standard Measures and BMPs outlined in Section 1.8 would minimize potential impacts.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed for this species.

Northwestern Pond Turtle

Affected Environment

No species-specific surveys were conducted for Northwestern pond turtle (NWPT). There are no known observations within the project ESLs (confirmed by USFWS). During the October 16, 2024, field visit with USFWS liaisons Matt Parker and Greg Schmidt, we determined that some habitat exists in the southernmost locations (PMs 8.98 to 11.92) and the presence of a red-eared slider (*Trachemys scripta elegans*; invasive) at PM 9.12 confirmed potential turtle habitat.

Environmental Consequences

Due to the low likelihood of presence, temporary nature of construction, and the abundance of suitable habitat in the southern project area for which turtles could relocate, no impacts to Northwestern pond turtle from this project are anticipated. The project would not have a substantial impact on NWPT populations.

Avoidance, Minimization and Mitigation Measures

If NWPT are present within the ESLs during the in-stream construction period, impacts would be avoided or minimized with incorporation of the Standard Measures and Best Management Practices identified in Section 1.8. Therefore, no project-specific avoidance and minimization measures are proposed for Northwestern pond turtle.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed for this species.

Migratory Birds

Affected Environment

No surveys were conducted for migratory birds. Surveys would be conducted for nesting birds if vegetation removal occurs during the breeding season.

Environmental Consequences

No nests would be removed or altered during project activities. Impacts to migratory birds are not anticipated given the minimal amount of vegetation to be removed, temporary nature of the project, and implementation of the Standard Measures and BMPs to avoid disturbing active nests (Section 1.8).

Avoidance, Minimization and Mitigation Measures

Project-specific avoidance and minimization measures are not proposed for migratory birds with incorporation of Standard measures and BMPs identified in Section 1.8.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed for this species.

Discussion of CEQA Environmental Checklist Question 2.4a)—Biological Resources

> ***a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, or NOAA Fisheries/NMFS?***

LESS THAN SIGNIFICANT IMPACT. Record searches and habitat assessments were conducted to determine whether special status species have the potential to be present in the project area. Federal and state lists of potential species in the vicinity are included in Appendix C. Special status plant and animal species with the

potential to occur are discussed in detail above in the Plant Species and Animal Species sections. All CESA and FESA determinations for the applicable species are noted below. The project would have no impact under CEQA on species with no potential habitat. With the Standard Measures and BMPs implemented, as well as continued consultation with agency partners, the project would not have a substantial adverse effect on the identified species. See the previous section, "Affected Environment," for details about project-related impacts to individual species.

PLANT SPECIES

Comprehensive botanical surveys of the project site were conducted in accordance with CDFW protocol and no special status plant species were observed in the initial surveys. Later in 2025, one rare plant, Wolf's evening primrose, was potentially identified and observed within the project ESL, with additional surveys planned to confirm species presence and abundance (Caltrans 2026a). Two plant species (FESA/CESA/rare) identified from the special status plant databases could potentially occur within the ESL of the project due to the presence of suitable habitat in the appropriate elevational range for each species.

Leafy Reed Grass

Leafy reed grass (*Calamagrostis foliosa*) is a state listed "Rare" plant, ranked 4.2 (CRPR) as a plant of limited distribution, and is moderately threatened.

Per CESA, Caltrans anticipates the project would have "no impact" on Leafy reed grass.

[The following species has been added since the draft environmental document was circulated.]

Wolf's Evening Primrose

Wolf's evening primrose (*Oenothera wolfii*) is a state listed "Rare" plant, with a CRPR rank of 1.B1, a plant that is rare, threatened, or endangered in California and elsewhere; and is eligible for state listing.

Per CESA, Caltrans anticipates the project would have "no impact" on Wolf's evening primrose.

Western Lily

Western lily (*Lilium occidentale*) is a federal and state listed perennial herb. Based on the botanical survey results and the lack of recorded occurrences within the ESLs, Western lily is not expected to occur within the ESLs or be impacted by the project.

Per FESA, Caltrans anticipates the project would have "no effect" on Western lily.

Per CESA, Caltrans anticipates the project would have "no impact" on Western lily.

ANIMAL SPECIES

[The following section has been edited since the draft environmental document was circulated, removing the potential for impacts to Pacific eulachon, Green sturgeon-Southern DPS, and Longfin smelt; based on the NES Addendum.]

Del Norte salamander

Del Norte salamander (*Plethodon elongatus*) is a species on the CDFW Watch List.

Caltrans has determined this project would have "no impact" on Del Norte salamander.

Foothill Yellow Legged Frog - North Coast DPS

Foothill yellow legged frog (*Rana boylii*)–North Coast DPS is a state Species of Special Concern.

Caltrans anticipates the project would have "no impact" on Foothill yellow-legged frog.

Northern Red-Legged Frog

Northern red-legged frog (*Rana aurora*) is a state Species of Special Concern.

Caltrans anticipates the project would have "no impact" on Northern red-legged frog.

Pacific Tailed Frog

Pacific tailed frog (*Ascaphus truei*) is a state Species of Special Concern.

Caltrans anticipates the project would have "no impact" on Pacific tailed frog.

Southern Torrent Salamander

Southern torrent salamander (*Rhyacotriton variegatus*) is a state Species of Special Concern.

Caltrans anticipates the project would have "no impact" on Southern torrent salamander.

Cackling (= Aleutian Canada) Goose

Cackling goose (*Branta hutchinsii leucopareia*) is a federally delisted species and a CDFW fully protected species.

Caltrans anticipates the project would have "no impact" on Cackling goose.

Northern Harrier

Northern harrier (*Circus hudsonius*) is a state Species of Special Concern.

Caltrans anticipates the project would have "no impact" on Northern harrier.

Osprey

Osprey (*Pandion haliaetus*) is a CDFW Watch List Species.

Caltrans anticipates the project would have "no impact" on osprey.

Ruffed Grouse

Ruffed grouse (*Bonasa umbellus*) is a CDFW Watch List Species.

Caltrans anticipates the project would have "no impact" on ruffed grouse.

White-Tailed Kite

White-tailed kite (*Elanus leucurus*) is a CDFW Fully Protected Species.

Per CESA, Caltrans anticipates the project would have "no take/no impact" on white-tailed kite.

Coastal Cutthroat Trout

Coastal cutthroat trout (*Oncorhynchus clarkii clarkii*) is a state Species of Special Concern.

Caltrans anticipates the project would have "no impact" on Coastal cutthroat trout.

Pacific Lamprey

Pacific lamprey (*Entosphenus tridentatus*) is a state Species of Special Concern.

Caltrans anticipates the project would have "no impact" on Pacific lamprey.

Steelhead - Klamath Mountains Province DPS

Steelhead (*Oncorhynchus mykiss irideus*)–Klamath Mountains Province DPS is a state Species of Special Concern.

Caltrans anticipates the project would have "no impact" on steelhead–Klamath Mountains Province DPS.

Western Brook Lamprey

Western brook lamprey (*Lampetra richardsoni*) is a state Species of Special Concern.

Caltrans anticipates the project would have "no impact" on Western brook lamprey.

Fisher - West Coast DPS

Fisher (*Pekania pennanti*)–West Coast DPS is a state Species of Special Concern.

Caltrans anticipates the project would have "no impact" on fisher–West Coast DPS.

Ringtail

Ringtail (*Bassariscus astutus*) is a CDFW Fully Protected species.

Per CESA, Caltrans anticipates the project would have "no take/no impact" on ringtail.

Sonoma Tree Vole

Sonoma tree vole (*Arborimus pomo*) is a state Species of Special Concern.

Caltrans anticipates the project would have "no impact" on Sonoma tree vole.

Townsend's Big-Eared Bat

Townsend's big-eared bat (*Corynorhinus townsendii*) is a state Species of Special Concern.

Caltrans anticipates the project would have "no impact" on Townsend's big-eared bat.

THREATENED AND ENDANGERED SPECIES

Bald Eagle

The bald eagle (*Haliaeetus leucocephalus*) is a federally delisted, state endangered, CDFW Fully Protected species.

Per CESA, Caltrans anticipates the project would have "no take/no impact" on bald eagles.

California Condor

California condor (*Gymnogyps californianus*) is a federal nonessential population, state endangered, and CDFW Fully Protected species.

Per FESA, Caltrans anticipates the project would have "no effect" on the experimental population of California condor.

Per CESA, Caltrans anticipates the project would have "no take/no impact" on California condor.

Marbled Murrelet

Marbled murrelet (*Brachyramphus marmoratus*) is a federally threatened and state endangered species.

Per FESA, Caltrans anticipates the project "may affect, but is not likely to adversely affect" marbled murrelet and would have "no adverse effects" to marbled murrelet critical habitat.

Per CESA, Caltrans anticipates the project would have "no take/no impact" on marbled murrelet.

Northern Spotted Owl

Northern spotted owl (*Strix occidentalis caurina*) is a federally threatened and state threatened species.

Per FESA, Caltrans anticipates the project "may affect, but is not likely to adversely affect" Northern spotted owl.

Per CESA, Caltrans anticipates the project would have "no take/no impact" on Northern spotted owl.

Chinook Salmon–Southern Oregon/Northern California Coast ESU

Chinook salmon (*Oncorhynchus tshawytscha*)–SONCC ESU is a state Species of Special Concern.

Per FESA, Caltrans anticipates the project "may adversely affect" Essential Fish Habitat for Chinook salmon–SONCC ESU.

Caltrans anticipates the project would have "no impact" on Chinook salmon–SONCC ESU.

Chinook Salmon–Upper Klamath and Trinity Rivers ESU

Chinook salmon (*Oncorhynchus tshawytscha*)–Upper Klamath and Trinity Rivers ESU is a federal candidate for listing as threatened and a state threatened species.

Per FESA, as a candidate species Caltrans does not require an effects determination for Chinook salmon–Upper Klamath and Trinity Rivers ESU.

[The following sentence has been edited since the draft environmental document was circulated.] Per CESA, Caltrans anticipates the project would have “no take/no impact” on Chinook salmon–Upper Klamath and Trinity Rivers ESU.

Coho Salmon–Southern Oregon/Northern California Coast ESU

Coho salmon (*Oncorhynchus kisutch*)–SONCC ESU is a federally threatened and state threatened species.

Per FESA, Caltrans anticipates the project "may affect, is likely to adversely affect" coho salmon–SONCC ESU and its critical habitat.

Per FESA, Caltrans anticipates the project "may adversely affect" Essential Fish Habitat for coho salmon–SONCC ESU.

Per CESA, Caltrans anticipates the project would potentially result in "take" of coho salmon–SONCC ESU.

Pacific (Humboldt) Marten–Coastal DPS

Pacific (Humboldt) marten–Coastal DPS (*Martes caurina humboldtensis*) is a federally threatened, state endangered and state Species of Special Concern.

Per FESA, Caltrans anticipates the project "may affect, but is not likely to adversely affect" Pacific (Humboldt) marten.

Per CESA, Caltrans anticipates the project would have "no take/no impact" on Pacific (Humboldt) marten.

Northwestern Pond Turtle

Northwestern pond turtle (*Actinemys marmorata*) is a federally proposed threatened, and state Species of Special Concern.

Per FESA, as a candidate species Caltrans does not require an effects determination for Northwestern pond turtle.

Caltrans anticipates the project would have "no impact" on Northwestern pond turtle.

Discussion of CEQA Environmental Checklist Question 2.4b)—Biological Resources

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

LESS THAN SIGNIFICANT IMPACT. Based on discussions provided below, the project would result in a Less Than Significant Impact on riparian habitat and sensitive natural communities identified below.

Sensitive Natural Communities

A less than significant impact to SNCs is anticipated because of the proximity of the road corridor and the forest areas along the road are already influenced by edge effects and habitat fragmentation. These forest vegetation types are typically less than 0.5 acre in extent within the ESLs. The location at PM 19.05 would require approximately 14 trees removed from Redwood (*Sequoia sempervirens*) Forest and Woodland Alliance due to site conditions that require longer roads through the forest to access the culvert. Of the 14 trees, the largest include 2 Douglas-fir between 15" and 30" DBH and 3 redwoods between 25" and 30" DBH. The affected community types are abundant in the watersheds and the region, and the area of disturbance to these communities is so small as to be inconsequential on a landscape scale.

Riparian Habitat

Removal of riparian vegetation to create access to drainages for culvert replacement would result in the temporary loss of approximately 0.233 acre of riparian vegetation over all ESLs, including an estimated maximum of 10 riparian trees. Caltrans would implement a Revegetation Plan to help offset temporary impacts to riparian vegetation. The objective of this plan would be to restore onsite riparian habitat at a minimum ratio of 1:1, subject to final permitting requirements and coordination with resource agencies to ensure no net loss of riparian function.

Following post-construction restoration, temporary losses of riparian habitat are not likely to reduce the overall quantity or quality of rearing habitat available to juvenile coho salmon and other salmonids. Improved passage conditions and restored access to habitat following completion of the project would result in an increase in

the availability of habitat to coho salmon and other salmonids. Notably, the removal of culverts and construction of a bridge at Mello Creek would result in a net gain of riparian habitat.

Invasive Species

Invasive plant species may be introduced to new areas or spread through the work sites by the tires and tracks of construction equipment. They may also recruit naturally and robustly outcompeting native species following soil disturbance. Redtop (*Agrostis stolonifera*), silvery hairgrass (*Aira caryophyllea*), white flowered onion (*Allium triquetrum*), sweet vernal grass (*Anthoxanthum odoratum*), slim oat (*Avena barbata*), common mustard (*Brassica rapa*), bull thistle (*Cirsium vulgare*), poison hemlock (*Conium maculatum*), cape ivy (*Delairea odorata*), English ivy (*Hedera helix*), bristly ox-tongue (*Helminthotheca echioides*), jubata grass (*Cortaderia jubata*), Scotch broom, (C*ytisus scoparius*), and French broom (*Genista monspessulana*) were observed within the project limits.

To reduce the spread of invasive species, Caltrans endeavors to eradicate newly introduced invasive species ranked as having high ecological impact by the California Invasive Plant Council (Cal-IPC). Caltrans' Standard Measures and Best Management Practices would be implemented to minimize the colonization of invasive species that could adversely impact natural communities (Section 1.8). Such measures include the inspection and cleaning of construction equipment to remove invasive species and/or pathogens during construction, seeding disturbed areas with native herbaceous species post construction, and applying weed-free mulch.

Given the above, the project is anticipated to have a "***Less Than Significant Impact***" in response to CEQA Environmental Checklist Question 2.4 b). No mitigation would be required.

Discussion of CEQA Environmental Checklist Question 2.4c)—Biological Resources

c) Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

LESS THAN SIGNIFICANT IMPACT. The proposed project has the potential to result in permanent and temporary impacts to Waters of the U.S. and State, including jurisdictional wetlands and riparian habitat, due to replacement of culverts, bridge construction, and associated end treatments. Additional indirect temporary impacts caused by sedimentation or modification of hydrology could affect streams, wetlands, or riparian habitat. Temporary impacts may result from construction of access roads, work areas, containment systems, clear water diversions and excavation work for culvert placement. Work associated with culvert realignment, restoration of flow lines, rock slope protection and the extension of culvert systems would result in permanent impacts.

[The following text has been edited since the draft environmental document was circulated, per the Biological Memo to File (Caltrans 2026c).] The project would result in approximately 4,098 square feet (0.094 acre) of temporary impacts and 168 square feet (0.0039 acre) of permanent impacts to wetland Waters of the U.S. and State (Table 7). Coastal wetlands would be impacted at PM 40.71 with approximately 600 square feet of temporary impacts and 168 square feet of permanent impacts.

[The following text has been edited since the draft environmental document was circulated, per the Biological Memo to File (Caltrans 2026c).] The project would result in approximately 85 square feet (0.00195 acres) of permanent impacts and 1,678 square feet (0.0385 acre) of temporary impacts to non-wetland Waters of the U.S. and State (“Other Waters”) (Table 8).

Permanent displacement of these small areas of jurisdictional waters is not anticipated to have an adverse impact on the quality or function of the adjacent riverine systems and associated habitat. It is anticipated that these temporary and permanent impacts to wetlands, other waters, and riparian habitat will be offset onsite through project improvements (e.g., upsizing, shortening, and/or daylighting

culverts, replacing a culvert with a bridge) and revegetation. The project is therefore expected to have a ***"Less Than Significant Impact"*** in response to CEQA Environmental Checklist Question 2.4c. No mitigation would be required.

Discussion of CEQA Environmental Checklist Question 2.4d)—Biological Resources

> ***d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?***

NO IMPACT. The proposed project would enhance terrestrial wildlife connectivity by increasing most culvert diameters and installing a bridge. Where feasible, culverts would be installed to the natural grade to allow for aquatic migration of amphibians, reptiles, semi-aquatic mammals, and fish.

To comply with Senate Bill 857, a single span bridge has been proposed at Mello Creek (PM 37.46). This bridge would allow for the rehabilitation of a priority fish passage location with current barrier issues. Fish passage improvement has also been proposed at Delilah Creek (PM 40.71), which would be realigned approximately 160 feet southeast (PM 40.68). A larger 12-foot-wide x 12-foot-high box culvert would be installed, and a naturalized streambed would be installed inside the culvert.

Given the project would have an overall long-term benefit to habitat connectivity and fish passage, Caltrans anticipates the project would have ***"No Impact"*** in response to CEQA Environmental Checklist Question 2.4 d). No mitigation would be required.

Discussion of CEQA Environmental Checklist Question 2.4e)—Biological Resources

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

NO IMPACT. Locations within the Coastal Zone will require a Coastal Development Permit in compliance with the County's Local Coastal Program and ESHA policies. Caltrans did not find any County policies or ordinances that protect specific biological resources such as a tree ordinance. The project was found to be

consistent with General Plan policies regarding biological resources. The project would have *"No Impact"* in response to CEQA Environmental Checklist Question 2.4 e). No mitigation would be required.

Discussion of CEQA Environmental Checklist Question 2.4f)—Biological Resources

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

NO IMPACT. A portion of the project is located within Redwood National and State Parks (RNSP), which is a UNESCO World Heritage site. RNSP preserves the largest remaining contiguous ancient coast redwood forest in the world in its original setting as well as the important habitat and breeding grounds for shorebirds, seabirds, marine mammals, and rockfish. The ocean waters off the coast of the property are additionally designated as the Redwood National Park Area of Special Biological Significance (ASBS) (UNESCO, 2025). Caltrans has consulted with State Parks and National Parks on this project and anticipates the drainage system improvements would not impact the conservation efforts conducted by RNSP for these valued habitats. The project would therefore have **"No Impact"** in response to CEQA Environmental Checklist Question 2.4 f). No mitigation would be required.

2.5 Cultural Resources

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	No	No	No	Yes
Would the project: b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	No	No	No	Yes
Would the project: c) Disturb any human remains, including those interred outside of dedicated cemeteries?	No	No	No	Yes

[The following section has been revised since the draft environmental document was circulated.]

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as Archaeological Screening Report dated May 6, 2025 (Caltrans 2025d), Historic Property Survey Report dated February 12, 2026 (Caltrans 2026b), consultation with the Native American Heritage Commission (NAHC), local Native American tribes, California State Parks, and the National Parks Service.

A Historic District in this project's Area of Potential Effects (APE) is a Traditional Cultural Landscape (TCL) that has been identified and determined eligible for listing in the National Register of Historic Places (NRHP). Although the project APE is within the boundaries of the TCL, no contributing elements or features of the district are within the project limits. As such, potential impacts to Cultural Resources are not anticipated because no cultural materials were observed during archaeological surveys and no known cultural resources are recorded within the project limits. Caltrans has determined the project would have no potential to affect historic properties.

The Archaeological Screening Report and Historic Property Survey Report document the finding of **"No Historic Properties Affected."**

Caltrans anticipates the project would have **“No Impact”** on cultural resources. No mitigation would be required.

2.6 Energy

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

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the *Air Quality and Noise Analysis for the Culvert Rehabilitation & Fish Passage Project* dated January 2, 2025 (Caltrans 2025b). The project would not increase capacity or provide congestion relief when compared to the No-Build Alternative and is therefore unlikely to increase direct energy consumption from mobile sources.

Construction would primarily consume diesel and gasoline through operation of heavy-duty construction equipment, material deliveries, and debris hauling. Energy use associated with construction is estimated to result in the total short-term consumption of 4,105 gallons from diesel-powered equipment, 3,855 gallons from gasoline-powered equipment and 1,115 kWh of electricity. This represents a small demand on local and regional fuel supplies that would be easily accommodated, and this demand would cease once construction is complete. Moreover, construction-related energy consumption would be temporary and not a permanent new source of energy demand, and demand for fuel would have no noticeable effect on peak or baseline demands for energy. Therefore, the project would not result in an inefficient, wasteful, and unnecessary consumption of energy.

The proposed project does not include maintenance activities that would result in long-term indirect energy consumption by equipment required to operate and maintain the roadway. This project is to rehabilitate existing drainage systems to a state of good condition and to improve fish passage. As such, it is unlikely to increase indirect energy consumption though increased fuel usage.

Caltrans anticipates the project would have **"No Impact"** on energy. No mitigation would be required.

2.7 Geology and Soils

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	No	No	No	Yes
ii) Strong seismic ground shaking?	No	No	No	Yes
iii) Seismic-related ground failure, including liquefaction?	No	No	No	Yes
iv) Landslides?	No	No	No	Yes
Would the project: b) Result in substantial soil erosion or the loss of topsoil?	No	No	No	Yes
Would the project: c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	No	No	No	Yes
Would the project: 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?	No	No	No	Yes

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: 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?	No	No	No	Yes
Would the project: f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	No	No	No	Yes

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the California Geological Survey (CGS) Regulatory Maps (CGS 2015). The project area is not located in an Alquist-Priolo Fault Hazard Zone and is not mapped in a landslide zone or area subject to liquefaction. The project is therefore not anticipated to cause substantial loss, injury, or death that could result from seismic activity or ground failure.

The amount of soil to be disturbed during construction is estimated to be 5.75 acres. The majority of soil disturbance would be associated with culvert rehabilitation within previously disturbed soils in the road fill prism, as well as the construction of temporary access roads. These impacts would be temporary and would be minimized by implementation of Caltrans specifications for sediment and erosion control and site-specific BMPs identified in the Stormwater Pollution Prevention Plan (SWPPP). Standard Measures and BMPs have been incorporated into the project to prevent or minimize erosion during and after construction by protecting existing vegetation, implementing an Erosion Control Plan, and stabilizing slopes and soils in accordance with a Revegetation Plan (refer to AR-2, AR-5, BR-4E, GS-1, WQ-1 and WQ-2 in Section 1.8).

The project is expected to have a long-term positive impact on soil erosion. Upsizing of culverts, the installation of RSP at outlets, installation of a bridge, reducing culvert lengths, and replacing shortened culvert sections with rock-lined ditch (daylighting) would contribute to decreased water velocities, decreased scour at outlets, and a decrease in soil erosion over the long term. The project would not involve the building of structures or foundations or the disposal of wastewater.

Potential impacts to paleontological resources are not anticipated because the project work would occur predominantly within previously disturbed materials (constructed roadway) largely as fill prisms, thus reducing the likelihood of finding intact or undisturbed specimens. Given the existing footprint of the drainage facilities, unique paleontological resources or geologic features are not anticipated to be destroyed.

Caltrans anticipates the project would have **"No Impact"** on geology and soils. No mitigation would be required.

2.8 Greenhouse Gas Emissions

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	No	No	Yes	No
Would the project: b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	No	No	Yes	No

Climate Change

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the Earth's climate system. The Intergovernmental Panel on Climate Change, established by the United Nations and World Meteorological Organization in 1988, is devoted to greenhouse gas (GHG) emissions reduction and climate change research and policy. Climate change in the past has generally occurred gradually over millennia, or more suddenly in response to cataclysmic natural disruptions. The research of the Intergovernmental Panel on Climate Change and other scientists over recent decades, however, has unequivocally attributed an accelerated rate of climatological changes over the past 150 years to GHG emissions generated from the production and use of fossil fuels.

Human activities generate GHGs consisting primarily of carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF6), and various hydrofluorocarbons (HFCs). CO2 is the most abundant GHG. While it is a naturally occurring and necessary component of Earth's atmosphere, fossil-fuel combustion is the main source of additional, human-generated CO2 that is the main driver of climate change. In the U.S. and in California, transportation is the largest source of GHG emissions, mostly CO2.

The impacts of climate change are already being observed in the form of sea level rise, drought, extended and severe fire seasons, and historic flooding from changing storm patterns. The most important strategy to address climate change is to reduce GHG emissions. Additional strategies are necessary to mitigate and adapt to these impacts. In the context of climate change, "mitigation" involves actions to reduce GHG emissions to lessen adverse impacts that are likely to occur. "Adaptation" is planning for and responding to impacts to reduce vulnerability to harm, such as by adjusting transportation design standards to withstand more intense storms, heat, and higher sea levels. This analysis will include a discussion of both in the context of this transportation project.

Regulatory Setting

This section outlines federal and state efforts to comprehensively reduce greenhouse gas emissions from transportation sources. For a full list of laws, regulations, and guidance related to climate change (GHGs and adaptation), please refer to Caltrans' Standard Environmental Reference (SER), Chapter 16, Climate Change.

FEDERAL

To date, no nationwide numeric mobile-source GHG reduction targets have been established, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level.

The National Environmental Policy Act (NEPA) (42 United States Code [USC] Part 4332) requires federal agencies to assess the environmental effects of their proposed actions prior to making a decision on the action or project. In January 2023, the White House Council on Environmental Quality (CEQ) issued updated and expanded interim National Environmental Policy Act Guidance on Consideration of

Greenhouse Gas Emissions and Climate Change (88 Fed. Reg. 1196) (CEQ NEPA GHG Guidance), in accordance with EO 14057, *Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability*, 86 FR 70935 (December 13, 2021) and EO 14008, *Tackling the Climate Crisis at Home and Abroad*. The CEQ guidance does not establish numeric thresholds of significance, but emphasizes quantifying reasonably foreseeable lifetime direct and indirect emissions whenever possible. This guidance also emphasizes resilience in project-level climate change and GHG analyses.

The Federal Highway Administration (FHWA) recognizes the threats that extreme weather, sea level rise, and other changes in environmental conditions pose to valuable transportation infrastructure and those who depend on it. FHWA therefore supports a sustainability approach that assesses vulnerability to climate risks and incorporates resilience into planning, asset management, project development and design, and operations and maintenance practices (FHWA 2022). This approach encourages planning for sustainable highways by addressing climate risks while balancing environmental, economic, and social values— “the triple bottom line of sustainability” (FHWA n.d.). Program and project elements that foster sustainability and resilience also support economic vitality and global efficiency, increase safety and mobility, enhance the environment, promote energy conservation, and improve the quality of life.

Early efforts by the federal government to improve fuel economy and energy efficiency to address climate change and its associated effects include The Energy Policy and Conservation Act of 1975 (42 USC Section 6201); and Corporate Average Fuel Economy (CAFE) Standards. The U.S. Department of Transportation’s National Highway Traffic and Safety Administration (NHTSA) sets and enforces corporate average fuel economy (CAFE) standards for on-road motor vehicles sold in the United States. The U.S. Environmental Protection Agency (U.S. EPA) calculates average fuel economy levels for manufacturers, and also sets related GHG emissions standards for vehicles under the Clean Air Act (U.S. EPA 2021). Raising CAFE standards leads automakers to create a more fuel-efficient fleet, which improves our nation’s energy security, saves consumers money at the pump, and reduces GHG emissions (U.S. DOT 2014). These standards are periodically updated and published through the federal rulemaking process.

STATE

California has been innovative and proactive in addressing GHG emissions and climate change by passing multiple Senate and Assembly bills and executive orders (EOs).

In 2005, EO S-3-05 initially set a goal to reduce California's GHG emissions to 80 percent below year 1990 levels by 2050, with interim reduction targets. Later EOs and Assembly and Senate bills refined interim targets and codified the emissions reduction goals and strategies. The California Air Resources Board (CARB) was directed to create a climate change scoping plan and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." Ongoing GHG emissions reduction was also mandated in Health and Safety Code (H&SC) Section 38551(b). In 2022, the California Climate Crisis Act was passed, establishing state policy to reduce statewide human-caused GHG emissions by 85 percent below 1990 levels, achieve net zero GHG emissions by 2045, and achieve and maintain negative emissions thereafter.

Beyond GHG reduction, the State maintains a climate adaptation strategy to address the full range of climate change stressors, and passed legislation requiring state agencies to consider protection and management of natural and working lands as an important strategy in meeting the state's GHG reduction goals.

Affected Environment

The proposed project is in a rural area, with a primarily natural-resources-based and tourism economy centered on the Redwood National and State Parks. U.S. Highway 101, a designated scenic highway also known as the "Redwood Highway," is the main transportation route to and through the area for both passenger and commercial vehicles. It is also part of the Pacific Coast Bike Route (PCBR). The majority of the drainage system locations are in areas that are largely undeveloped and/or sparsely populated. The only alternate route would require a 449-mile, 8-hour detour between Klamath and Crescent City. The Del Norte Local Transportation Commission (DNLTC) guides transportation development in the project region. Neither the Del Norte County General Plan nor the North Coast Unified Air Quality Management District (NCUAQMD) have established thresholds or guidance for transportation GHG emissions (Caltrans 2023a).

GHG INVENTORIES

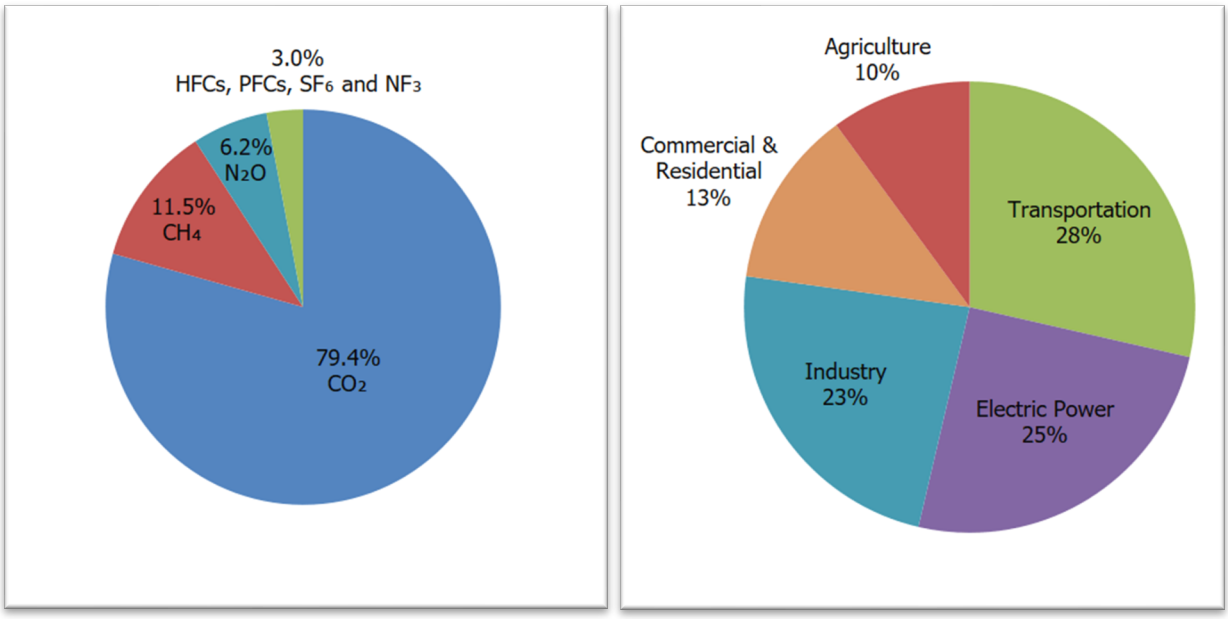
A GHG emissions inventory estimates the amount of GHGs discharged into the atmosphere by specific sources over a period of time. Tracking annual GHG emissions allows countries, states, and smaller jurisdictions to understand how emissions are changing and what actions may be needed to attain emission reduction goals. U.S. EPA is responsible for documenting GHG emissions nationwide, and the CARB does so for the state of California, as required by H&SC Section 39607.4. Cities and other local jurisdictions may also conduct local GHG inventories to inform their GHG reduction or climate action plans.

NATIONAL GHG INVENTORY

The annual GHG inventory submitted by the U.S. EPA to the United Nations provides a comprehensive accounting of all human-produced sources of GHGs in the United States. Total national GHG emissions from all sectors in 2021 were 5,586.0 million metric tons (MMT), factoring in deductions for carbon sequestration in the land sector. (Land Use, Land Use Change, and Forestry provide a carbon sink equivalent to 12% of total U.S. emissions in 2021.) While total GHG emissions in 2021 were 17% below 2005 levels, they increased by 6% over 2020 levels. Of these, 79.4% were CO_2, 11.5% were CH_4, and 6.2% were N_2O; the balance consisted of fluorinated gases. From 1990 to 2021, CO_2 emissions decreased by only 2% (U.S. EPA 2023).

The transportation sector's share of total GHG emissions increased to 28% in 2021 and remains the largest contributing sector (Figure 6). Transportation fossil fuel combustion accounted for 92% of all CO_2 emissions in 2021. This is an increase of 7% over 2020, largely due to the rebound in economic activity following the COVID-19 pandemic (U.S. EPA 2023).

Figure 6. U.S. 2021 Greenhouse Gas Emissions

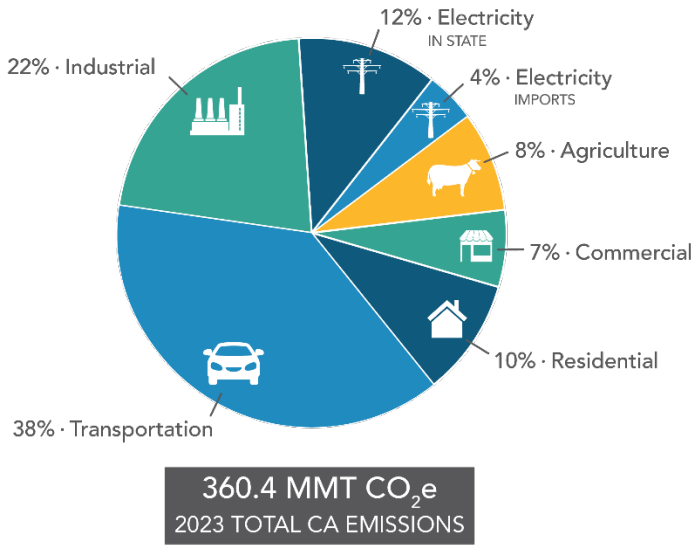


(Source: U.S. EPA 2023)

STATE GHG INVENTORY

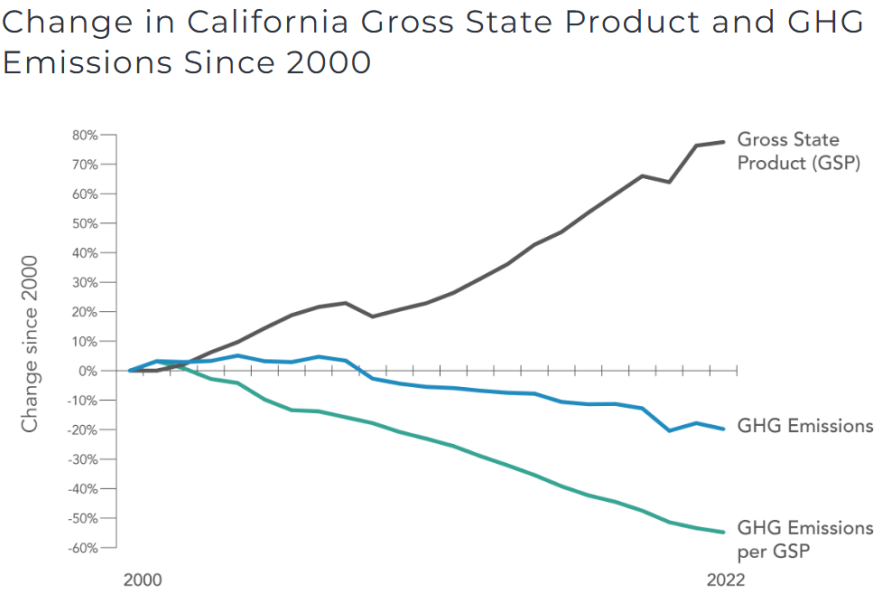
The CARB collects GHG emissions data for transportation, electricity, commercial and residential, industrial, agricultural, and waste management sectors each year. It then summarizes and highlights major annual changes and trends to demonstrate the state's progress in meeting its GHG reduction goals. Overall statewide GHG emissions declined from 2000 to 2020 despite growth in population and state economic output (Figures 7 and 8) (CARB 2022a).

Figure 7. California 2022 Greenhouse Gas Emissions by Economic Sector



(Source: CARB 2025)

Figure 8. Change in California Gross State Product (GSP) and GHG Emissions since 2000



(Source: CARB 2025)

AB 32 required the CARB to develop a Scoping Plan that describes the approach California will take to achieve the goal of reducing GHG emissions to 1990 levels by 2020, and to update it every 5 years. The AB 32 Scoping Plan, and the subsequent updates, contain the main strategies California will use to reduce GHG emissions. The CARB adopted the first scoping plan in 2008 (CARB 2008). The second updated plan, California's 2017 Climate Change Scoping Plan, adopted on December 14, 2017, reflects the 2030 target established in EO B-30-15 and SB 32. The 2022 Scoping Plan for Achieving Carbon Neutrality, adopted September 2022, assesses progress toward the statutory 2030 reduction goal and defines a path to reduce human-caused emissions to 85 percent below 1990 levels and achieve carbon neutrality no later than 2045, in accordance with AB 1279 (CARB 2022b).

REGIONAL PLANS

As required by The Sustainable Communities and Climate Protection Act of 2008, the CARB sets regional GHG reduction targets for California's 18 Metropolitan Planning Organizations (MPOs) to achieve through planning future projects that will cumulatively achieve those goals, and reporting how they will be met in the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Targets are set at a percent reduction of passenger vehicle GHG emissions per person from 2005 levels.

The project area is not within the jurisdiction of an MPO and therefore not subject to CARB GHG reduction targets. Neither the County of Del Norte nor the NCUAQMD currently have climate change or GHG reduction plans. The Climate Change and Stormwater Management Plan prepared for the Del Norte Local Transportation Commission does not include GHG reduction strategies and instead focuses on adaptation strategies for sea level rise, coastal erosion, and increased intensity of precipitation events (Schaff and Wheeler 2015).

Project Analysis

GHG emissions from transportation projects can be divided into those produced during operation and use of the State Highway System (SHS) (operational emissions) and those produced during construction. The primary GHGs produced by the transportation sector are CO_2, CH_4, N_2O, and HFCs. CO_2 emissions are a product of burning gasoline or diesel fuel in internal combustion engines, along with relatively small amounts of CH_4 and N_2O.

A small amount of HFC emissions related to refrigeration is also included in the transportation sector. (GHGs differ in how much heat each traps in the atmosphere, called global warming potential, or GWP. CO_2 is the most important GHG, so amounts of other gases are expressed relative to CO_2, using a metric called "carbon dioxide equivalent", or CO_2e. The global warming potential of CO_2 is assigned a value of 1, and the GWP of other gases is assessed as multiples of CO_2.)

The CEQA Guidelines generally address greenhouse gas emissions as a cumulative impact due to the global nature of climate change (Public Resources Code § 21083(b)(2)). As the California Supreme Court explained, "because of the global scale of climate change, any one project's contribution is unlikely to be significant by itself." (Cleveland National Forest Foundation v. San Diego Assn. of Governments (2017) 3 Cal.5th 497, 512.) In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively considerable" (CEQA Guidelines Sections 15064(h)(1) and 15130).

To make this determination, the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. Although climate change is ultimately a cumulative impact, not every individual project that emits greenhouse gases must necessarily be found to contribute to a significant cumulative impact on the environment.

Operational Emissions

Non-Capacity-Increasing Projects

The purpose of this project is to rehabilitate existing drainage systems and to improve fish passage. The project is needed to repair deteriorating or failing drainage systems and to prevent erosion and potential roadway embankment failure. Additionally, conditions resulting in barriers to fish passage exist within the project limits. These barriers require remediation per Senate Bill 857 because they prevent fish from accessing habitat that is necessary for survival and spawning during various life stages. The project would not increase capacity or change travel demands or traffic patterns when compared to the no-build alternative. Since this project would not increase capacity of the roadway, an increase in operational GHG is not anticipated (Caltrans 2025b).

Construction Emissions

Construction GHG emissions would result from material processing and transportation, on-site construction equipment, and traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases. While construction GHG emissions are only produced for a short time, they have long-term effects in the atmosphere, so cannot be considered "temporary" in the same way as criteria pollutants that subside after construction is completed.

Use of long-life pavement, improved Transportation Management Plans, and changes in materials can also help offset GHG emissions produced during construction by allowing longer intervals between maintenance and rehabilitation activities.

Construction is anticipated to begin in June 2029 and occur over approximately 320 working days. The proposed project would result in generation of short-term, construction-related GHG emissions. Construction GHG emissions consist of emissions produced as a result of material processing, emissions produced by onsite construction equipment, and emissions arising from traffic delays and detours due to construction. These emissions would be generated at different levels through the construction phase.

The CAL-CET2021 v1.0.2 was used to estimate average carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), Black Carbon (BC), and hydrofluorocarbon-134a (HFC-134a) emissions from construction activities. Table 12 below summarizes estimated GHG emissions generated by on-site equipment for the project. The total CO_2e produced during construction is estimated to be 81 metric tons.

Table 12. Estimates of Total GHG Emissions During Construction

Construction Year	CO_2	CH_4	N_2O	BC	HFC-134a	CO_2e
2029	51	0.001	0.002	0.002	0.001	50
2030	32	0.001	0.001	0.001	0.001	31
Total	**83**	**0.002**	**0.003**	**0.004**	**0.002**	**81**

* A quantity of GHG is expressed as carbon dioxide equivalent (CO_2e) that can be estimated by the sum after multiplying each amount of CO_2, CH_4, N_2O, and HFCs by its global warming potential (GWP). Each GWP of CO_2, CH_4, N_2O, and HFCs is 1, 25, 298, and 14,800, respectively.

All construction contracts include Caltrans Standard Specifications related to air quality. Sections 7-1.02A and 7-1.02C, Emissions Reduction, require contractors to comply with all laws applicable to the project and to certify they are aware of and will comply with all CARB emission reduction regulations. Section 14-9.02, Air Pollution Control, requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes. Certain common regulations, such as equipment idling restrictions, that reduce construction vehicle emissions also help reduce GHG emissions.

CEQA Conclusion

While the proposed project will result in GHG emissions during construction, it is anticipated the project would not result in any increase in operational GHG emissions. The proposed project does not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. With implementation of construction GHG-reduction measures, the project is anticipated to have a ***"Less than Significant Impact"*** on greenhouse gas emissions. No mitigation would be required.

Caltrans is firmly committed to implementing measures to help reduce GHG emissions. These measures are outlined in the following section.

Greenhouse Gas Reduction Strategies

STATEWIDE EFFORTS

In response to Assembly Bill 32, the Global Warming Solutions Act, California is implementing measures to achieve emission reductions of GHGs that cause climate change. Climate change programs in California are effectively reducing GHG emissions from all sectors of the economy. These programs include regulations, market programs, and incentives that will transform transportation, industry, fuels, and other sectors to take California into a sustainable, cleaner, low-carbon future, while maintaining a robust economy (CARB 2022b).

Major sectors of the California economy, including transportation, will need to reduce emissions to meet 2030 and 2050 GHG emissions targets. The Governor's Office of Planning and Research (OPR) identified five sustainability pillars in a 2015 report:

- Increasing the share of renewable energy in the State's energy mix to at least 50 percent by 2030
- Reducing petroleum use by up to 50 percent by 2030
- Increasing the energy efficiency of existing buildings by 50 percent by 2030
- Reducing emissions of short-lived climate pollutants; and
- Stewarding natural resources, including forests, working lands, and wetlands, to ensure that they store carbon, are resilient, and enhance other environmental benefits (California Governor's OPR 2015).

The transportation sector is integral to the people and economy of California. To achieve GHG emission reduction goals, it is vital that the state build on past successes in reducing criteria and toxic air pollutants from transportation and goods movement. GHG emission reductions will come from cleaner vehicle technologies, lower-carbon fuels, and reduction of vehicle miles traveled (VMT). Reducing today's petroleum use in cars and trucks is a key state goal for reducing greenhouse gas emissions by 2030 (California Environmental Protection Agency 2015).

In addition, SB 1386 (*in* Wolk 2016) established as state policy the protection and management of natural and working lands and requires state agencies to consider that policy in their own decision making. Trees and vegetation on forests, rangelands, farms, and wetlands remove carbon dioxide from the atmosphere

through biological processes and sequester the carbon in above- and below-ground matter.

Subsequently, Governor Gavin Newsom issued Executive Order N-82-20 to combat the crises in climate change and biodiversity. It instructs state agencies to use existing authorities and resources to identify and implement near- and long-term actions to accelerate natural removal of carbon and build climate resilience in our forests, wetlands, urban greenspaces, agricultural soils, and land conservation activities in ways that serve all communities and in particular low-income, disadvantaged, and vulnerable communities. To support this order, the California Natural Resources Agency released *Natural and Working Lands Climate Smart Strategy* (California Natural Resources Agency 2022).

CALTRANS ACTIVITIES

Caltrans continues to be involved on the Governor's Climate Action Team as the CARB works to implement EOs S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. EO B-30-15, issued in April 2015, and SB 32 in 2016 set an interim target to cut GHG emissions to 40% below 1990 levels by 2030. The following major initiatives are underway at Caltrans to help meet these targets.

Climate Action Plan For Transportation Infrastructure

The *California Action Plan for Transportation Infrastructure* (CAPTI) builds on executive orders signed by Governor Newsom in 2019 and 2020 targeted at reducing GHG emissions in transportation, which account for more than 40% of all polluting emissions, to reach the state's climate goals. Under CAPTI, where feasible and within existing funding program structures, the state will invest discretionary transportation funds in sustainable infrastructure projects that align with its climate and health goals (California State Transportation Agency 2021).

California Transportation Plan

The *California Transportation Plan* (CTP) is a statewide, long-range transportation plan to meet our future mobility needs and reduce GHG emissions. It serves as an umbrella document for all the other statewide transportation planning documents. The CTP 2050 presents a vision of a safe, resilient, and universally accessible transportation system that supports vibrant communities, advances racial and economic justice, and improves public and environmental health. The plan's climate

goal is to achieve statewide GHG emissions reduction targets and increase resilience to climate change. It demonstrates how GHG emissions from the transportation sector can be reduced through advancements in clean fuel technologies; continued shifts toward active travel, transit, and shared mobility; more efficient land use and development practices; and continued shifts to telework (Caltrans 2021).

Caltrans Strategic Plan

The *Caltrans 2024-2028 Strategic Plan* includes the goal of climate action. Climate action strategies include developing and implementing a Caltrans Climate Action Plan; a robust program of climate action education, training, and outreach; partnership and collaboration; a VMT monitoring and reduction program; and engaging with communities in developing and implementing Caltrans climate action activities (Caltrans 2024e).

Caltrans Policy Directives And Other Initiates

Caltrans Director's Policy 30 (DP-30) Climate Change (June 22, 2012) established a policy to ensure coordinated efforts to incorporate climate change into Caltrans decisions and activities. Other Director's policies promote energy efficiency, conservation, and climate change, and commit Caltrans to sustainability practices in all planning, maintenance, and operations. *Caltrans Greenhouse Gas Emissions and Mitigation Report* (Caltrans 2020) provides a comprehensive overview of Caltrans' emissions and current Caltrans procedures and activities that track and reduce GHG emissions. It identifies additional opportunities for further reducing GHG emissions from Department-controlled emission sources, in support of Caltrans and State goals.

Project-Level Greenhouse Gas Reduction Strategies

The following measures will also be implemented to reduce greenhouse gas emissions and potential climate change impacts from the project.

- All areas temporarily disturbed during construction would be revegetated with appropriate native species. Landscaping reduces surface warming and, through photosynthesis, decreases CO_2. This replanting would help offset any potential CO_2 emissions increase.

- Pedestrian and bicycle access would be maintained on US 101 during project activities.
- Where feasible, the removal of established trees and vegetation would be minimized. Environmentally sensitive areas would have Temporary High Visibility Fencing (THVF) installed before start of construction to demarcate areas where vegetation would be preserved and root systems of trees protected.
- Temporary access roads, construction easements, and staging areas that were previously vegetated would be restored to a natural contour and revegetated with regionally-appropriate native vegetation.
- A Revegetation Plan would be prepared which would include a plant palette, establishment period, watering regimen, monitoring requirements, and pest control measures. The Revegetation Plan would also address measures for wetland and riparian areas temporarily impacted by the project.

In addition to the above-listed standard measures, the project would implement the following:

- Use Accelerated Bridge Construction (ABC) methods. Some of the Mello Creek Bridge components will be pre-cast, reducing the number of working days with a goal to complete the bridge within one construction season.
- Earthwork Balance: Reduce the need for transport of earthen materials by balancing cut and fill quantities where feasible. With the exception of the bridge location and three large box culverts that will require the disposal of material off-site, cut/fill is expected to balance fairly well at the other locations.

Adaptation Strategies

Reducing GHG emissions is only one part of an approach to addressing climate change. Caltrans must plan for the effects of climate change on the state's transportation infrastructure and strengthen or protect the facilities from damage. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and their intensity, and in the frequency and intensity of wildfires. Flooding and erosion can damage or wash out roads; longer periods of intense heat can buckle pavement and railroad tracks; storm surges, combined with a rising sea level, can inundate highways. Wildfire can

directly burn facilities and indirectly cause damage when rain falls on denuded slopes that landslide after a fire. Effects will vary by location and may, in the most extreme cases, require a facility be relocated or redesigned. Furthermore, the combined effects of transportation projects and climate stressors can exacerbate the impacts of both on vulnerable communities in a project area. Accordingly, Caltrans must consider these types of climate stressors in how highways are planned, designed, built, operated, and maintained.

FEDERAL EFFORTS

Under NEPA Assignment, Caltrans is obligated to comply with all applicable federal environmental laws and FHWA NEPA regulations, policies, and guidance. Caltrans practices generally align with the *2023 CEQ Interim Guidance on Consideration of Greenhouse Gas Emissions and Climate Change*, which offers recommendations for additional ways of evaluating project effects related to GHG emissions and climate change. These recommendations are not regulatory requirements.

The *Fifth National Climate Assessment*, published in 2023, presents the most recent science and "analyzes the effects of global change on the natural environment, agriculture, energy production and use, land and water resources, transportation, human health and welfare, human social systems, and biological diversity; [It] analyzes current trends in global change, both human-induced and natural, and projects major trends for the subsequent 25 to 100 years … to support informed decision-making across the United States." Building on previous assessments, it continues to advance "an inclusive, diverse, and sustained process for assessing and communicating scientific knowledge on the impacts, risks, and vulnerabilities associated with a changing global climate" (U.S. Global Change Research Program 2023).

The U.S. Department of Transportation (USDOT) recognizes the transportation sector's major contribution of GHGs that cause climate change and has made climate action one of Caltrans' top priorities (USDOT 2023). FHWA's policy is to strive to identify the risks of climate change and extreme weather events to current and planned transportation systems. FHWA has developed guidance and tools for transportation planning that fosters resilience to climate effects and sustainability at the federal, state, and local levels (FHWA 2022).

The National Oceanic and Atmospheric Administration (NOAA) provides sea level rise projections for all U.S. coastal waters to help communities and decision makers assess their risk from sea level rise. Updated projections through 2150 were released in 2022 in a report and online tool (NOAA 2022).

STATE EFFORTS

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system. A number of state policies and tools have been developed to guide adaptation efforts.

California's Fourth Climate Change Assessment (Fourth Assessment–2018) provides information to help decision makers across sectors and at state, regional, and local levels protect and build the resilience of the state's people, infrastructure, natural systems, working lands, and waters. The Fourth Assessment reported that if no measures are taken to reduce GHG emissions by 2021 or sooner, the state is projected to experience an up to 8.8 degrees Fahrenheit increase in average annual maximum daily temperatures; a two-thirds decline in water supply from snowpack resulting in water shortages; a 77% increase in average area burned by wildfire; and large-scale erosion of up to 67% of Southern California beaches due to sea level rise. These effects will have profound impacts on infrastructure, agriculture, energy demand, natural systems, communities, and public health (State of California 2018).

Sea level rise is a particular concern for transportation infrastructure in the Coastal Zone. Major urban airports will be at risk of flooding from sea level rise combined with storm surge as early as 2040; San Francisco airport is already at risk. Miles of coastal highways vulnerable to flooding in a 100-year storm event will triple to 370 by 2100, and 3,750 miles will be exposed to temporary flooding. The Fourth Assessment's findings highlight the need for proactive action to address these current and future impacts of climate change.

To help actors throughout the state address the findings of California's Fourth Climate Change Assessment, AB 2800's multidisciplinary Climate-Safe Infrastructure Working Group published *Paying it Forward: The Path Toward Climate-Safe Infrastructure in California*. This report provides guidance on assessing risk in the face of inherent uncertainties still posed by the best available climate change science. It also examines how state agencies can use infrastructure

planning, design, and implementation processes to respond to the observed and anticipated climate change impacts (Climate-Safe Infrastructure Working Group 2018).

EO S-13-08, issued in 2008, directed state agencies to consider sea level rise scenarios for 2050 and 2100 during planning to assess project vulnerabilities, reduce risks, and increase resilience to sea level rise. It gave rise to the *2009 California Climate Adaptation Strategy*, the Safeguarding California Plan, and a series of technical reports on statewide sea level rise projections and risks, including the *State of California Sea-Level Rise Guidance Update* in 2018. The reports addressed the full range of climate change impacts and recommended adaptation strategies. The current *California Climate Adaptation Strategy* incorporates key elements of the latest sector-specific plans such as the *Natural and Working Lands Climate Smart Strategy*, *Wildfire and Forest Resilience Action Plan*, *Water Resilience Portfolio*, and the *CAPTI* (described above). Priorities in the *2023 California Climate Adaptation Strategy* include acting in partnership with California Native American tribes, strengthening protections for climate-vulnerable communities that lack capacity and resources, implementing nature-based climate solutions, using best available climate science, and partnering and collaboration to best leverage resources (California Natural Resources Agency 2023).

EO B-30-15 recognizes that effects of climate change threaten California's infrastructure and requires state agencies to factor climate change into all planning and investment decisions. Under this EO, the Office of Planning and Research published *Planning and Investing for a Resilient California: A Guidebook for State Agencies*, to encourage a uniform and systematic approach to building resilience.

SB 1 Coastal Resources: Sea Level Rise (*in* Atkins 2021) established statewide goals to "anticipate, assess, plan for, and, to the extent feasible, avoid, minimize, and mitigate the adverse environmental and economic effects of sea level rise within the Coastal Zone." As the legislation directed, the Ocean Protection Council collaborated with 17 state planning and coastal management agencies to develop the *State Agency Sea-Level Rise Action Plan for California* in February 2022. This plan promotes coordinated actions by state agencies to enhance California's resilience to the impacts of sea level rise, and was updated with its fourth iteration in 2024 (California Ocean Protection Council 2024).T

CALTRANS ADAPTATION EFFORTS

Caltrans Vulnerability Assessments

Caltrans completed climate change vulnerability assessments to identify segments of the State Highway System vulnerable to climate change effects of precipitation, temperature, wildfire, storm surge, and sea level rise.

The climate change data in the assessments were developed in coordination with climate change scientists and experts at federal, state, and regional organizations at the forefront of climate science. The findings of the vulnerability assessments guide analysis of at-risk assets and development of Adaptation Priority Reports as a method to make capital programming decisions to address identified risks.

Caltrans Sustainability Programs

The Director's Office of Equity, Sustainability and Tribal Affairs supports implementation of sustainable practices at Caltrans. The *Sustainability Roadmap* is a periodic progress report and plan for meeting the Governor's sustainability goals related to EOs B-16-12, B-18-12, and B-30-15. The Roadmap includes designing new buildings for climate change resilience and zero-net energy, and replacing fleet vehicles with zero-emission vehicles (Caltrans 2023b).

PROJECT ADAPTATION EFFORTS

Sea Level Rise

A Sea-Level Rise analysis is required for projects in the Coastal Zone that require approval of a Coastal Development Permit or amendment. This project would require such clearance under the California Coastal Act.

The project is situated on US 101 from PMs 0.0 to 46.5 in Del Norte County. US 101 runs adjacent to the coastline along several stretches of the project limits. Drainage systems at PMs 11.31, 11.72, 11.92, 12.12, 13.36, 13.83, 14.04A, 14.04B, 14.08, 22.36, 37.46 (Mello Creek), 40.71, and 41.96 (Delilah Creek) are located within the Coastal Zone.

Table 13 below provides sea level rise scenarios for Crescent City, the nearest location within the project limits that has sea level rise projections (Ocean Protection Council 2024). The project's design life is 50 years.

Fifty years following construction, the highest sea level rise projection is 3.9 feet. The NOAA Sea-Level Rise viewer indicates that the project locations would not be inundated if sea level rose by as much as 6 feet (NOAA 2025).

Table 13. Sea Level Rise Scenarios for Crescent City (in feet)

Year	Intermediate Low	Intermediate	Intermediate High	High
2030	0.3	0.3	0.4	0.4
2040	0.4	0.5	0.6	0.7
2050	0.6	0.7	0.9	1.2
2060	0.7	1.0	1.4	1.9
2070	0.9	1.3	2.1	2.8
2080	**1.0**	**1.7**	**2.9**	**3.9**
2090	1.2	2.3	3.7	5.2
2100	1.4	2.9	4.6	6.4
2110	1.6	3.6	5.5	7.7
2120	1.8	4.2	6.2	8.8
2130	1.9	4.7	6.8	9.7
2140	2.1	5.2	7.3	10.6
2150	2.3	5.7	7.9	11.5

Source: State of California Sea Level Rise Guidance 2024 Science & Policy Update produced by the California Ocean Protection Council 2024.

The proposed project would rehabilitate existing deteriorated culverts with larger diameter culverts where needed, box culverts, and a bridge. Increasing the diameter of culverts is anticipated to reduce the occurrence of flooding upstream of culverts and decrease water velocities at the outlet of culverts. This would decrease erosion of the bed, bank and channel both upstream and downstream of the culverts.

Precipitation and Flooding

The 100-year flood event is commonly used in the sizing and design of culverts and drainage systems. In most cases, it is assumed that the 100-year flood is caused by a 100-year precipitation event. In 2019, The Caltrans Climate Change Vulnerability Assessment for District 1 (Caltrans 2019) mapped potential changes in the 100-year precipitation event throughout the district.

The projections are based on the Representative Concentration Pathways (RCP) 8.5 scenario (likely, or 66% probability). In the RCP 8.5 scenario, the 100-year storm depth in the project area is projected to increase 5.0 - 9.9% in 2055 with no additional increase 30 years later in 2085 (Caltrans 2019). Although runoff and streamflow are proportional to precipitation, a given frequency precipitation event does not always produce the same frequency streamflow (flood) event. Regardless, without extensive data on each watershed, the precipitation frequency is a good proxy for streamflow for a given drainage. A Floodplain Evaluation Report Summary was prepared for the project (Caltrans 2024c).

A few culverts drain areas to the Klamath River lowlands; a few are located upstream, at and north of Lagoon Pond at the south end of False Klamath Cove; a number of culverts are within the coast range through Del Norte Coast Redwoods State Park; and there is a culvert on each side of the town of Smith River. The drainages vary from low gradient, slow moving streams, to steep flashy watersheds with smaller channels. The uplands of the drainages are almost exclusively forested, steep sloping hillsides. Although there are a handful of locations with little relief and backwatered outlets, there appears to be sufficient area for water to spread out on either side of the roadway which would limit the impact of the flooding and backwater.

The proposed culvert work is completely within Zone A (Special Flood Hazard Area) at PMs 8.98, 9.12 and 9.53. Culvert work at PMs 11.31, 11.72, and 11.92 are within Flood Zone D (Area of Undetermined Flood Hazard). Culvert work at PMs 13.36, 13.83, 14.04, 14.08, 19.05, 19.11, and 22.36 are within Flood Zone D but situated higher up on the slope and almost certainly out of a flood inundation zone. Culvert work at PM 12.12 is within Coastal Zone VE (Special Flood Hazard Area with [known] Base Flood Elevation or Depth, EL 40 feet).

Although the culvert locations mentioned above are within designated flood zones, the proposed work would not create new impacts to the floodplain or longitudinally encroach upon the base floodplain. Any encroachment of the drainage systems into the base floodplain are improvements of existing facilities at discrete locations with negligible impacts. The drainage work would reduce flooding and erosion potential in these particular drainage and tributary systems.

It is anticipated that culverts at 15 of the 19 drainage systems would be replaced with larger diameter culverts or a bridge or be daylighted. Because the lifespan of culverts can be 50 years or more, this process of upsizing culverts would help prepare the roadway for increased flows that may occur due to future precipitation increases, while also decreasing water velocities at culvert outlets, which could decrease downstream erosion. The project is also proposing RSP at approximately half of the locations to reduce erosion during extreme flows. Project work would also stabilize slopes to lower the chances of landslide on slopes at risk of more frequent or intense wildfire and precipitation. The purpose of this project is to improve drainage systems to reduce risk of localized flooding. Accordingly, the project would be resilient to future increases in precipitation and flooding.

Wildfire

Wildfires can strip the land of soil-stabilizing land cover, reducing the capacity of soils to absorb rainfall and leading to mudslides and potential damage to the highway. US 101 through most of the project limits is exposed to landslides and flooding due indirectly to wildfire. The project site is located within both a Local Responsibility Area (LRA) and a State Responsibility Area (SRA) (Figure 9). The project is located primarily within the *Moderate* Fire Hazard Severity Zone (FHSZ), with the drainage system at Post Mile 39.01/39.02 near Smith River in a *High* FHSZ (California Department of Forestry and Fire Protection [CAL FIRE] 2024).

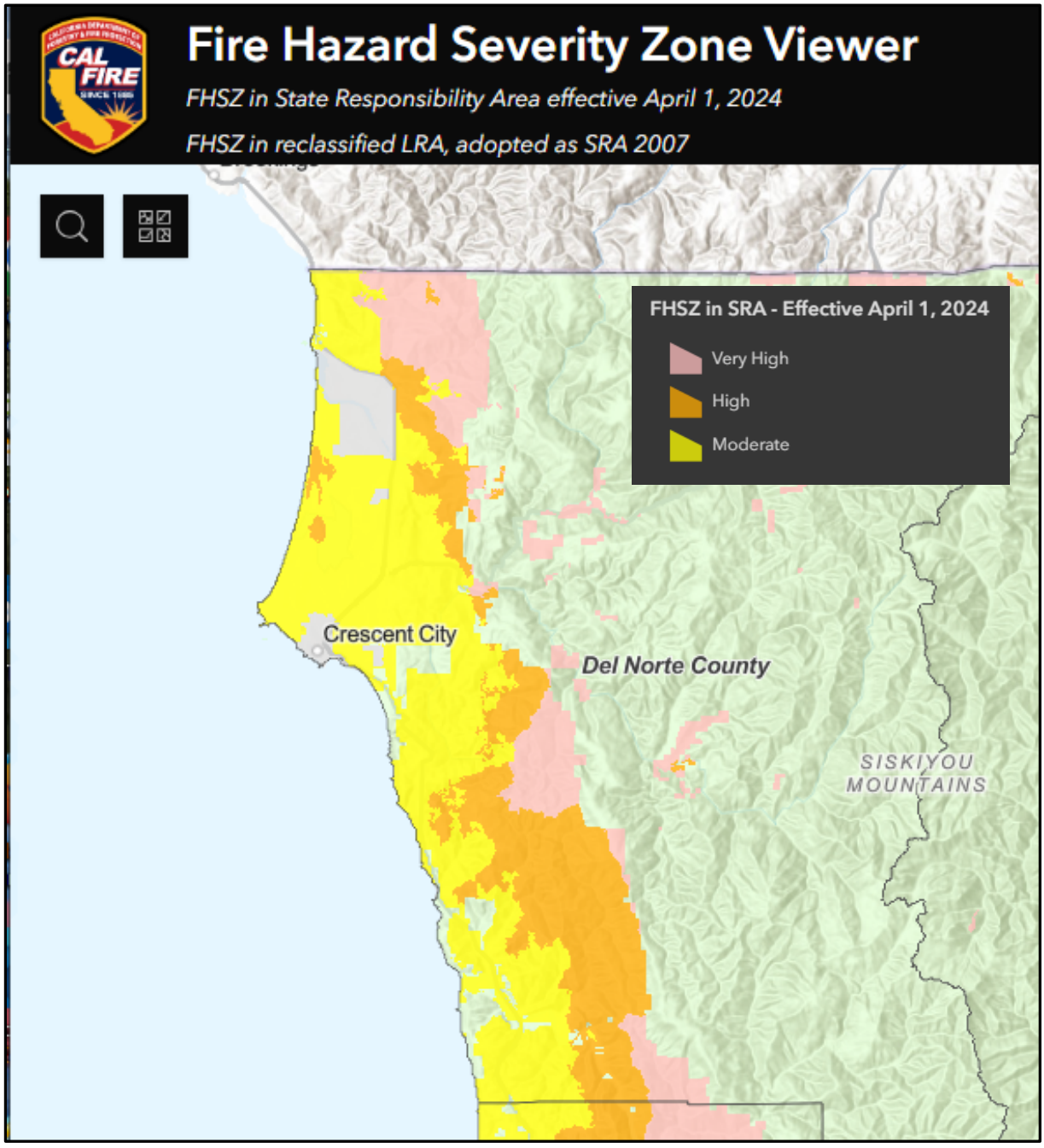


Figure 9. Fire Hazard Severity Zones in the Project Area

The *2019 Caltrans Climate Change Vulnerability Assessment for District 1* identifies US 101 within the project site as having below moderate to moderate level of concern for wildfire exposure in 2025. By 2085 the project area is projected to be in areas with a medium to high level of concern for wildfire exposure, with areas of high level of concern expanding northward by 2085 (Caltrans 2019). Projections are based on the Representative Concentration Pathways (RCP) 8.5 Emissions Scenario (Caltrans 2019). While average temperatures on the coast are currently relatively mild, changes in precipitation due to climate change are projected to result in more frequent drought periods and storm events, producing heavier rainfall and leading to an increase in fuels in already fire prone locations. Replacing culverts that have exceeded their design life and armoring exposed soils at culvert outlets with RSP is expected to reduce the risk of slope instability if a wildfire were to leave areas with steep slopes exposed. It is a policy of District 1 to avoid exposing plastic pipe to fire hazard, therefore replacement culverts would be made of corrugated steel pipe or reinforced concrete.

Temperature

Temperature affects choice of pavement materials and pavement condition, which could require more frequent maintenance. While the District 1 Climate Change Vulnerability Assessment indicates substantial maximum temperature changes are expected over the project design life (8.0–9.9°F by 2085), no adaptive changes in pavement design or maintenance practices are needed due to current pavement binder specifications being within the appropriate range (Caltrans 2019).

2.9 Hazards and Hazardous Materials

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	No	No	Yes	No
Would the project: 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?	No	No	No	Yes
Would the project: c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	No	No	No	Yes
Would the project: d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	No	No	No	Yes
Would the project: e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	No	No	No	Yes

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	No	No	No	Yes
Would the project: g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	No	No	No	Yes

Regulatory Setting

Hazardous materials, including hazardous substances and wastes, are regulated by many state and federal laws. Statutes govern the generation, treatment, storage, and disposal of hazardous materials, substances, and waste, and also the investigation and mitigation of waste releases, air and water quality, human health, and land use.

The primary laws governing hazardous materials, waste and substances include:

- California Health and Safety Code–Chapter 6.5
- Porter-Cologne Water Quality Control Act–§ 13000 et seq.
- CFR Title 22 Division 4.5 Environmental Health Standards for the Management of Hazardous Waste, Title 23 Waters, and Title 27 Environmental Protection

Worker and public health and safety are key issues when addressing hazardous materials that may affect human health and the environment. Proper management and disposal of hazardous material is vital if it is found, disturbed, or generated during project construction.

Affected Environment

The project is located on US 101 in Del Norte County, a rural two-lane highway containing pavement delineation (traffic striping) and wood guardrail along some stretches. Aerially Deposited Lead (ADL) is commonly found in soils adjacent to roadways that were heavily trafficked when leaded gasoline was in use. The location of the project on US 101 would be within areas potentially containing ADL. The project area is comprised of mostly undeveloped resource lands, State and National Parks, coastal mountains, ocean beaches, rivers, ponds, marshes, and farmland. Development of all kinds is sparse in the region.

Environmental Consequences

At all but the trenchless locations, pavement and the attached pavement delineation would be cut and removed. At some locations guardrail with treated wood posts would be removed and new guardrail installed. During culvert replacement and bridge construction, soils would be excavated and either used on-site or transported to a disposal facility.

A Preliminary Site Investigation (PSI) was conducted to evaluate potential ADL within the project limits (Geocon 2024). The investigation evaluated the unpaved shoulders and near-surface soils within the project area. To evaluate the site for hazardous concentrations of lead, soil was excavated from 0- to 2-feet depths along the shoulders of US 101 and analyzed for lead concentrations. The PSI found that:

- Soils excavated from the northbound shoulders at a depth of two feet and shallower would not be classified as California-hazardous soil based on lead content and would qualify as non-regulated material for unrestricted use. These soils are considered to be "clean soil" according to an agreement between Caltrans and the Department of Toxic Substances Control (DTSC Agreement).
- In the southbound shoulders, soils excavated from the top 1 to 2 feet would be classified as California-hazardous soil based on lead content. These soils are considered to be "ADL-contaminated soil." Soil excavated from the top 1 to 2 feet can be reused within Caltrans right of way if placed at least 5 feet above maximum historical water table elevation to avoid contact with groundwater, covered with pavement to protect from erosion, avoid contact

with surface water (such as streams and rivers), and in compliance with the DTSC Agreement. If soil excavated from the top 1 to 2 feet would not be reused, then the excavated soil would be managed and disposed of as a California hazardous waste at a Class I disposal facility.

- In the southbound shoulders, soil excavated from the surface to a depth of 0.5 feet in the southbound shoulders would not be classified as California-hazardous soil based on lead content and would qualify as non-regulated material for unrestricted use ("clean soil").
- Soil combined from both the northbound and southbound shoulders from 0 to 2 feet deep would not be classified as California-hazardous based on lead content and would qualify as non-regulated material for unrestricted use ("clean soil").

Avoidance, Minimization and Mitigation Measures

Caltrans standard measures to ensure the proper handling, stockpiling, and disposal of soils containing ADL are discussed in Section 1.8. Therefore, project-specific avoidance and minimization measures are not being proposed for hazards and hazardous materials.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed.

Discussion of CEQA Environmental Checklist Question 2.9—Hazards and Hazardous Materials

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

Less Than Significant Impact. If excavated soils are found to contain hazardous concentrations of lead, actions involved with the handling and disposal of the soil would have to comply with requirements in the DTSC Agreement to protect environmental resources, including ground water and surface waters. Caltrans Standard Measures and Best Management Practices (BMPs) (Section 1.8) and specifications would provide additional protections. For these reasons, the project is

anticipated to have a less than significant impact on the public and environment due to the routine handling and disposal of hazardous materials.

b) Would the project 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?

No Impact. Given the project scope and the incorporation of Caltrans specifications and Standard Measures and Best Management Practices (BMPs) described above, the project is not anticipated to create a significant hazard due to the release of hazardous materials.

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

No Impact. The project would not handle acutely hazardous materials or emit hazardous emissions within a quarter mile of a school.

d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. The project is not on a list of hazardous sites compiled pursuant to Government Code Section 65962.5 (Cortese List).

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

No Impact. Proposed project locations are not within an airport land use plan. The Del Norte County Regional Airport is over 6 miles from the nearest culvert replacement location. The culvert replacement and fish passage project could therefore not result in excessive noise or a safety hazard to people in an airport zone.

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

No Impact. During construction, emergency vehicles would be accommodated through any temporary lane closures. If a wildland fire affected the area, work would stop, and evacuation routes would be accessible. The built project would extend the life of the roadway, which would benefit emergency evacuation in the long term.

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

No Impact. Construction activities involved in the culvert replacement and fish passage project are not expected to increase the risk of wildland fires. The built project would reduce the potential for lane and road closures associated with the failing culverts and improve the highway's resiliency to wildfire in the long term.

2.10 Hydrology and Water Quality

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	No	No	Yes	No
Would the project: b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	No	No	No	Yes
Would the project: c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation on- or off-site;	No	No	No	Yes
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	No	No	No	Yes
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	No	No	No	Yes
(iv) impede or redirect flood flows?	No	No	No	Yes

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	No	No	Yes	No
Would the project: e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	No	No	No	Yes

Sources relied on for the preparation of this section include the *Water Quality Assessment Report* dated January 13, 2025 (Caltrans 2025f), *0-Phase Hydraulic Recommendations* dated September 17, 2024 (Caltrans 2024b), *Floodplain Evaluation Report Summary* dated September 11, 2024 (Caltrans 2024c), and *BMP Feasibility Evaluation for ASBS Statewide ASBS 8 Redwood National Park*, Site ID 1-322 CTSW-TM-23-428.11.3 dated October 2023 (Caltrans 2023c).

Regulatory Setting

The proposed project is subject to policies and regulations that are currently in place to protect surface water quality. These stormwater and non-stormwater discharge requirements necessitate Caltrans to implement operational controls for proper runoff management and adequate water quality treatment. The project is required to comply with the following federal and state water quality regulations and permits:

- Federal Clean Water Act (CWA) - 33 USC 1344
- Porter-Cologne Water Quality Control Act - Section 13000 et seq.
- California Fish and Game Code (CFGC) - Sections 1600–1607
- Water Quality Control Plan for the North Coast Region (Basin Plan) (North Coast Regional Water Quality Control Board)
- Water Quality Control Plan, Ocean Waters of California (Ocean Plan) [State Water Resources Control Board (SWRCB)]

- Caltrans Statewide NPDES Storm Water Permit (Caltrans NPDES Permit) Order 2022-0033-DWQ (SWRCB)
- General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities [Construction General Permit (CGP)] Order 2022-0057-DWQ (SWRCB)
- Municipal Separate Storm Sewer System (MS4) permit (Order 2022-0033-DWQ, NPDES No. CAS000003) (SWRCB)

The U.S. EPA enforces regulations that require the establishment of Total Maximum Daily Loads (TMDLs) for CWA Section 303(d) waterbodies to attain and maintain water quality standards. The overall goal of establishing a TMDL is to ensure that all "beneficial uses" are protected and water quality objectives are met. Water quality objectives and beneficial uses are identified for all water bodies in the Basin Plan.

Affected Environment

The project area spans three watersheds: the Klamath River, Smith River, and Winchuck River. Several culverts drain areas to the Klamath River lowlands; some are located upstream, at and north of Lagoon Pond at the south end of False Klamath Cove; a number of culverts are within the coast range through Del Norte Coast Redwoods State Park; and there is a culvert on each side of the town of Smith River. The drainages vary from low gradient, slow moving streams, to steep, flashy watersheds with smaller channels. The uplands of the drainages are almost exclusively forested, steep sloping hillsides. Most watershed areas are below 500 feet in elevation, with a few watersheds above 800 feet (PMs 10.80, 13.83, 22.35), and two above 1,000 feet (PMs 19.05 and 19.11). Although there are a handful of locations with little relief and backwatered outlets, there appears to be sufficient area for water to spread out on either side of the roadway which would limit the impact of the flooding and backwater.

Watersheds are dominated by soils in the Hydrologic Group C, characterized by moderately high runoff potential when thoroughly wet and 20-40% clay and less than 50% sand. The lowlands near Lagoon Pond are Group B/D due to a shallow water table that limits infiltration. Soil runoff classification is characterized as medium to high.

The Klamath River is listed on the Clean Water Act Section 303(d) list as impaired for aluminum, organic enrichment/low dissolved oxygen, nutrients, sediment, and temperature. The U.S. EPA has approved the Klamath River TMDLs for Temperature, Dissolved Oxygen, and Nutrients. These impairments have contributed to adverse impacts to the Klamath River, including declining anadromous salmonid populations.

The culvert located at PM 12.12 is within an Area of Special Biological Significance (ASBS), a designation given to coastal areas in California that are protected by the state to preserve their unique marine life and water quality. The outlet at PM 12.12 discharges to Wilson Creek Beach. This location is within ASBS 8 Redwood National Park, which covers 1.6 miles of coastline and has 7 monitored outfalls.

Hydrologic information associated with each drainage system location is provided in Table 14.

Table 14. Project Area Hydrologic Information

Post Mile Limits	Culvert Location	Hydrologic Unit	Hydrologic Area	Hydrologic Sub-Area	Impairment Status[2]	Beneficial Uses[3]
0–12.0	8.98 9.12 9.53 10.8 11.31 11.72 11.92	Klamath River	Lower Klamath River	Klamath Glen (105.11)	303(d): aluminum, sedimentation/ siltation TMDL: nutrients, organic enrichment/low dissolved oxygen, water temperature	AGR, AQUA, COLD, COMM, EST, FRSH, GWR, IND, MIGR, MUN, NAV, PROC, RARE, REC1, REC2, SPWN, WARM, WILD
12.0–18.4	12.12 13.36 13.83 14.04A 14.04B 14.08	Smith River	Wilson Creek	Undefined (103.50)	None	ALL

Post Mile Limits	Culvert Location	Hydrologic Unit	Hydrologic Area	Hydrologic Sub-Area	Impairment Status[2]	Beneficial Uses[3]
18.4–21.1	19.05 19.11	Smith River	Lower Smith River	Mill Creek (103.13)	None	MUN, AGR, IND, PRO*, FRSH, NAV, POW*, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, AQUA*
21.1–39.5	22.36 37.46 39.01 39.02	Smith River	Lower Smith River	Smith River Plain	None	AGR, AQUA, COLD, COMM, EST, GWR, IND, MIGR, MUN, PROC, RARE, REC1, REC2, SPWN, WARM, WILD
39.5–39.6	None	Smith River	Lower Smith River	Rowdy Creek (103.12)	None	MUN, AGR, IND, PRO*, FRSH, NAV, POW*, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, AQUA*
39.6–43.2	40.71 41.96	Smith River	Lower Smith River	Smith River Plain	None	AGR, AQUA, COLD, COMM, EST, GWR, IND, MIGR, MUN, PROC, RARE, REC1, REC2, SPWN, WARM, WILD
43.2–46.49	None	Winchuck River	Undefined	Undefined (101.00)	None	MUN, AGR, IND, PRO*, FRSH, NAV, POW*, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, AQUA*

1. Caltrans 2025f
2. Per 2020 – 2022 303(d) list and Basin Plan
3. Beneficial uses listed are “existing” unless denoted with an “*” which are “potential”, as identified in Table 2-1 “*Beneficial Uses of Surface Waters of the North Coast Region*” of the North Coast Basin Plan.

Beneficial Uses

MUN	Municipal and Domestic Supply	AGR	Agricultural Supply
IND	Industrial Service Supply	PRO	Industrial Process Supply
GWR	Groundwater Recharge	FRSH	Freshwater Replenishment
NAV	Navigation	POW	Hydropower Generation
REC-1	Water Contact Recreation	REC-2	Non-Contact Water Recreation
COMM	Commercial and Sport Fishing	WARM	Warm Freshwater Habitat
COLD	Cold Freshwater Habitat	ASBS	Areas of Special Biological Significance
SAL	Inland Saline Water Habitat	WILD	Wildlife Habitat
RARE	Rare, Threatened, or Endangered Species	MAR	Marine Habitat
MIGR	Migration of Aquatic Organisms	SPWN	Spawning, Reproduction, or Early Development
SHELL	Shellfish Harvesting	EST	Estuarine Habitat
AQUA	Aquaculture	CUL	Native American Culture
FLD	Flood Peak Attenuation/ Flood Water Storage	WET	Wetland Habitat
WQE	Water Quality Enhancement	FISH	Subsistence Fishing

Environmental Consequences

Temporary impacts to water quality could occur during the construction phase of the project. Soil disturbing work within and adjacent to drainage systems could result in the transport of sediment and other pollutants to adjacent waterways, wetlands, and/or riparian areas. Temporary, short-term increases in turbidity to receiving waters could occur during construction from activities such as vegetation removal, clearing and grubbing, constructing temporary access roads, preparing staging areas, and excavating for the culvert and bridge work. Soil erosion, especially during heavy rainfall, can increase the suspended solids, dissolved solids, and organic pollutants in stormwater runoff generated within the project limits. During construction there is also the potential for accidental release of pollutants to receiving waters such as oil, grease, wash water, solvents, concrete (elevated pH), sanitary waste, and other construction materials. Pollutants could be tracked off-site by vehicles, deposited onto roads, and eventually transported into waterways.

Groundwater may be minimally and temporarily impacted during construction. Dewatering would be incorporated as a project feature as necessary, and clean groundwater would be used as dust control, disposed in an upland area, or transported to a publicly owned treatment works facility.

Bank erosion is identified as a source contributing to sediment impairment in the 303(d)-listed Klamath River watershed. Removal of riparian vegetation is identified as a source contributing to temperature impairment. Disturbance of fine sediments within the channel may release nutrient rich fine sediment and therefore is a potential source contributing to microcystin impairment.

The culvert at PM 12.12 discharges to ASBS 8 and a coastal watershed within one mile of the Pacific Ocean and is therefore subject to the Caltrans MS4 Permit and the Ocean Plan. In ASBS 8, the receiving water location 1-323 was determined to be in exceedance of natural water quality per Table C-1 of the Caltrans MS4 Permit. Caltrans is required to ensure that discharges in this area do not cause or contribute to alterations of natural water quality. Caltrans discharge Site 1-322 (the outfall at PM 12.12) is one of the Caltrans discharge locations corresponding to site 1-323; therefore, Site 1-322 has been selected to address pollutants of concern that include copper, lead, mercury, nickel, and selenium. The BMP Feasibility Evaluation for ASBS 8 identifies potential structural BMPs at PM 12.12 to achieve compliance with the Special Protections for Beneficial Uses and the MS4 Permit (Caltrans 2023c).

Avoidance, Minimization and Mitigation Measures

The North Coast Basin Plan requires Caltrans road construction and maintenance projects within and adjacent to areas with sediment TMDLs implement effective erosion and sediment control measures identified in the Caltrans Statewide Storm Water Management Plan.

The Caltrans NPDES Permit describes specific source controls for sediment and turbidity TMDLs. Specific control measures identified in the Caltrans NPDES Permit include protecting and stabilizing hillsides, intercepting and filtering stormwater runoff, and avoiding concentrating flows in natural channels and constructed drainages.

A Stormwater Pollution Prevention Plan (SWPPP) would be implemented for the project to comply with the provisions of the Construction General Permit. Potential temporary impacts to water quality would be addressed by implementing standard BMPs recommended for particular construction activities. These water pollution control measures are routine Standard Measures and BMPs, as described in Section 1.8. Therefore, project-specific avoidance and minimization measures are not being proposed for hydrology and water quality.

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures for hydrology or water quality are proposed.

Discussion of CEQA Environmental Checklist Question 2.10—Hydrology and Water Quality

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less Than Significant Impact. Temporary impacts to water quality could occur during the construction phase of the project. Soil-disturbing work within and adjacent to drainage systems could result in the transport of sediment and other pollutants to adjacent waterways, wetlands, and/or riparian areas.

The amount of disturbed soil area (DSA) during construction is estimated to be approximately 5.75 acres, requiring a Stormwater Pollution Prevention Plan (SWPPP).

The inlet at PM 12.12 is downslope of a rock outcrop and a large pullout frequently used for temporary storage of materials (such as landslide debris) by maintenance crews. At PM 12.12, Caltrans proposes to reduce concentrations of copper, lead, mercury, nickel, and selenium to achieve compliance with the Special Protections for Beneficial Uses (Ocean Plan) and the Caltrans MS4 Permit. This would be accomplished through the construction of permanent structural BMPs to treat stormwater that exceeds allowable levels of these pollutants.

A Design Pollution Prevention Infiltration Area (DPPIA) was identified in the BMP Feasibility Study for ASBS 8 as both feasible and workable with an expected removal efficiency of 100 percent. This would be due to the capture and treatment of runoff in the DPPIA, resulting in this runoff no longer discharging to the ASBS location (Wilson Creek Beach). Permanent rock berms would be incorporated to assist with runoff capture and infiltration.

Implementation of Standard Measures and BMPs in Section 1.8, BMPs from the Caltrans Construction Site BMP Manual, the project SWPPP, and permanent BMPs, would reduce potential impacts to water quality standards to a less than significant level.

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

No Impact. Dewatering during construction may be necessary in areas where groundwater is encountered during excavation. It is estimated that dewatering may be required at 4 locations and, as a result, the project has the potential to temporarily alter baseflow. Temporary impacts due to dewatering would be minimal and limited to the construction period. The shortening and daylighting of existing culverts and the replacement of a culvert with a bridge would result in an overall net increase of surface waters infiltrating into site soils after the project is constructed. The project is therefore not anticipated to decrease groundwater supplies or adversely affect groundwater recharge.

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

(i) result in substantial erosion or siltation on- or off-site?

No Impact. Soil-disturbing work within and adjacent to drainage systems could result in the transport of sediment to adjacent waters and riparian areas. These impacts would be temporary and would be minimized by implementation of Caltrans specifications for sediment and erosion control and site-specific BMPs identified in the SWPPP. These temporary impacts would be a result of construction activities and would not be due to alterations in drainage patterns. Based on the scope of work, which would improve existing drainage systems to reduce scour, erosion, siltation, localized flooding, maintenance issues, and improve climate resiliency, potential adverse impacts to drainage patterns are not anticipated. For these reasons, Caltrans anticipates the project would not result in substantial erosion or siltation due to alterations to drainage patterns.

(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

No Impact. The project involves the replacement of drainage systems in poor condition and would result in the upsizing of many currently undersized culverts. Preliminary design includes upsizing 14 culvert systems and replacing one culvert system with a bridge. Increasing culvert diameter is anticipated to reduce the occurrence of flooding upstream of culverts and water velocities at culvert outlets, which would decrease erosion downstream of the culverts. Although a number of culvert locations are within designated flood zones, the proposed work would not create new impacts to the floodplain or longitudinally encroach upon the base floodplain. Any encroachment of the drainage systems into the base floodplain are improvements of existing facilities at discrete locations with negligible impacts. The purpose of the drainage work is to reduce flooding and erosion potential in these particular drainage and tributary systems. Based on the scope of work, which would improve existing drainage systems and reduce localized flooding potential, Caltrans anticipates the project would not increase surface runoff that would result in increased flooding.

(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

No Impact. The project involves the replacement and improvement of existing drainage facilities and would not alter drainage patterns in a way that would increase runoff volumes or create new sources of runoff. The project would maintain and increase the runoff capacity of existing stormwater drainage systems by enlarging undersized culverts and replacing one culvert system with a bridge and would therefore have no impact.

(iv) impede or redirect flood flows?

No Impact. Existing culverts would be replaced on existing or adjacent alignments without redirecting flood flows. Existing impediments from undersized, poor condition, and failing culverts would be eliminated once the culverts are replaced and the capacity to pass flood flows would be increased. For these reasons the project would have no adverse impact on flood flows.

d) In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

Less Than Significant Impact. Many of the culverts within the project limits are located within flood hazard and tsunami zones, increasing the potential for accidental release of pollutants into flood waters, particularly in the case of an earthquake-triggered tsunami. Both standard and project-specific measures to prevent pollutants from entering waters would be included in the SWPPP for compliance with the Construction General Permit. Some of these measures are included in the response to Question (a) above and in Section 1.8. Permit conditions issued by the RWQCB, USACE, and CDFW require potential pollutants be contained to prevent discharge to receiving waters, as well as preparation of a spill response plan. Due to the protective measures incorporated into the project, Caltrans anticipates the project would have a less than significant impact on the release of pollutants due to project inundation by flood or tsunami.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No Impact. The purpose of the project is to improve drainage facilities to protect highway facilities, reduce maintenance needs, and improve fish passage. The project would be constructed and permitted in accordance with provisions of the Clean Water Act and other water quality regulations, consistent with the Basin Plan and Ocean Plan. Implementation of structural BMPs at Post Mile 12.12, with the intent of reducing concentrations of copper, lead, mercury, nickel, and selenium by 90 percent, would comply with the exceptions to the Ocean Plan (Special Protections for Beneficial Uses). Other than minor temporary impacts at some locations from dewatering during construction, the project is expected to have no impact on groundwater. As such, the project would have no impact on a water quality control plan or groundwater management plan.

2.11 Land Use and Planning

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: a) Physically divide an established community?	No	No	No	Yes
Would the project: b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	No	No	No	Yes

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project. Potential impacts to land use and planning are not anticipated as the proposed project would not divide an established community or conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. The project would have **"No Impact"** on land use and community planning because building this drainage project would support the existing roadways and would not change the layout or composition of any community features. No mitigation would be required.

2.13 Noise

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

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the *Air Quality and Noise Analysis for the Culvert Rehabilitation & Fish Passage Project* dated January 2, 2025 (Caltrans 2025b). The project is considered a Type III project, which does not require a noise analysis. The project would improve existing drainage facilities and would not involve the construction of a new highway in a new location or substantially change the vertical or horizontal alignments. Traffic volumes, composition, and speeds would remain the same in the build and no-build condition. Long-term operational (traffic) noise impacts are not anticipated, and noise abatement is not considered.

Noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Construction-generated noise would be a

function of the noise levels generated by individual pieces of construction equipment, the type and amount of equipment operating at any given time, the timing and duration of construction activities, and the proximity of nearby sensitive receptors (noise sensitive locations such as residences, hospitals, schools, etc.). Construction noise would primarily result from the operation of heavy construction equipment and arrival and departure of heavy-duty trucks. Construction noise levels would vary on a day-to-day basis during each phase of construction depending on the specific task being completed. Construction equipment is expected to generate noise levels ranging from 70 to 90 dBA at a distance of 50 feet, and noise produced by construction equipment would be reduced over distance at a rate of about 6 dB per doubling of distance.

Noise generated during construction would be temporary and would not result in a substantial temporary or permanent increase of ambient noise levels in the vicinity of the project. The project area is generally undeveloped or rural in character. There are a few clusters of residential and urban development on or adjacent to the highway. The location with the longest construction duration would be the proposed bridge at Mello Creek, at PM 37.46, lasting up to two construction seasons. The nearest residential receptor to this location is a home located approximately 700 feet to the northeast. Noise impacts here are expected to be minimal due to the presence of dense vegetation between the location and the residence which would provide some natural noise attenuation, distance to the construction activity, and the limited duration and intermittent nature of noise generating activities during construction.

The project is not located near an airport; although if it were, the project would have no permanent noise impacts and temporary noise would be short term during construction at each site.

A lack of nearby sensitive receptors, ambient highway noise, short-duration work periods, and compliance with Caltrans standard noise specifications would prevent excessive noise levels. Potential noise impacts on humans are not anticipated. Potential noise impacts on wildlife are discussed in Section 2.4.

Given the above, the project is anticipated to have **“No Impact”** on noise and vibration. No mitigation would be required.

2.12 Mineral Resources

Question:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	No	No	No	Yes
Would the project: 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	No	No	Yes

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the California Department of Conservation, Division of Mine Reclamation–Mines Online web application (California Department of Conservation 2025c). Given there are no designated mineral resource areas of state or regional importance in the project area, and the project would not reduce the availability of a locally important mineral resource recovery site, the project is anticipated to have **"No Impact"** on mineral resources. No mitigation would be required.

2.14 Population and Housing

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project: a) Induce substantial unplanned 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)?	No	No	No	Yes
Would the project: b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	No	No	No	Yes

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project. Potential impacts to population and housing are not anticipated because the project does not involve the construction of homes, businesses, road extensions or infrastructure that could induce population growth. The project would not provide new access or open a new area to development. The project would not involve acquisition of land occupied by homes or residences and would not result in displacement of people or housing.

Given the above, the project is anticipated to have **"No Impact"** on population and housing. No mitigation would be required.

2.15 Public Services

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	No	No	No	Yes
Police protection?	No	No	No	Yes
Schools?	No	No	No	Yes
Parks?	No	No	No	Yes
Other public facilities?	No	No	No	Yes

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project. The culvert rehabilitation and fish passage project would not result in an increased demand for fire or police protection or increased demand for space in schools, parks, or other public facilities in the area. Although there would be temporary, short-term lane closures during construction, all emergency response agencies in the project area would be notified of the project

construction schedule and would have access to US 101 throughout the construction period.

Given the above, the project is anticipated to have **"No Impact"** on public services. No mitigation would be required.

2.16 Recreation

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	No	No	No	Yes
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	No	No	No	Yes

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project. Potential impacts to recreational facilities due to deterioration, expansion, or construction of new facilities are not anticipated. The project would involve the replacement of existing culverts and would not result in an increased demand for park resources that could cause deterioration of existing parks or recreational facilities. The project does not include the construction of park resources or recreational facilities or the expansion of such facilities. Temporary impacts on State Parks and National Parks land during construction is addressed in a Section 4(f) Evaluation with *de minimus* Finding in Appendix E of this document.

Given the above, the project is anticipated to have **"No Impact"** on recreation. No mitigation would be required.

2.17 Transportation

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

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the *Draft Transportation Management Plan* (TMP) prepared for this project, dated November 8, 2024 (Caltrans 2024d).

Although there would be temporary traffic delays on US 101 during construction due to lane closures, there would not be any permanent changes to transportation or traffic. The project would not increase capacity and is not expected to be traffic inducing; therefore, the project is consistent with CEQA Guidelines §15064.3, subdivision (b), and an analysis of vehicle miles traveled (VMT) is not warranted. The drainage system improvement project would not result in a change to the geometric design of the roadway such that there would be increased hazards.

The project would generate short-term construction traffic and result in temporary lane closures. Construction traffic would be scheduled and routed to reduce congestion. The estimated maximum delay would be 10 minutes during flagging or the use of a temporary signal system (at PMs 9.5, 37.5, 39.0, and 40.7) and 20 minutes during intermittent closures while culverts are replaced (all locations) and pile placement (PM 37.5). Bicyclists would be accommodated through the construction area at all times. A Contingency Plan and Emergency Response Access Plan would be required to prepare for and coordinate unanticipated delays and emergencies through the work zones. Emergency response agencies in the project area would be notified of the project construction schedule and would have access to US 101 throughout the construction period.

The TMP for the project would be tailored to minimize project-related traffic delays by the effective application of traditional traffic abatement strategies and an innovative combination of project-specific public and motorist information, demand management, incident management, system management, alternate route strategies, construction strategies, and other strategies.

Given the above, the project is anticipated to have **"No Impact"** on transportation systems. No mitigation would be required.

2.18 Tribal Cultural Resources

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

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the *Archaeological Screening Report* dated May 6, 2025 (Caltrans 2025d) and the Historic Property Survey Report dated April 28, 2025 (Caltrans 2025e). The Native American Heritage Commission (NAHC) was contacted in 2024 by a Caltrans archaeologist with a request for a consultation list of tribes, groups, and individuals who have expressed an interest in the project vicinity and for a review of the Sacred Lands File for any potential sacred sites within the project vicinity.

The NAHC responded with a positive result for sacred lands, which indicates sacred sites were identified within the project vicinity; however, none were found to be in conflict with the project. The NAHC also provided a list of Native American tribes, groups, and individuals pursuant to Section 106 consultation requirements. Notification was provided to Elk Valley Rancheria, Tolowa Dee-ni', Tolowa Nation, Yurok Tribe, and Pulikla Tribe of Yurok People (formerly Resighini Rancheria), with updates provided at Caltrans Quarterly Update events. No concerns were raised as of March 19, 2026. Caltrans will continue to consult with interested tribes and individuals throughout the life of the project. Standard measures for the discovery of cultural materials or human remains are incorporated into the project (CR-1 and CR-2 in Section 1.8).

Given the above, the project is anticipated to have "**No Impac**t" on tribal cultural resources. No mitigation would be required.

2.19 Utilities and Service Systems

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

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project. The proposed project would rehabilitate existing culverts and drainage systems to good condition, with no new or expanded drainage systems proposed other than the upsizing of currently undersized culverts and construction of a bridge to improve fish passage. Buried and overhead utilities are present within the project limits. AT&T, Pacific Power, Frontier Communication, Smith River Community Services District, and Caltrans all have utilities at or near the work locations. Most utilities are either outside the immediate vicinity of the proposed work or can be protected in place during construction.

Two locations have private water lines running through Caltrans facilities. These facilities would need to be relocated when the culverts are replaced. Caltrans would place a conduit across the highway, but it would be the responsibility of the property/utility owner to install a new water line through the conduit and reconnect their services.

The project would not result in new demand for water supplies, wastewater treatment, or stormwater drainage; does not propose new or expanded natural gas, electric power, or telecommunications systems; and would not generate excess solid waste or conflict with solid waste regulations.

Given the above, the project is anticipated to have **"No Impact"** on utilities and service systems. No mitigation would be required.

2.20 Wildfire

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near State Responsibility Areas (SRAs) or lands classified as *very high* Fire Hazard Severity Zones, would the project: a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	No	No	No	Yes
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	No	No	No	Yes
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or may result in temporary or ongoing impacts to the environment?	No	No	No	Yes
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	No	No	No	Yes

Senate Bill 1241 required the Governor's Office of Planning and Research, the California Natural Resources Agency, and the California Department of Forestry and Fire Protection (CAL FIRE) to develop amendments to the "CEQA Environmental Checklist" for the inclusion of questions related to fire hazard impacts for projects located on lands classified as *very high* Fire Hazard Severity Zones. The 2018 updates to the CEQA Guidelines expanded this to include projects "near" these *very high* Fire Hazard Severity Zones.

“No Impact” determinations in this section are based on the scope, description, and location of the proposed project. The project site is located within a State Responsibility Area (SRA), served by CAL FIRE (refer to Section 2.8–Figure 9) and within a number of regional fire protection districts. Within the SRA, the project site is primarily within the "*moderate*" fire hazard severity zone (FHSZ), with the drainage system at Post Miles 39.01/39.02 near Smith River in a "*high*" FHSZ. None of the drainage systems are located within a "*very high*" FHSZ.

The project would repair deteriorating and damaged drainage systems to maintain an essential emergency services transportation network. The proposed work would not impair an adopted emergency response plan or emergency evacuation plan, exacerbate wildfire risks, or expose people or structures to significant risks. Emergency response agencies in the project area would be notified of the project construction schedule and would have access to US 101 throughout the construction period. Emergency vehicles would be accommodated through any temporary lane closures. If a wildland fire affected the area, work would stop, and evacuation routes would be accessible. The Standard Measures and Best Management Practices listed in Section 1.8 would further minimize wildfire risk during construction.

Given the above, the project is anticipated to have **“No Impact”** to wildfire. No mitigation would be required.

2.21 Mandatory Findings of Significance

Does the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	No	No	Yes	No
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means 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.)	No	No	No	Yes
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	No	No	No	Yes

Discussion of CEQA Environmental Checklist Question 2.21—Mandatory Findings of Significance

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

Less Than Significant Impact. Impacts to environmental resources, such as Biological Resources, Greenhouse Gas Emissions, Hazards and Hazardous Materials, and Hydrology and Water Quality have been determined to be Less than Significant. There would be no impacts to the remaining environmental resources analyzed in the Initial Study. As the analysis in the Initial Study shows, the proposed project would not significantly degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, nor would it eliminate examples of California history or prehistory. Therefore, the project is anticipated to have a “Less that Significant Impact”.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means 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.)

No Impact. The project would not result in cumulative impacts. The project would not permanently increase traffic, vehicle miles traveled, or increase capacity of the transportation facility, and would not directly or indirectly induce population growth. The project would therefore have “No Impacts” that would be cumulatively considerable.

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

No Impact. As discussed earlier in this Initial Study, the project would have “No Impact” either directly or indirectly on human beings.

2.22 Cumulative Impacts

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of this proposed project. A cumulative impact assessment looks at the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor but collectively substantial impacts taking place over a period of time (CEQA § 15355).

Cumulative impacts to resources may result from residential, commercial, industrial, and highway development, as well as from agricultural development and the conversion to more intensive agricultural cultivation. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts identified for the project, such as changes in community character, traffic patterns, housing availability, and employment.

Per Section 15130 of CEQA, a Cumulative Impact Analysis (CIA) discussion is only required in "…situations where the cumulative effects are found to be significant." An EIR is required in all situations when a project might result in a "significant" direct, indirect, or cumulative impact on any resource. Given that all impacts resulting from the project would be less than significant, an EIR and CIA were not required for this project.

Chapter 3. Agency and Public Coordination

Early and continuing coordination with the general public and public agencies is an essential part of the environmental process. It helps planners determine the necessary scope of environmental documentation and the level of analysis required, and to identify potential impacts and avoidance, minimization and/or mitigation measures and related environmental requirements. Agency and tribal consultation and public participation for this project have been accomplished through a variety of formal and informal methods, including Project Development Team (PDT) meetings, interagency coordination meetings, field reviews, and virtual site visits. This chapter summarizes the results of Caltrans' efforts to identify, address, and resolve project-related issues through early and continuing coordination.

The following agencies, organizations, and individuals were consulted in the preparation of this environmental document.

Coordination with Resource Agencies

On September 3, 2024, Caltrans staff advised State Parks personnel Rosalind Litzky of proposed work on and near Section 4(f) property. State Parks personnel were advised that two TCEs are anticipated for purposes of staging and parking. However, State Parks requested additional information on the proposed scope of work adjacent to Section 4(f) property, at which time we scheduled a site visit for December 20, 2024. After a virtual site visit in December 2024 with State Parks personnel Mae McLean, it was determined that a 4(f) *de minimis* agreement would be prepared and further consultation would be conducted. A Right of Entry Permit may be required from State Parks depending on the final design of the project. Caltrans will continue to consult with State Parks personnel to determine the need for this permit during the permitting phase of the project.

On March 20, 2025, Caltrans staff advised National Parks personnel Chad Anderson of proposed work on and near Section 4(f) property with an overview of all proposed work and locations. National Parks personnel were advised that TCEs are anticipated for purposes of staging and parking. National Parks requested a site visit, and it was determined that a 4(f) *de minimis* agreement would be prepared and further consultation would be conducted. Caltrans will continue to consult with National Parks personnel to determine the need for any permits during the permitting phase of the project.

Caltrans personnel consulted with Caltrans liaisons Mario Minder of NMFS, as well as Matthew Parker and Greg Schmidt of USFWS, regarding use of the now-expired PBO and PLOC, respectively, for this project. Consultations with CDFW, NCRWQCB, the California Coastal Commission, County of Del Norte, and CAL FIRE personnel are planned, which may include site visits with resource agency and Caltrans personnel as necessary.

Coordination with Property Owners

A list of Native American contacts was compiled from the Caltrans District 1 Native American Coordination Database. The results of a Native American Heritage Commission (NAHC) Sacred Lands Search provided an updated contact list of Native American tribes and interested individuals in 2024. Additional outreach and information was provided via email and at quarterly meetings, as possible. Additional outreach occurred in February and March of 2026. Outreach and consultation efforts included the following tribes:

- Elk Valley Rancheria
- Tolowa Dee-ni'
- Tolowa Nation
- Yurok Tribe
- Pulikla Tribe of Yurok People (formerly Resighini Rancheria)

Table 15. Agency Coordination and Professional Contacts

Date	Personnel	Purpose of Coordination
September 3, 2024	Caltrans Environmental: Tim Nelson, Julie Price, Rachel Conway State Parks: Rosalind Litzky	State Parks consultation initiation for project overview and potential to use a 4(f) property.
October 16, 2024	Caltrans Environmental: Amon Armstrong, Hilary Hodson, Rachel Conway Caltrans Design Engineer: Halley Aycock-Rizzo USFWS: Matthew Parker, Gregory Schmidt	Field Review to discuss resources present at all project locations and determine level of consultation.
November 22, 2024	Caltrans Environmental: Dawn Graydon, Amon Armstrong, Hilary Hodson, Rachel Conway, Julie Price, Julie East Caltrans Design Engineer: Gabriel Adame NMFS: Mario Minder, Jeff Jahn	Initiated coordination with NMFS to review and discuss project locations and determine level of consultation.
December 3, 2024	Caltrans Environmental: Tim Nelson, Julie Price, Rachel Conway State Parks: Rosalind Litzky	Continue project review and plan site visit to all relevant project locations.
December 20, 2024	Caltrans Environmental: Tim Nelson, Julie Price, Rachel Conway Caltrans Design Engineer: Gabriel Adame State Parks: Mae McLean	State Parks virtual site visit and discussion of all project sites with potential to use a 4(f) property.
February 25, 2025	Caltrans Environmental: Dawn Graydon, Amon Armstrong, Hilary Hodson, Rachel Conway, Julie Price Caltrans Design and Hydraulics Engineers: Gabriel Adame, Brittany Wattle, Jeremy Miller Schulze, Nanette Nickerson, Brian Finck CDFW: Gregory O'Connell, Kristine Pepper	Initiated project coordination with CDFW and reviewed both priority fish passage locations.
March 20, 2025	Caltrans Environmental: Tim Nelson, Julie Price, Rachel Conway National Parks: Chad Anderson	National Parks consultation initiation for project overview and potential to use a 4(f) property.

Date	Personnel	Purpose of Coordination
April 30, 2025	Caltrans Environmental: Amon Armstrong, Rachel Conway, Hilary Hodson, Julie Price, Julie East, Dawn Graydon Caltrans Engineers: Gabriel Adame, Thorin Lynn CDFW: Gregory O'Connell, Jolyon Walkley	Project coordination with CDFW for fish and wildlife impacts and improvements are project locations.
July 22, 2025	Caltrans Environmental: Rachel Conway, Tim Nelson, Jeffery Barrett Caltrans Design Engineers: Gabriel Adame, Halley Aycock-Rizzo National Parks: Chad Anderson, Stassia Samuels	Field Review of all project locations adjacent to NPS land to discuss the Section 4(f), design options, revegetation, and any other concerns.
July 24, 2025	Caltrans Environmental: Rachel Conway, Julie Price, Amanda Haas, Brian Finck (Project Manager) Caltrans Design and Hydraulics Engineers: Gabriel Adame, Jeremy Miller-Schulze, Nanette Nickerson NCRWQCB: Jacob Shannon Smith River Alliance: Monica Scholey, Michael Love	Annual Coordination meeting with Smith River Alliance and Caltrans on the Delilah Creek restoration project.
August 18, 2025	Caltrans Environmental: Rachel Conway, Tim Nelson, Jeffery Barrett Caltrans Design Engineer: Gabriel Adame California State Parks: Rosalind Litzky, Mae McLean, Timothy Masters	Field Review of all projects locations adjacent to State Parks land to discuss the Section 4(f), design options, revegetation, and any other concerns.
September 12, 2025	Caltrans Environmental: Amon Armstrong, Rachel Conway, Hilary Hodson CDFW: Gregory O'Connell, Colin Anderson	Field review of all locations with potential for fish presence before, during, or post construction.
September 24, 2025	Caltrans Environmental: Amon Armstrong, Wendell Bedell, Rachel Conway. California State Parks: Mae McLean, Brian Hirt, Dalton Olson, Chelsea Osa	Field review of potential tree removal and disposition at Post Mile 19.05.

Date	Personnel	Purpose of Coordination
December 11, 2025	Caltrans Environmental: Rachel Conway, Julie East, Brian Finck (Project Manager), Tim Nelson, Liza Walker Caltrans Design and Right of Way Engineers: Gabriel Adame, Rene DeWees, Andre Guimaraes, Colleen Shanahan, Grete Valadao California State Parks: Rosalind Litzky, Mae McLean	Review and Discuss circulated Section 4(f) agreement.
December 22, 2025	Caltrans Environmental: Amon Armstrong, Rachel Conway, Hilary Hodson, Dawn Graydon. USFWS: Matthew Parker	Discuss work window restrictions for listed species at project locations.
January 22, 2026	Caltrans Environmental: Wendell Bedell, Rachel Conway, Julie East, Brian Finck (Project Manager), Tim Nelson, Liza Walker Caltrans Design Engineer: Gabriel Adame California State Parks: Rosalind Litzky, Mae McLean	Review and discuss Section 4(f) agreement and concurrence.
February 20, 2026	Caltrans Environmental: Rachel Conway NPS: Chad Anderson	Review and discuss Section 4(f) agreement and concurrence.
March 5, 2026	Caltrans Environmental: Amon Armstrong, Rachel Conway, Hilary Hodson USFWS: Matthew Parker	Field Review of project locations and scope of work with relation to listed species and work window restrictions.
March 18, 2026	Caltrans Environmental: Rachel Conway, Brenda Howell, Richard Mullen, Tim Nelson, Emiliano Pro, Liza Walker California State Parks: Rosalind Litzky, Mae McLean	Review and discuss Section 4(f) agreement and concurrence.

Chapter 4. List of Preparers

The following individuals performed the environmental work and contributed to the preparation of the Initial Study with Negative Declaration for this project:

California Department of Transportation–North Region

Amon Armstrong	Environmental Scientist, Biologist
Angel Aguilar	NPDES Coordinator
Denise Walker-Brown	Mitigation Specialist
Disi Shen	Air Quality Specialist
Gabriel Adame	Project Engineer
Halley Aycock-Rizzo	Transportation Engineer (Designer)
Hilary Hodson	Environmental Scientist, Biologist
Jacqueline Farrington	Environmental Planner, Archaeologist
Jeffery Barrett	Revegetation Specialist
Jeremy Miller-Schulze	Transportation Engineer (Hydraulics)
Julie East	Senior Environmental Scientist
Julie Price	Environmental Coordinator
Paul Sundberg	Engineering Geologist, Hazardous Waste & Paleontology Coordinator
Rachel Conway	Environmental Coordinator
Tatiene Guia	Landscape Associate
Thorin Lynn	Transportation Engineer (Designer)
Valerie Jones	Landscape Associate



Chapter 5. Distribution List

Federal and State Agencies

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National Marine Fisheries Service
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Richard Mello, Roads Superintendent
Del Norte County Roads Division
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Joey Borges, District 4 Supervisor
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Dean Wilson, District 5 Supervisor
Del Norte County Board of Supervisors
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LeWanda Green, THPO
Elk Valley Rancheria Tribal Office
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Crescent City, CA 95531

Jeri Thompson, Chairperson
Tolowa Dee-ni' Nation
12801 Mouth of Smith River Road
Smith River, CA 95567

Cynthia Ford, THPO
Tolowa Dee-ni' Nation
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Klamath, CA 95548

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Klamath, CA 95548

Fawn Murphy, Chairwoman
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Klamath, CA 95548

Moonchay Dowd, THPO
Pulikla Tribe of Yurok People
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Klamath, CA 95548

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Crescent City, CA 95531

Utilities

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Northern California Pacific Power
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Medford, OR 97501

Chapter 6. References

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Appendix A. Project Layouts



INDEX OF PLANS

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY

IN DEL NORTE COUNTY ON ROUTE 101 FROM
THE HUM-DN COUNTY LINE
TO THE OREGON STATE LINE

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2025

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	101	Var	1	XX

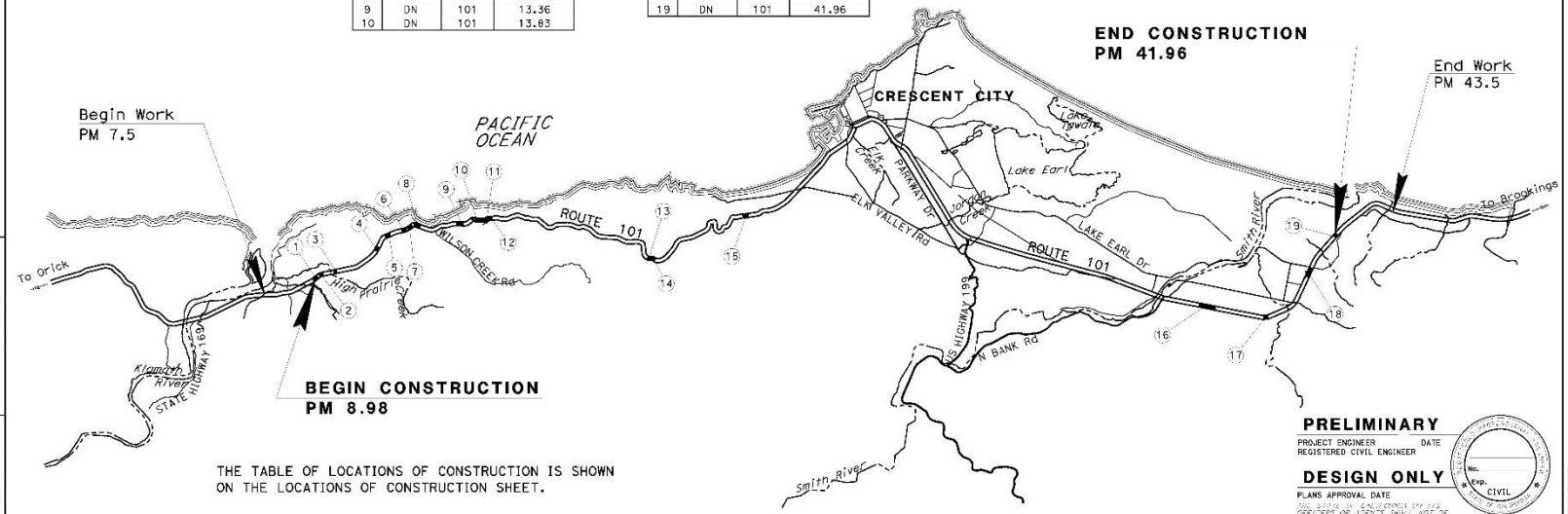
LOCATION MAP

LOCATIONS OF CONSTRUCTION

	COUNTY	ROUTE	POST MILE
1	DN	101	8.98
2	DN	101	9.12
3	DN	101	9.53
4	DN	101	10.80
5	DN	101	11.31
6	DN	101	11.72
7	DN	101	11.92
8	DN	101	12.12
9	DN	101	13.36
10	DN	101	13.83

LOCATIONS OF CONSTRUCTION

	COUNTY	ROUTE	POST MILE
11	DN	101	14.04
12	DN	101	14.08
13	DN	101	19.05
14	DN	101	19.11
15	DN	101	22.36
16	DN	101	37.46
17	DN	101	39.01/39.02
18	DN	101	40.71
19	DN	101	41.96



PRELIMINARY

PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

DESIGN ONLY

PLANS APPROVAL DATE

THE SEAL OF CALIFORNIA CIVIL ENGINEER OR ITS/HIS SEAL NOT BE INTERPRETED AS THE ACCURACY CORRECTNESS OF SURVEYED DATA ON THIS PLAN SHEET(S).

CONTRACT No.	01-0K690
PROJECT ID	0120000135

BRIAN FINK
ANDRES GUIMARAES

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

USERNAME => DGN FILE =>

UNIT 0313 PROJECT NUMBER & PHASE 0120000135

DATE PLOTTED => 12-27-24

NOTES:

1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS)ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS
2. SUPERELEVATIONS ARE SHOWN ON THE SUPERELEVATION DIAGRAMS

ABBREVIATIONS:

GPI = GEOSYNTHETIC PAVEMENT INTERLAYER
TBD = TO BE DETERMINED

Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET TOTAL SHEETS
01	DN	101	0.0/46.5	XX

PRELIMINARY

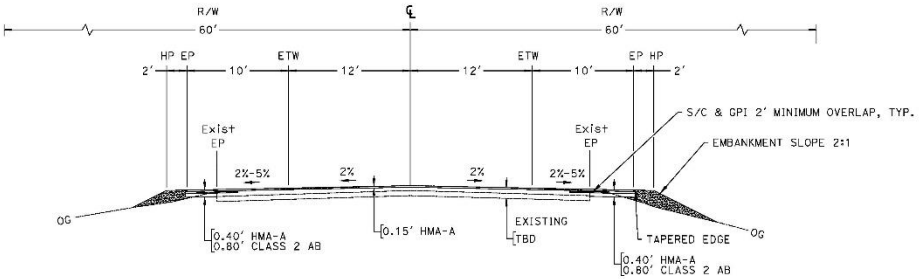
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

PRELIMINARY DESIGN FOR REVIEW ONLY

First Last Name No. XXXXX Exp. ##/##/## CIVIL

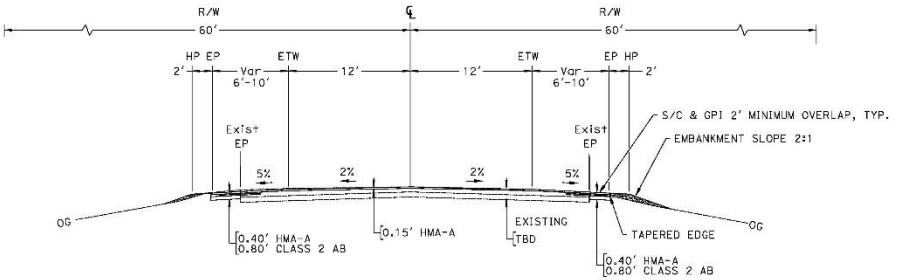
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ROUTE 101

"PM 34.76CL" 59+50 TO "PM 34.76 CL" 60+60

"PM 34.76 CL" LINE



ROUTE 101

"PM 34.76 CL" 56+94 TO "PM 34.76 CL" 59+50

PM 37.46

TYPICAL CROSS SECTIONS

NO SCALE

X-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN

FUNCTIONAL SUPERVISOR: ANDRE GUIMARAES
CALCULATED/DESIGNED BY: GABRIEL ADAME
DRAWN BY: HALLEY AYCOCK-RIZZO

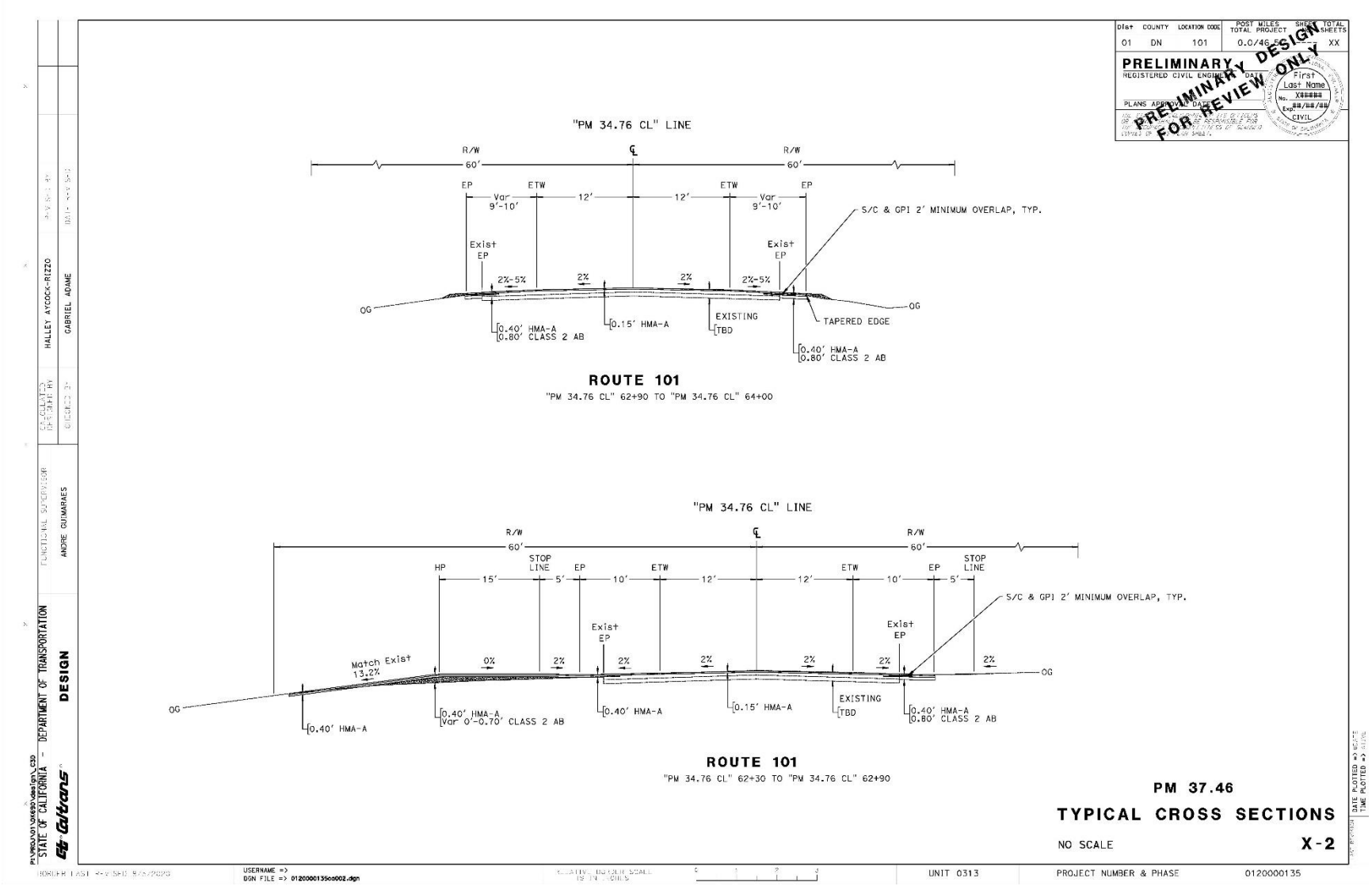
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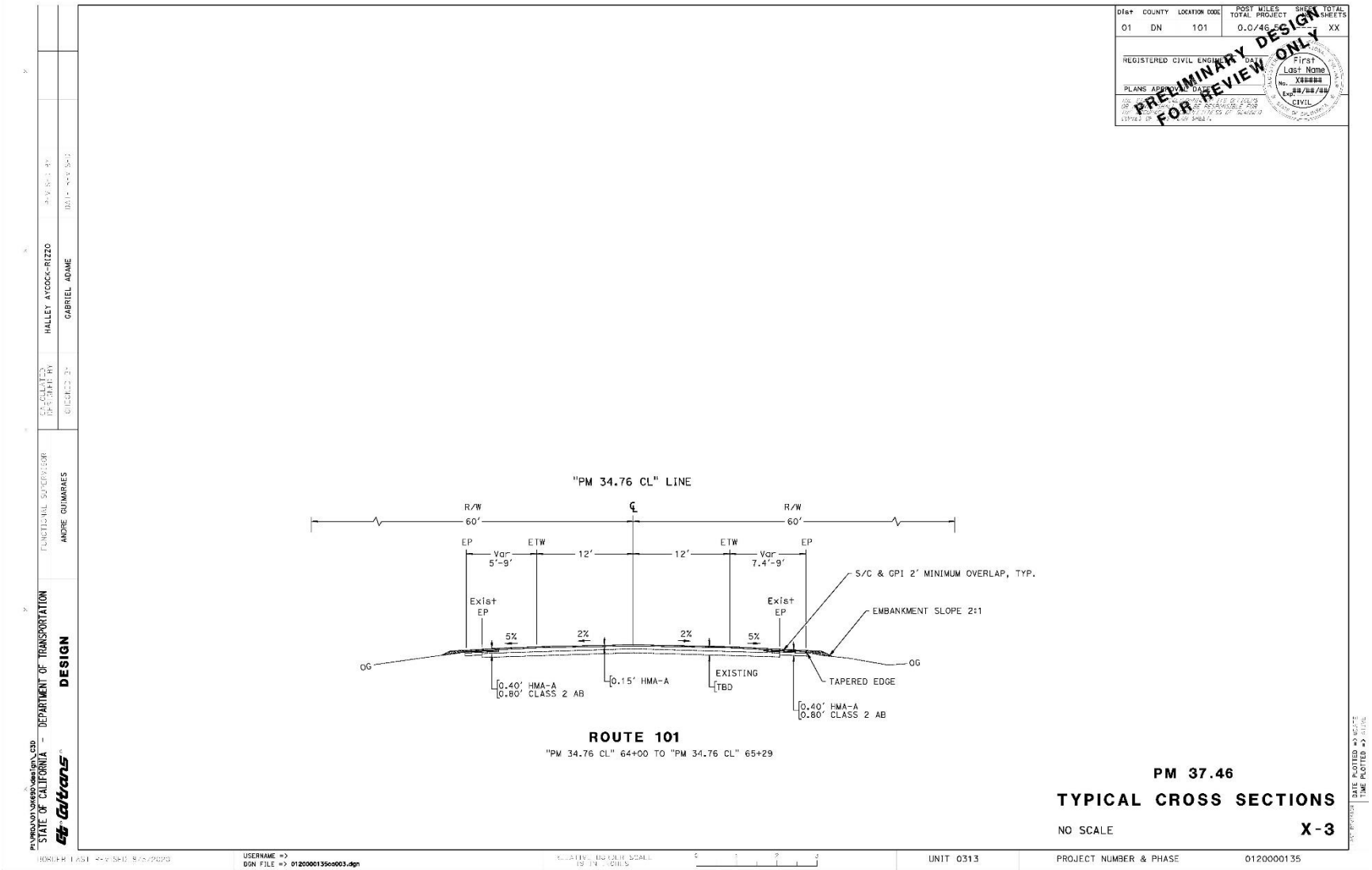
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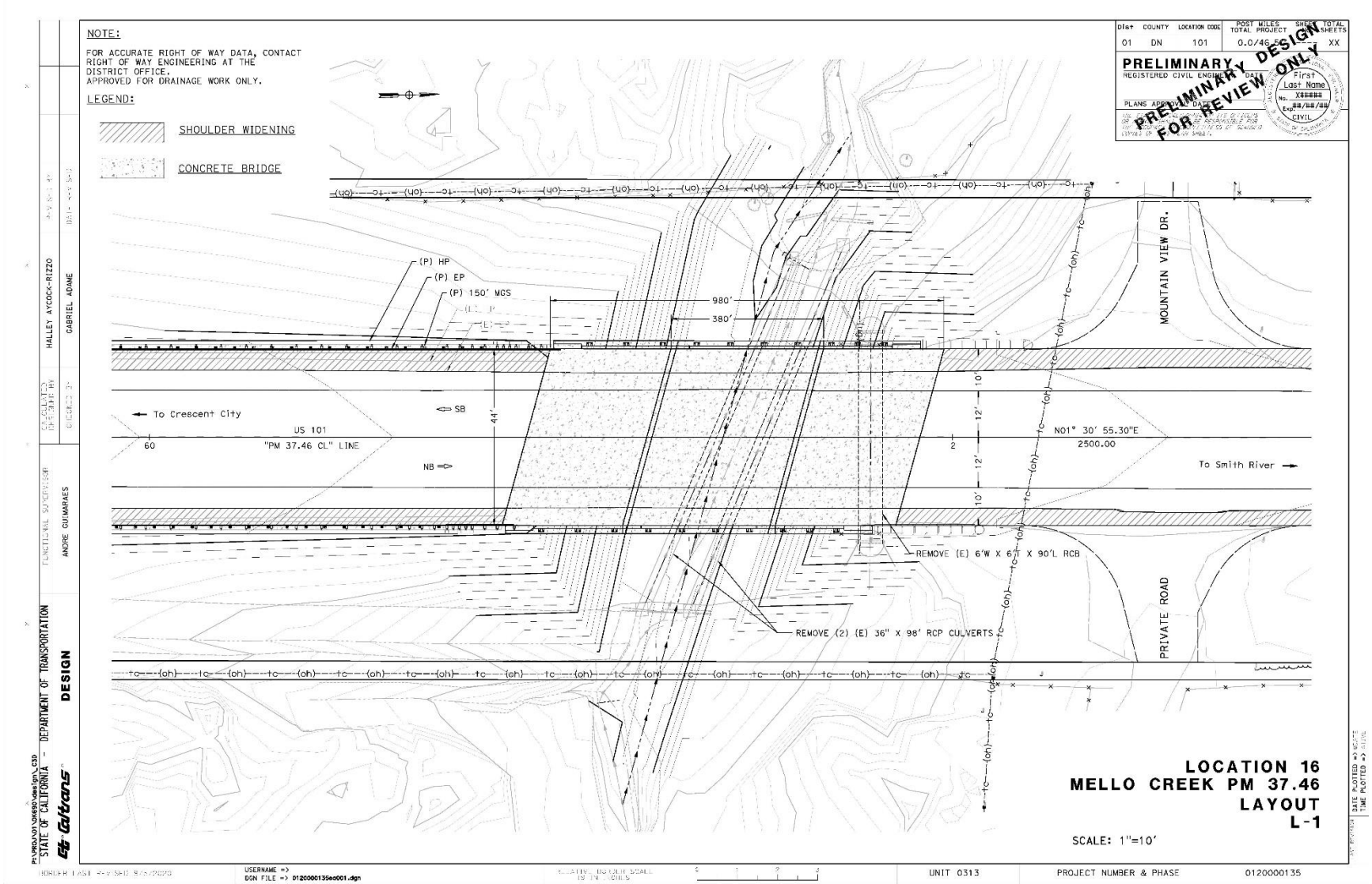
UNIT 0313

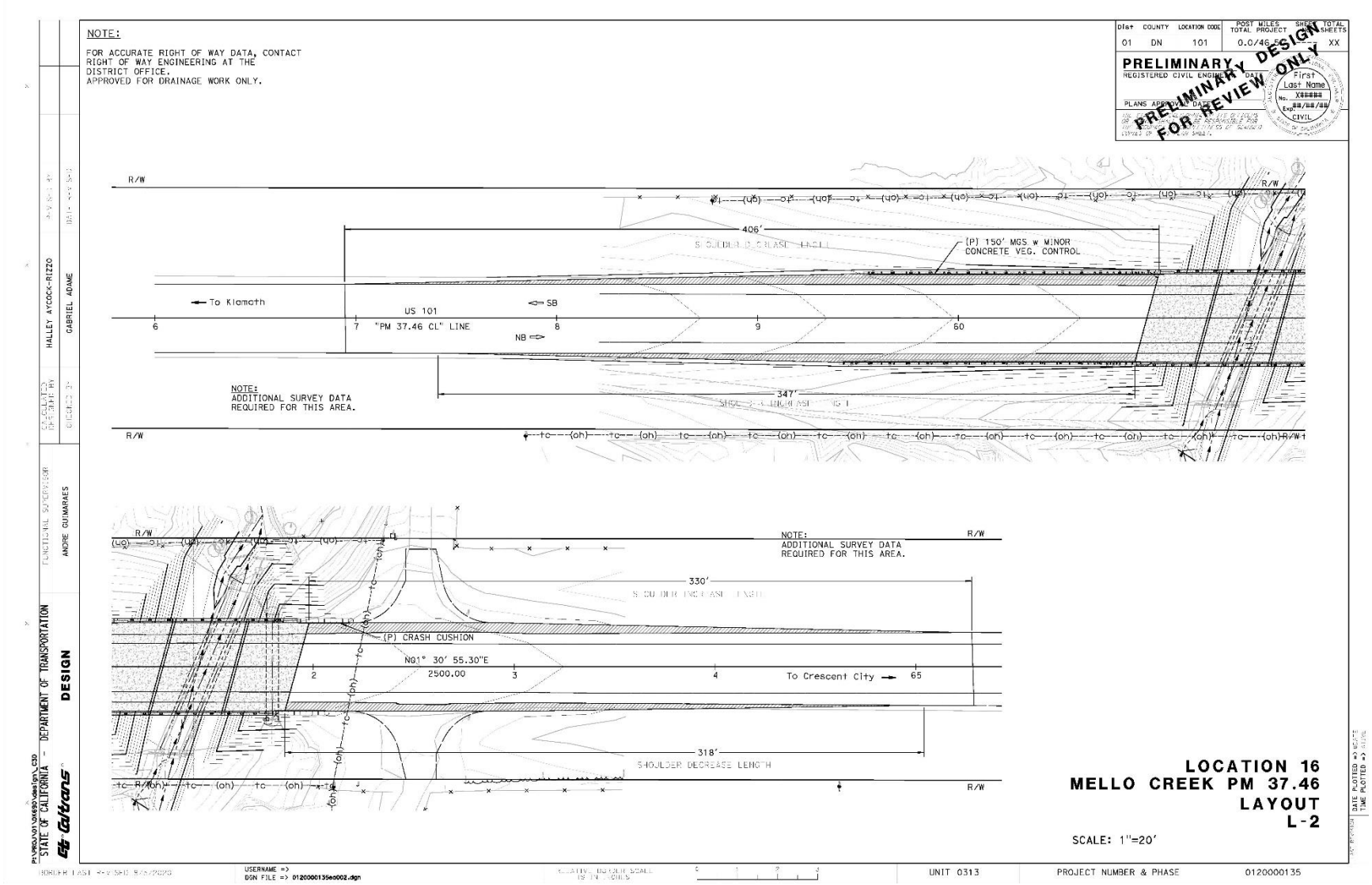
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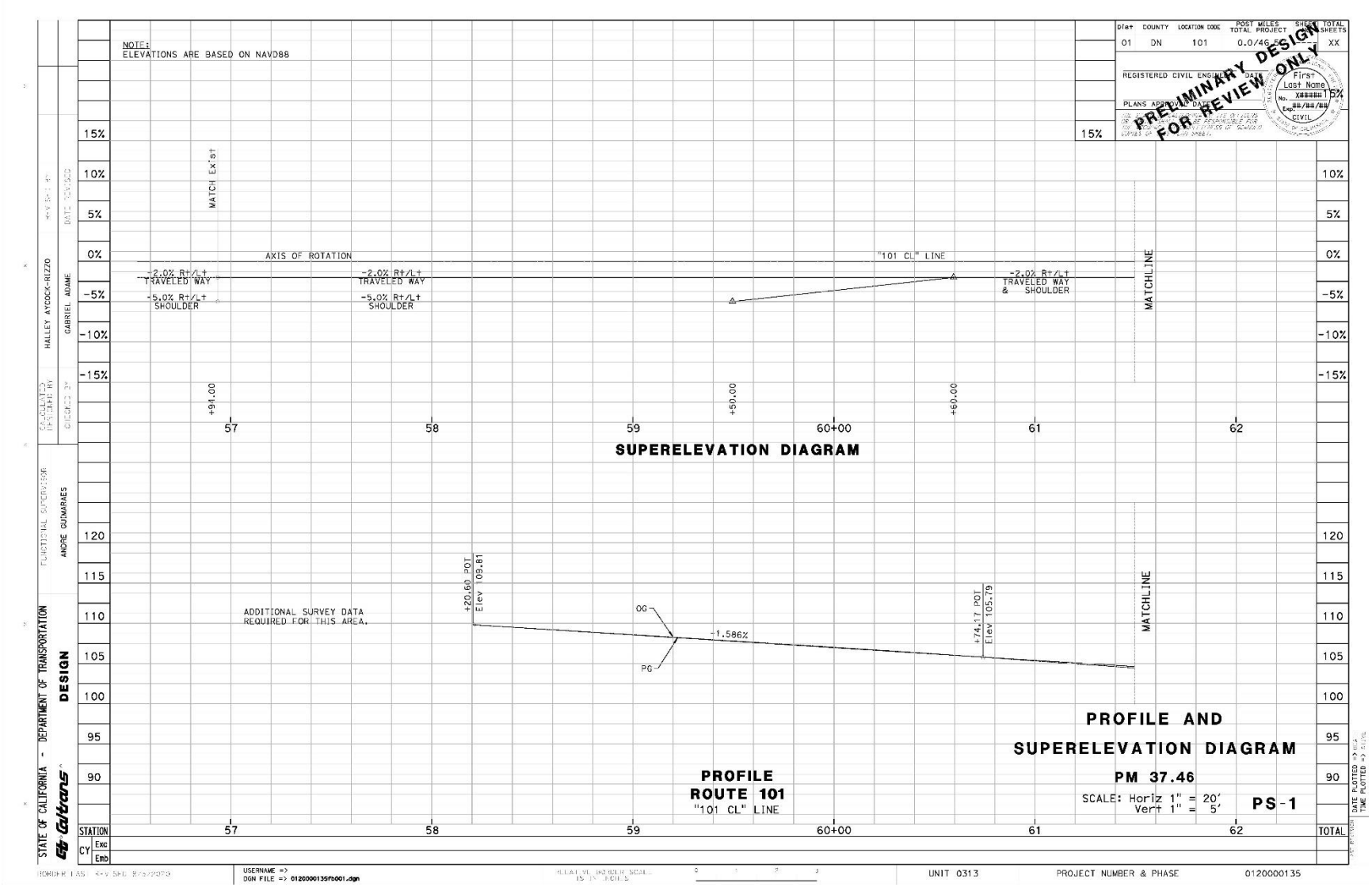
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TIME PLOTTED => 15:04

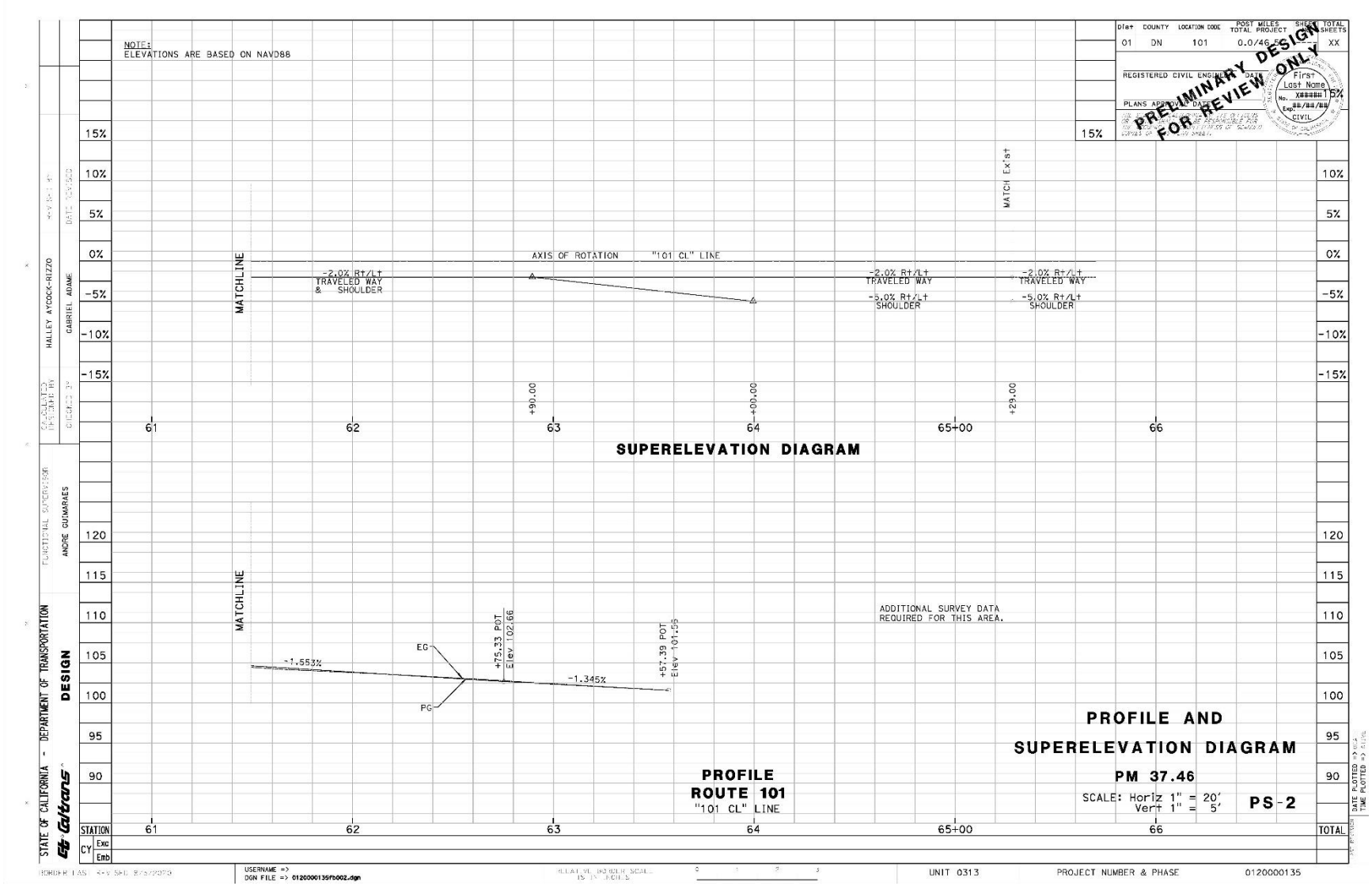

Dist COUNTY LOCATION CODE
01 DN 101
POST MILES TOTAL PROJECT
0.0/46.5
SHEET TOTAL SHEETS
XX
PRELIMINARY
REGISTERED CIVIL ENGINEER DATE
PLANS APPROVAL DATE
PRELIMINARY DESIGN FOR REVIEW ONLY
First
Last Name
No. XXXXX
Exp. ##/##/##
CIVIL
"PM 34.76 CL" LINE
R/W
60'
℄
R/W
60'
EP
Var
9'-10'
ETW
12'
12'
ETW
Var
9'-10'
EP
S/C & GPI 2' MINIMUM OVERLAP, TYP.
Exist
EP
Exist
EP
2%-5%
2%
2%
2%-5%
OG
OG
0.40' HMA-A
0.80' CLASS 2 AB
0.15' HMA-A
EXISTING
TBD
TAPERED EDGE
0.40' HMA-A
0.80' CLASS 2 AB
ROUTE 101
"PM 34.76 CL" 62+90 TO "PM 34.76 CL" 64+00
"PM 34.76 CL" LINE
R/W
60'
℄
R/W
60'
HP
15'
STOP
LINE
5'
EP
10'
ETW
12'
12'
ETW
10'
EP
5'
STOP
LINE
S/C & GPI 2' MINIMUM OVERLAP, TYP.
Exist
EP
Exist
EP
Match Exist
13.2%
0%
2%
2%
2%
2%
2%
2%
OG
OG
0.40' HMA-A
0.40' HMA-A
Var 0'-0.70' CLASS 2 AB
0.40' HMA-A
0.15' HMA-A
EXISTING
TBD
0.40' HMA-A
0.80' CLASS 2 AB
ROUTE 101
"PM 34.76 CL" 62+30 TO "PM 34.76 CL" 62+90
PM 37.46
TYPICAL CROSS SECTIONS
NO SCALE
X-2
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
FUNCTIONAL SUPERVISOR
ANDRE GUIMARAES
CALCULATED/DESIGNED BY
HALLEY AYCOCK-RIZZO
CHECKED BY
GABRIEL ADAME
USERNAME =>
DGN FILE => 0120000135ca002.dgn
UNIT 0313
PROJECT NUMBER & PHASE
0120000135
DATE PLOTTED => 03/18/2026
TIME PLOTTED => 15:04

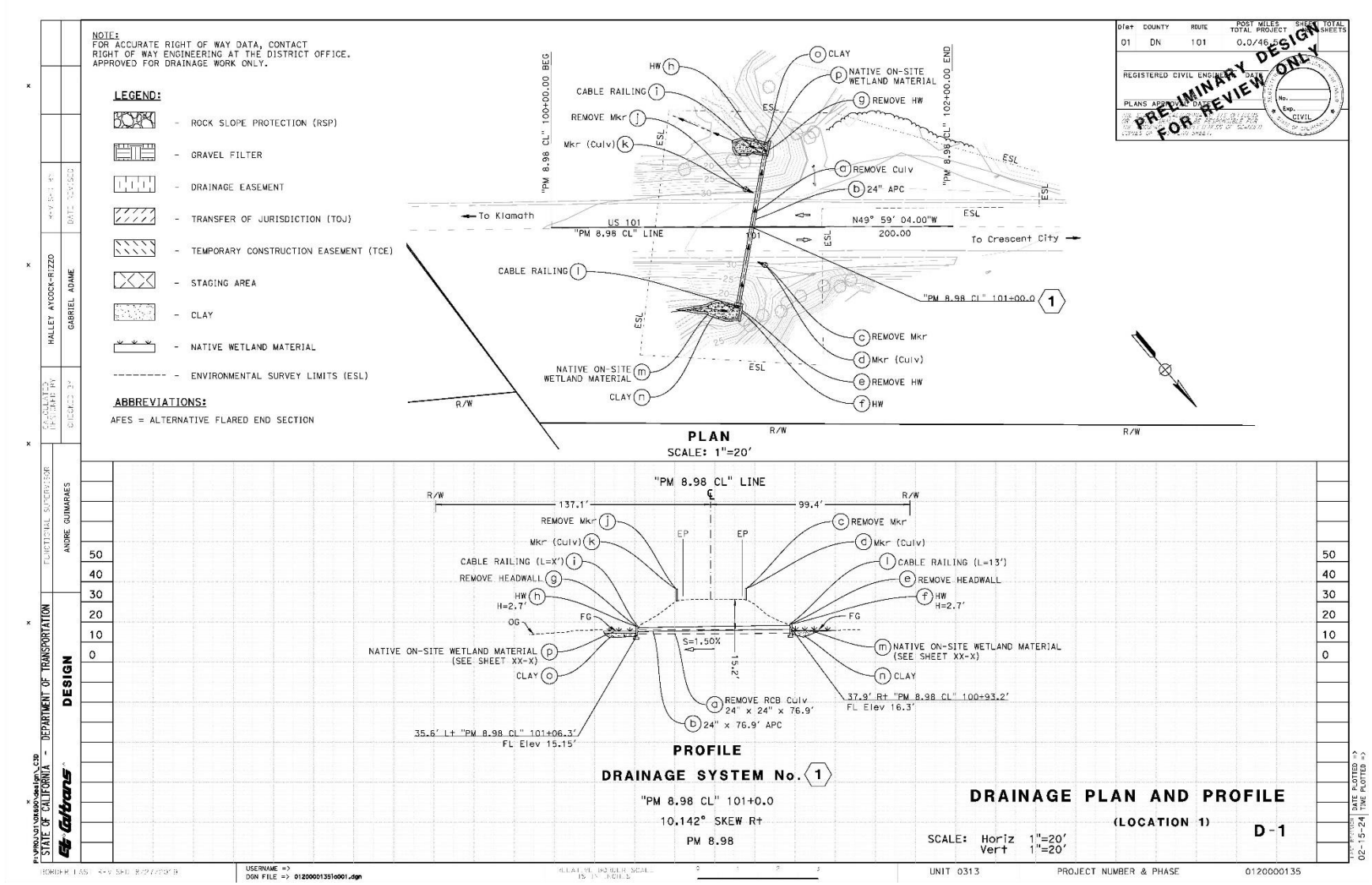

Dist COUNTY LOCATION CODE
01 DN 101
POST MILES TOTAL PROJECT
0.0/46.
SHEET TOTAL SHEETS
XX
REGISTERED CIVIL ENGINEER DATE
PLANS APPROVAL DATE
PRELIMINARY DESIGN FOR REVIEW ONLY
First
Last Name
No. XXXXX
Exp. ##/##/##
CIVIL
"PM 34.76 CL" LINE
R/W
60'
℄
R/W
60'
EP
ETW
Var
5'-9'
12'
12'
ETW
Var
7.4'-9'
EP
S/C & GPI 2' MINIMUM OVERLAP, TYP.
Exist
EP
Exist
EP
EMBANKMENT SLOPE 2:1
5%
2%
2%
5%
OG
OG
0.40' HMA-A
0.80' CLASS 2 AB
0.15' HMA-A
EXISTING
TBD
TAPERED EDGE
0.40' HMA-A
0.80' CLASS 2 AB
ROUTE 101
"PM 34.76 CL" 64+00 TO "PM 34.76 CL" 65+29
PM 37.46
TYPICAL CROSS SECTIONS
NO SCALE
X-3
DESIGN
FUNCTIONAL SUPERVISOR
ANDRE GUIMARAES
CALCULATED/DESIGNED BY
HALLEY AYCOCK-RIZZO
CHECKED BY
GABRIEL ADAME
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
USERNAME =>
DGN FILE => 0120000135ea003.dgn
UNIT 0313
PROJECT NUMBER & PHASE
0120000135

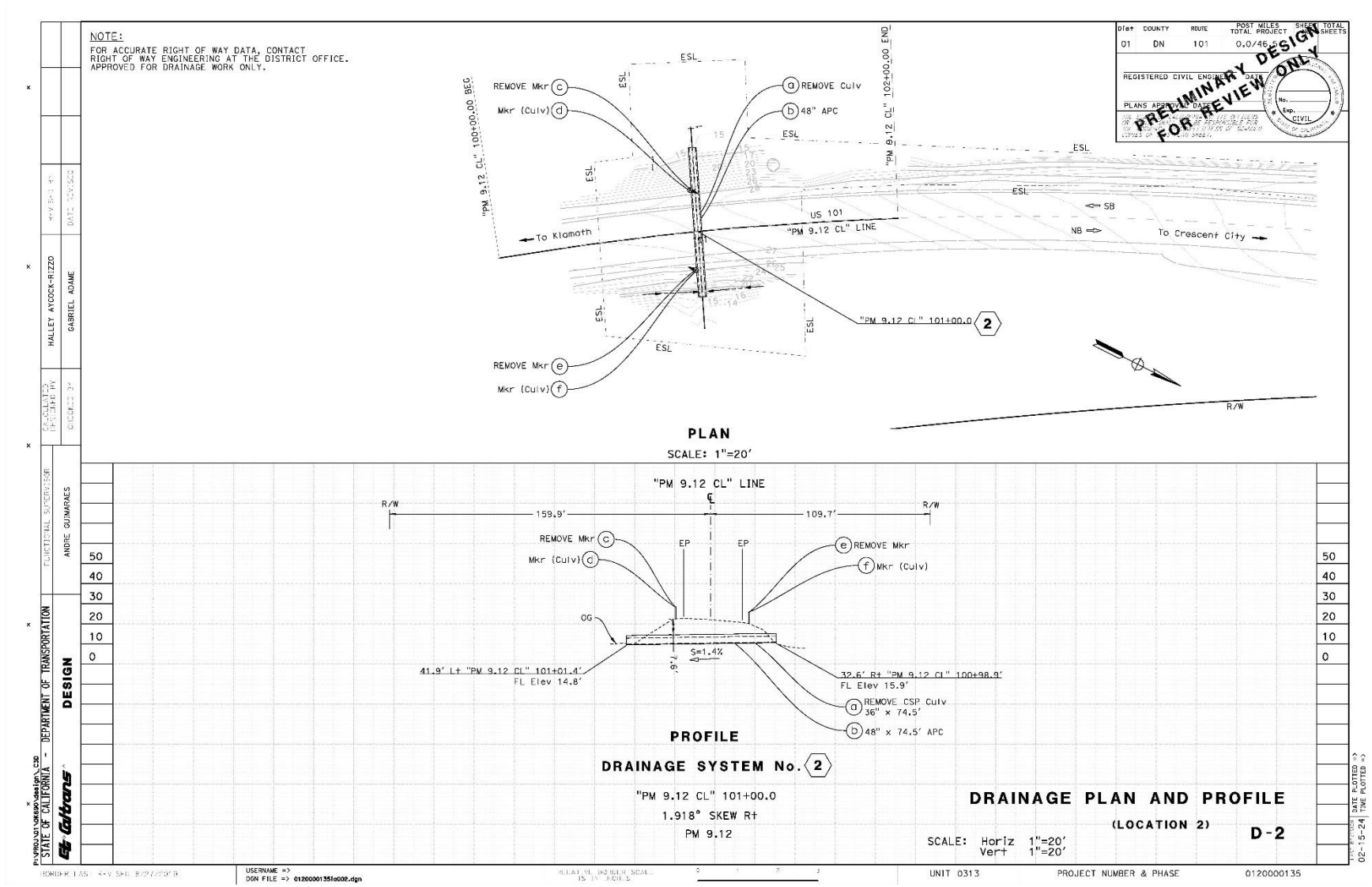

NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
APPROVED FOR DRAINAGE WORK ONLY.
LEGEND:
SHOULDER WIDENING
CONCRETE BRIDGE
PRELIMINARY
PRELIMINARY DESIGN FOR REVIEW ONLY
(P) HP
(P) EP
(P) 150' MGS
980'
380'
MOUNTAIN VIEW DR.
To Crescent City
SB
US 101
"PM 37.46 CL" LINE
NB
44'
60
2
12'
10'
N01° 30' 55.30"E
2500.00
To Smith River
REMOVE (E) 6'W X 6'T X 90'L RCB
REMOVE (2) (E) 36" X 98' RCP CULVERTS
PRIVATE ROAD
LOCATION 16
MELLO CREEK PM 37.46
LAYOUT
L-1
SCALE: 1"=10'
DESIGN
HALLEY AYCOCK-RIZZO
GABRIEL ADAME
ANDRE GUIMARAES
DEPARTMENT OF TRANSPORTATION
STATE OF CALIFORNIA
UNIT 0313
PROJECT NUMBER & PHASE
0120000135

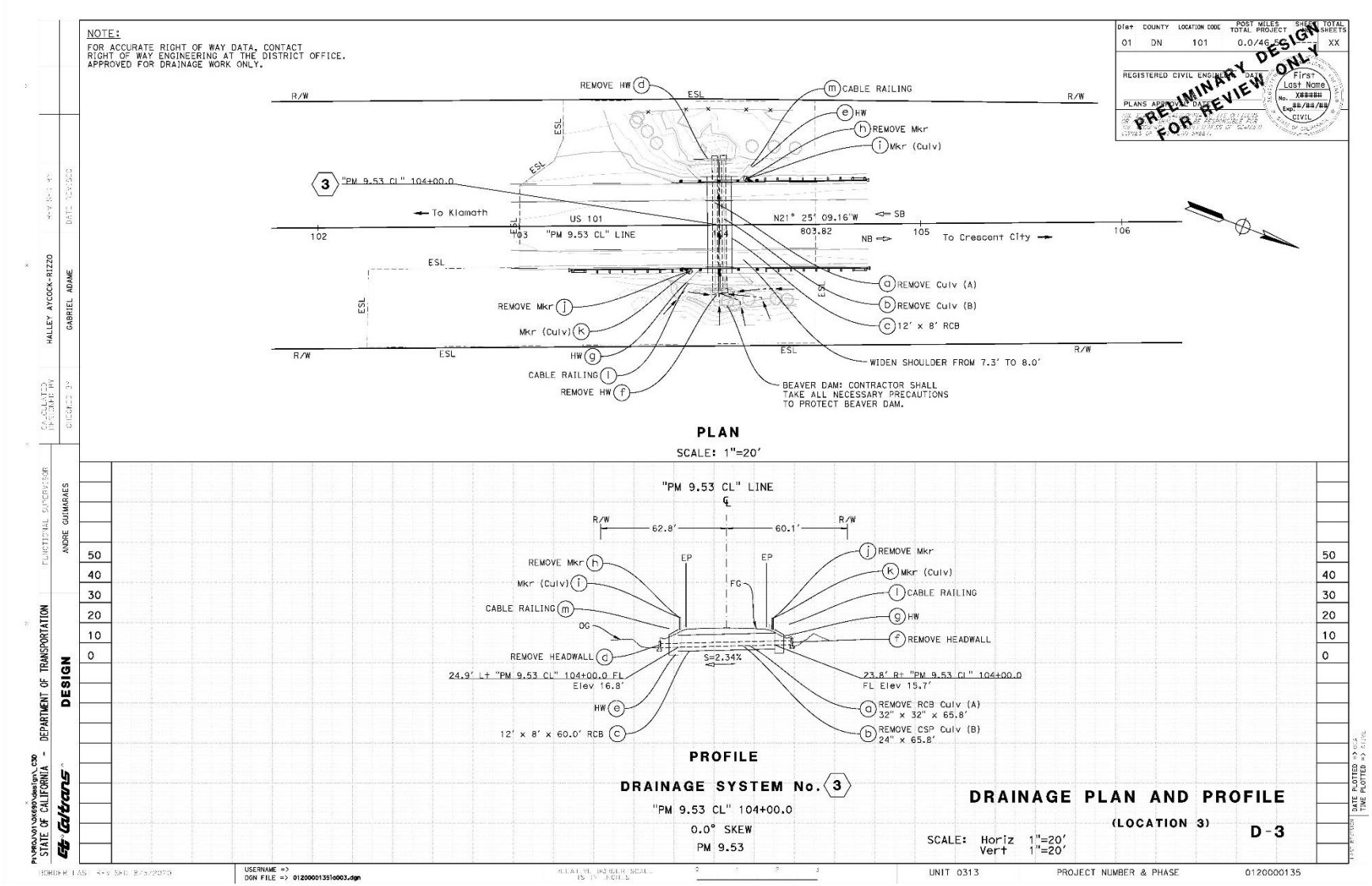

NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
APPROVED FOR DRAINAGE WORK ONLY.
Dist COUNTY LOCATION CODE
01 DN 101
POST MILES TOTAL PROJECT
0.0/46.5
SHEET TOTAL SHEETS
XX
PRELIMINARY
REGISTERED CIVIL ENGINEER DATE
PLANS APPROVAL DATE
PRELIMINARY DESIGN FOR REVIEW ONLY
First Last Name
No. XXXXX
Exp. ##/##/##
CIVIL
R/W
406'
[P] 150' MGS w MINOR CONCRETE VEG. CONTROL
To Klamath
US 101
"PM 37.46 CL" LINE
SB
NB
6
7
8
9
60
NOTE:
ADDITIONAL SURVEY DATA REQUIRED FOR THIS AREA.
347'
NOTE:
ADDITIONAL SURVEY DATA REQUIRED FOR THIS AREA.
330'
(P) CRASH CUSHION
N01° 30' 55.30"E
2500.00
2
3
4
To Crescent City
65
318'
SHOULDER DECREASE LENGTH
LOCATION 16
MELLO CREEK PM 37.46
LAYOUT
L-2
SCALE: 1"=20'
HALLEY AYCOCK-RIZZO
GABRIEL ADAME
ANDRE GUIMARAES
DESIGN
DEPARTMENT OF TRANSPORTATION
STATE OF CALIFORNIA
USERNAME =>
DGN FILE => 0120000135e0002.dgn
UNIT 0313
PROJECT NUMBER & PHASE
0120000135

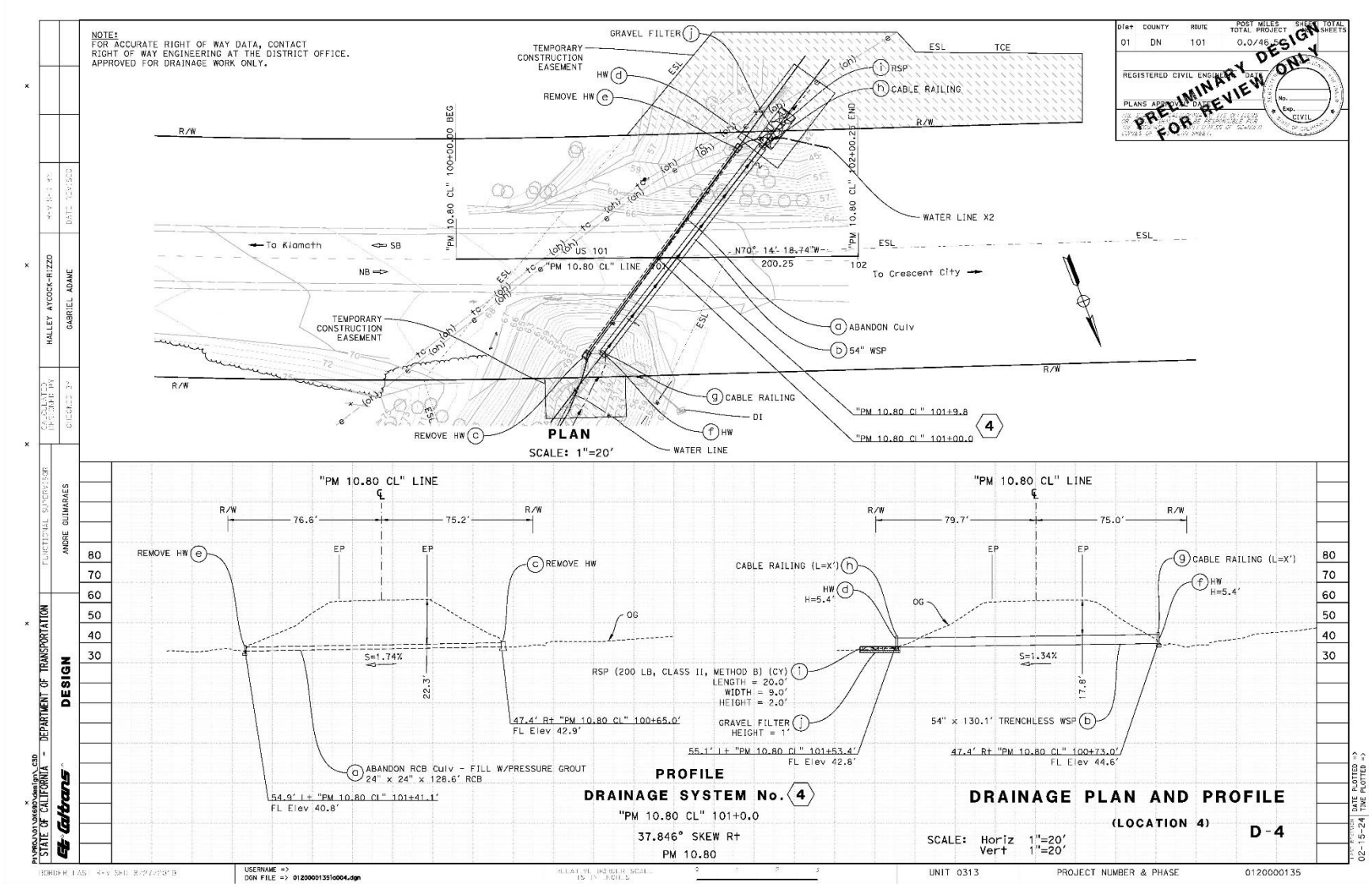

NOTE:
ELEVATIONS ARE BASED ON NAVD88
PRELIMINARY DESIGN FOR REVIEW ONLY
MATCH Ex'st
AXIS OF ROTATION
"101 CL" LINE
-2.0% Rt/Lt TRAVELED WAY
-5.0% Rt/Lt SHOULDER
-2.0% Rt/Lt TRAVELED WAY
-5.0% Rt/Lt SHOULDER
-2.0% Rt/Lt TRAVELED WAY & SHOULDER
MATCHLINE
+91.00
+50.00
+60.00
SUPERELEVATION DIAGRAM
ADDITIONAL SURVEY DATA REQUIRED FOR THIS AREA.
+20.60 POT
Elev 109.81
+74.17 POT
Elev 105.79
OG
PG
-1.586%
PROFILE AND SUPERELEVATION DIAGRAM
PM 37.46
SCALE: Horiz 1" = 20'
Vert 1" = 5'
PS-1
PROFILE
ROUTE 101
"101 CL" LINE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
HALLEY AYCOCK-RIZZO
GABRIEL ADAME
ANDRE GUIMARAES
STATION
CY
Exc
Emb
UNIT 0313
PROJECT NUMBER & PHASE
0120000135

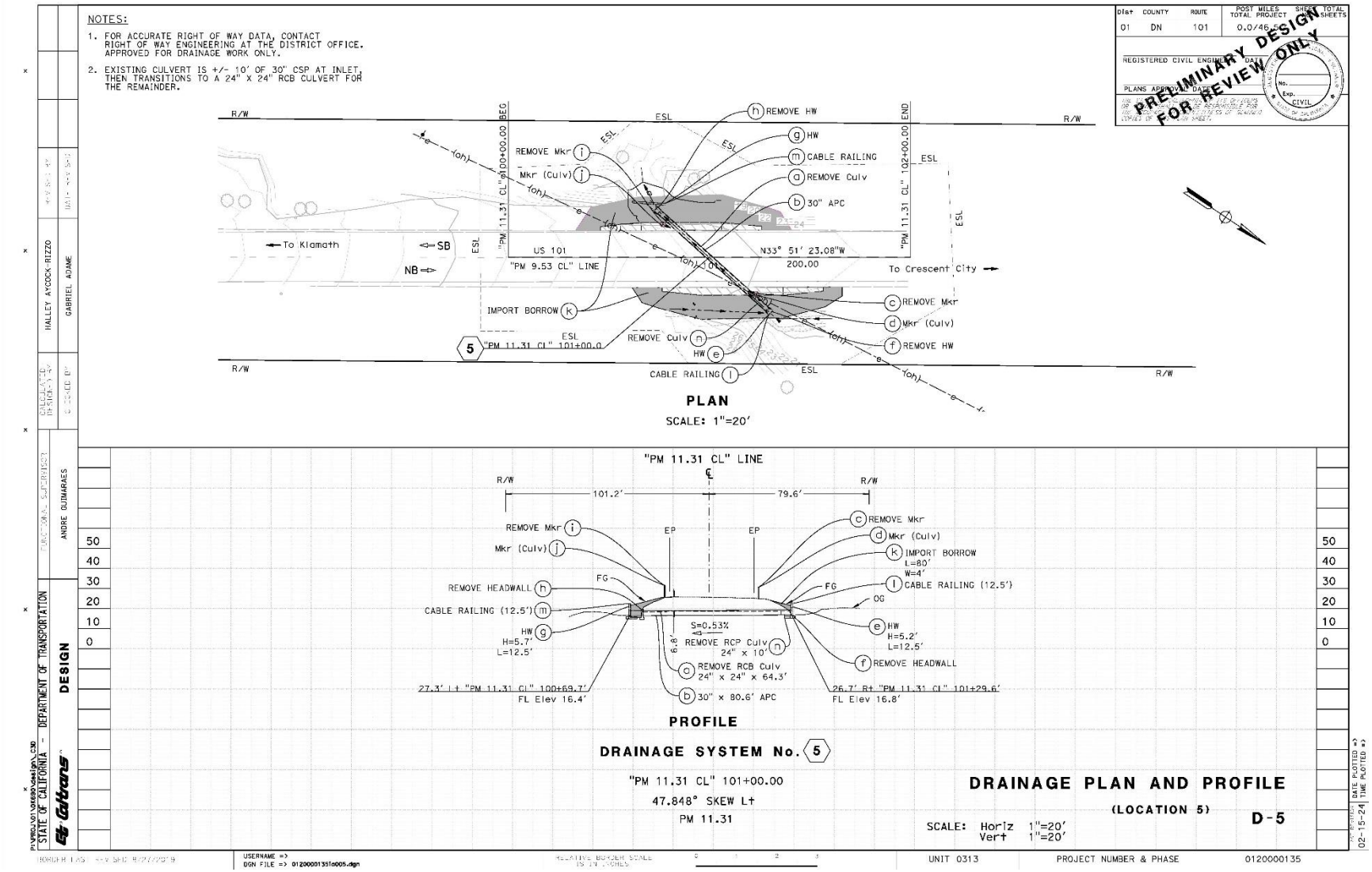

NOTE:
ELEVATIONS ARE BASED ON NAVD88
PRELIMINARY DESIGN FOR REVIEW ONLY
MATCHLINE
AXIS OF ROTATION "101 CL" LINE
-2.0% Rt/Lt TRAVELED WAY & SHOULDER
-2.0% Rt/Lt TRAVELED WAY
-5.0% Rt/Lt SHOULDER
MATCH Ex'st
+90.00
+00.00
+29.00
SUPERELEVATION DIAGRAM
MATCHLINE
-1.553%
EG
PG
+75.33 POT
Elev 102.66
-1.345%
+57.39 POT
Elev 101.55
ADDITIONAL SURVEY DATA REQUIRED FOR THIS AREA.
PROFILE
ROUTE 101
"101 CL" LINE
PROFILE AND
SUPERELEVATION DIAGRAM
PM 37.46
SCALE: Horiz 1" = 20'
Vert 1" = 5'
PS-2
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
STATION
CY Exc
Emb
TOTAL
UNIT 0313
PROJECT NUMBER & PHASE
0120000135

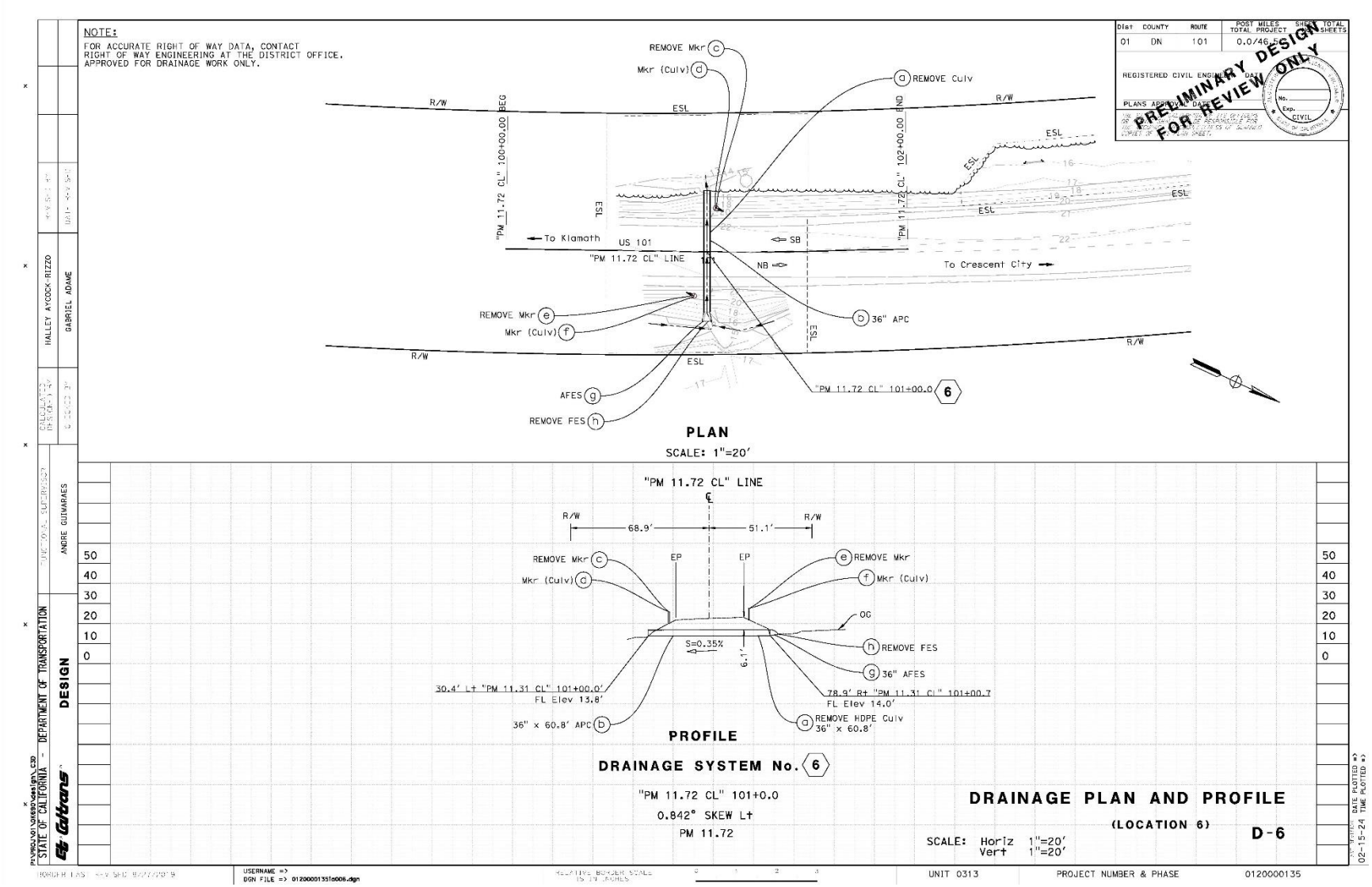

NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
APPROVED FOR DRAINAGE WORK ONLY.
LEGEND:
- ROCK SLOPE PROTECTION (RSP)
- GRAVEL FILTER
- DRAINAGE EASEMENT
- TRANSFER OF JURISDICTION (TOJ)
- TEMPORARY CONSTRUCTION EASEMENT (TCE)
- STAGING AREA
- CLAY
- NATIVE WETLAND MATERIAL
- ENVIRONMENTAL SURVEY LIMITS (ESL)
ABBREVIATIONS:
AFES = ALTERNATIVE FLARED END SECTION
PRELIMINARY DESIGN FOR REVIEW ONLY
PLAN
SCALE: 1"=20'
"PM 8.98 CL" LINE
PROFILE
DRAINAGE SYSTEM No. 1
"PM 8.98 CL" 101+0.0
10.142° SKEW Rt
PM 8.98
DRAINAGE PLAN AND PROFILE
(LOCATION 1)
D-1
SCALE: Horiz 1"=20'
Vert 1"=20'
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
UNIT 0313
PROJECT NUMBER & PHASE
0120000135

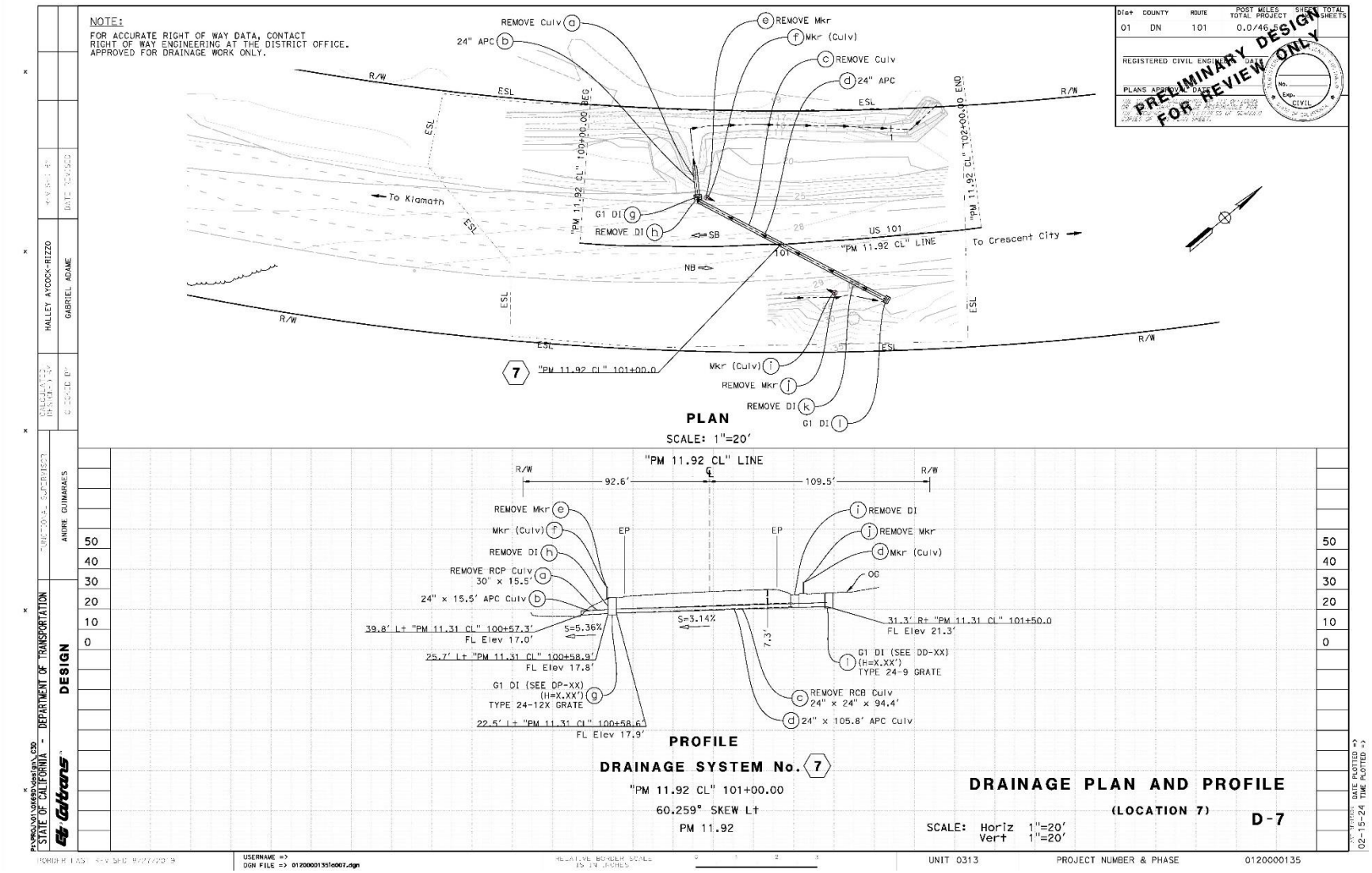

NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE. APPROVED FOR DRAINAGE WORK ONLY.
Dist COUNTY ROUTE POST MILES TOTAL PROJECT SHEET TOTAL SHEETS
01 DN 101 0.0/46.5
REGISTERED CIVIL ENGINEER DATE
PLANS APPROVAL DATE
PRELIMINARY DESIGN FOR REVIEW ONLY
No. Exp. CIVIL
"PM 9.12 CL" 100+00.00 BEG
"PM 9.12 CL" 102+00.00 END
REMOVE Mkr (c)
Mkr (Culv) (d)
(a) REMOVE Culv
(b) 48" APC
REMOVE Mkr (e)
Mkr (Culv) (f)
ESL
US 101
"PM 9.12 CL" LINE
To Klamath
To Crescent City
SB
NB
"PM 9.12 CL" 101+00.0 (2)
R/W
PLAN
SCALE: 1"=20'
"PM 9.12 CL" LINE
R/W
159.9'
109.7'
EP
OG
S=1.4%
41.9' Lt "PM 9.12 CL" 101+01.4'
FL Elev 14.8'
32.6' Rt "PM 9.12 CL" 100+98.9'
FL Elev 15.9'
(a) REMOVE CSP Culv 36" x 74.5'
(b) 48" x 74.5' APC
PROFILE
DRAINAGE SYSTEM No. (2)
"PM 9.12 CL" 101+00.0
1.918° SKEW Rt
PM 9.12
DRAINAGE PLAN AND PROFILE
(LOCATION 2)
SCALE: Horiz 1"=20'
Vert 1"=20'
D-2
HALLEY AYCOCK-RIZZO
GABRIEL ADAME
ANDRE GUIMARAES
FUNCTIONAL SUPERVISOR
DESIGN
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
USERNAME =>
DGN FILE => 0120000135fa002.dgn
UNIT 0313
PROJECT NUMBER & PHASE
0120000135
DATE PLOTTED =>
02-15-24

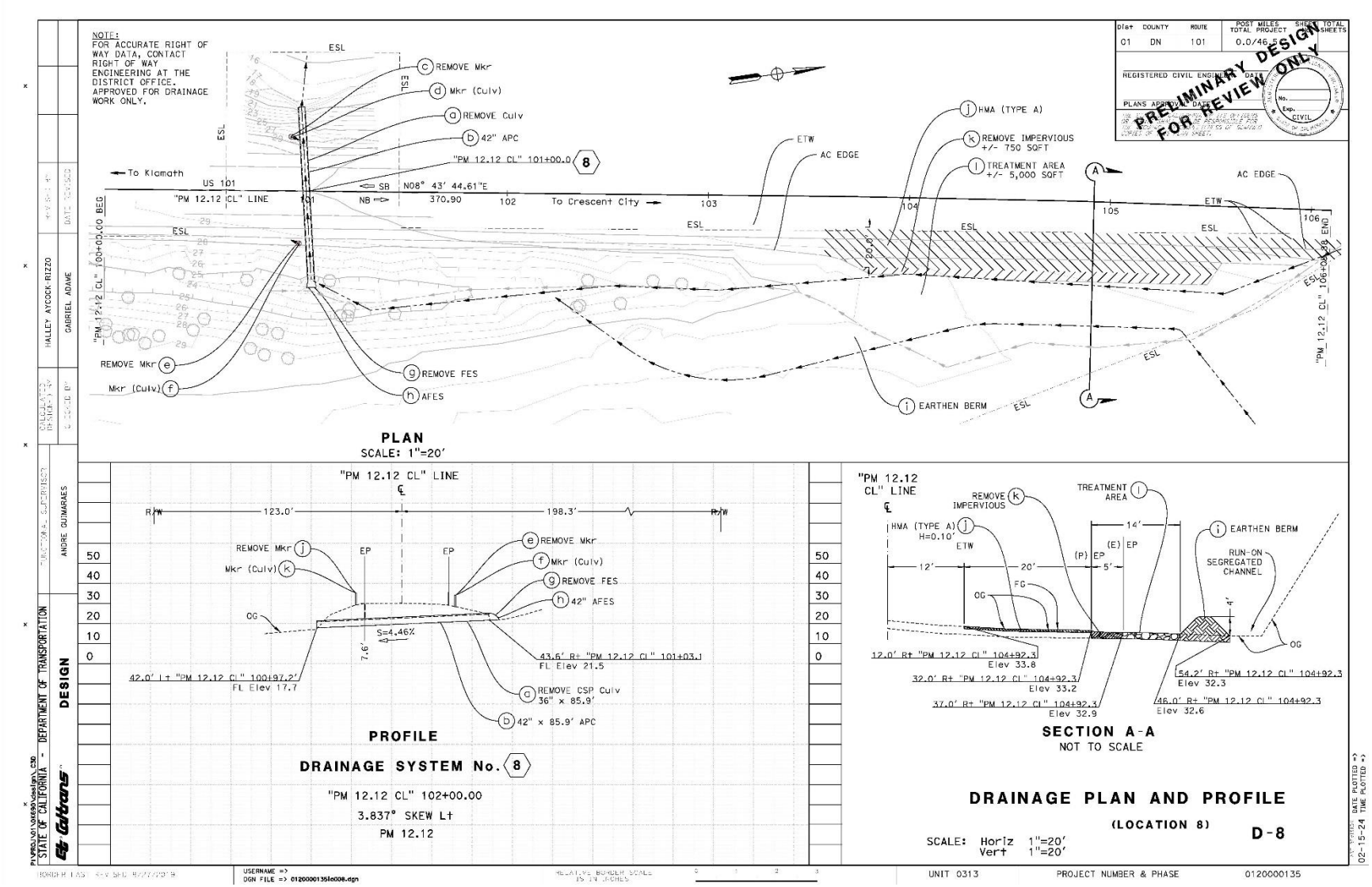

NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE. APPROVED FOR DRAINAGE WORK ONLY.
PRELIMINARY DESIGN FOR REVIEW ONLY
REMOVE HW (d)
CABLE RAILING (m)
HW (e)
REMOVE Mkr (h)
Mkr (Culv) (i)
R/W
ESL
3 "PM 9.53 CL" 104+00.0
To Klamath
US 101
N21° 25' 09.16"W
SB
NB
To Crescent City
102
103
"PM 9.53 CL" LINE
104
803.82
105
106
REMOVE Culv (A) (a)
REMOVE Culv (B) (b)
12' x 8' RCB (c)
REMOVE Mkr (j)
Mkr (Culv) (k)
HW (g)
CABLE RAILING (l)
REMOVE HW (f)
WIDEN SHOULDER FROM 7.3' TO 8.0'
BEAVER DAM: CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT BEAVER DAM.
PLAN
SCALE: 1"=20'
"PM 9.53 CL" LINE
R/W
62.8'
60.1'
EP
FG
OG
S=2.34%
REMOVE Mkr (h)
Mkr (Culv) (i)
CABLE RAILING (m)
REMOVE HEADWALL (d)
24.9' Lt "PM 9.53 CL" 104+00.0 FL Elev 16.8'
HW (e)
12' x 8' x 60.0' RCB (c)
REMOVE Mkr (j)
Mkr (Culv) (k)
CABLE RAILING (l)
HW (g)
REMOVE HEADWALL (f)
23.8' Rt "PM 9.53 CL" 104+00.0 FL Elev 15.7'
REMOVE RCB Culv (A) 32" x 32" x 65.8' (a)
REMOVE CSP Culv (B) 24" x 65.8' (b)
50
40
30
20
10
0
PROFILE
DRAINAGE SYSTEM No. 3
"PM 9.53 CL" 104+00.0
0.0° SKEW
PM 9.53
DRAINAGE PLAN AND PROFILE
(LOCATION 3)
D-3
SCALE: Horiz 1"=20'
Vert 1"=20'
DIST 01 | COUNTY DN | LOCATION CODE 101 | POST MILES TOTAL PROJECT 0.0/46.5 | SHEET TOTAL SHEETS XX
REGISTERED CIVIL ENGINEER DATE
First Last Name No. XXXXX Exp. 06/30/XX CIVIL
PLANS APPROVAL DATE
HALLEY AYCOCK-RIZZO
GABRIEL ADAME
ANDRE GUIMARAES
DESIGN
DEPARTMENT OF TRANSPORTATION
STATE OF CALIFORNIA
Caltrans
USERNAME =>
DGN FILE => 0120000135\o003.dgn
UNIT 0313
PROJECT NUMBER & PHASE
0120000135

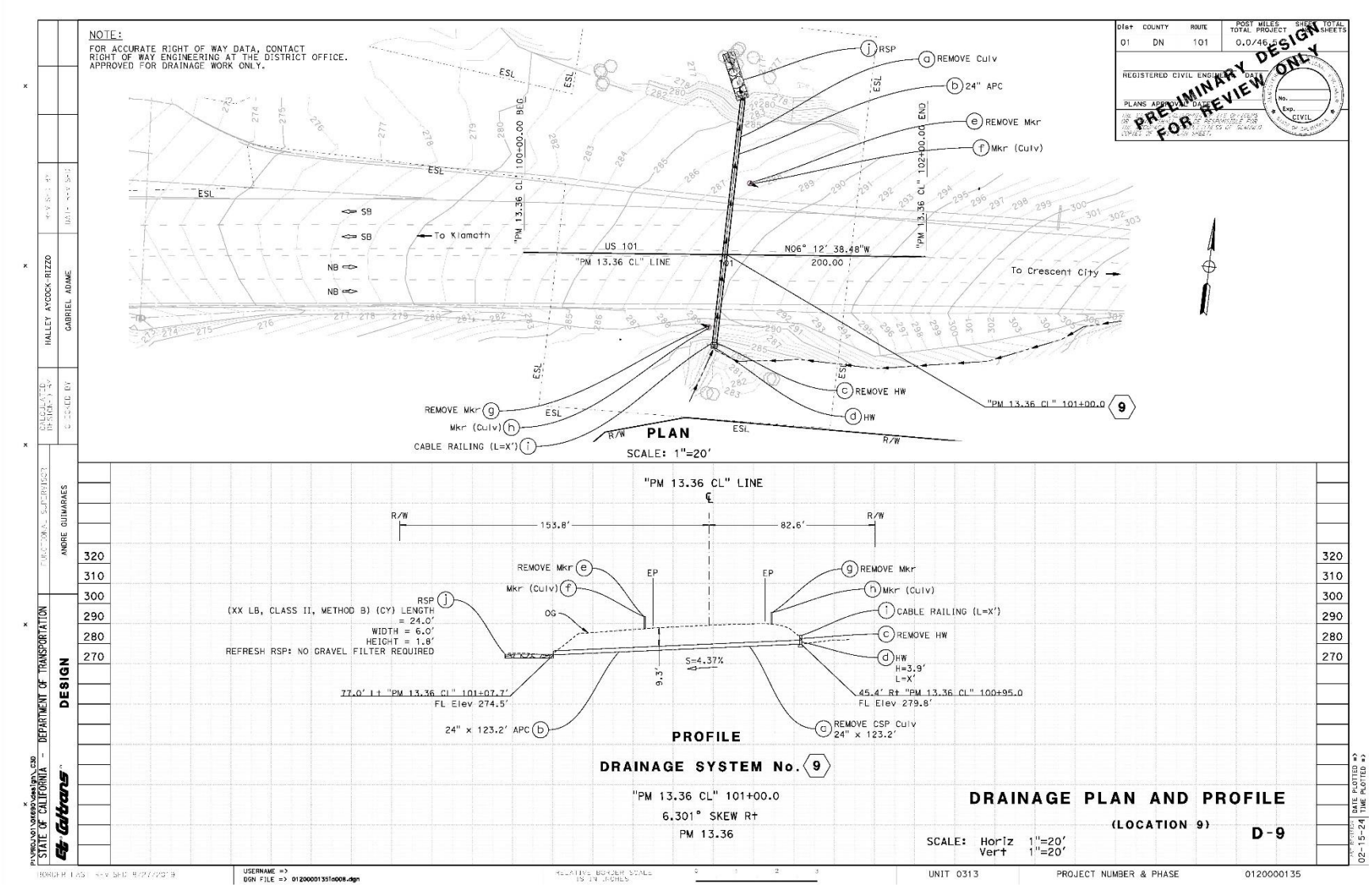

NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
APPROVED FOR DRAINAGE WORK ONLY.
PRELIMINARY DESIGN FOR REVIEW ONLY
GRAVEL FILTER (j)
TEMPORARY CONSTRUCTION EASEMENT
HW (d)
REMOVE HW (e)
RSP (i)
CABLE RAILING (h)
WATER LINE X2
ABANDON Culv (a)
54" WSP (b)
CABLE RAILING (g)
DI
HW (f)
REMOVE HW (c)
WATER LINE
"PM 10.80 CL" 100+00.00 BEG
"PM 10.80 CL" 102+00.25 END
"PM 10.80 CL" LINE
N70° 14' 18.74"W
200.25
US 101
To Klamath
SB
NB
To Crescent City
R/W
ESL
TCE
"PM 10.80 CL" 101+9.8
"PM 10.80 CL" 101+00.0
4
PLAN
SCALE: 1"=20'
"PM 10.80 CL" LINE
76.6'
75.2'
S=1.74%
22.3'
OG
47.4' Rt "PM 10.80 CL" 100+65.0'
FL Elev 42.9'
54.9' Lt "PM 10.80 CL" 101+41.1'
FL Elev 40.8'
ABANDON RCB Culv - FILL W/PRESSURE GROUT
24" x 24" x 128.6' RCB
79.7'
75.0'
S=1.34%
17.8'
CABLE RAILING (L=X')
HW H=5.4'
RSP (200 LB, CLASS II, METHOD B) (CY)
LENGTH = 20.0'
WIDTH = 9.0'
HEIGHT = 2.0'
GRAVEL FILTER HEIGHT = 1'
55.1' Lt "PM 10.80 CL" 101+53.4'
FL Elev 42.8'
54" x 130.1' TRENCHLESS WSP
47.4' Rt "PM 10.80 CL" 100+73.0'
FL Elev 44.6'
PROFILE
DRAINAGE SYSTEM No. 4
"PM 10.80 CL" 101+0.0
37.846° SKEW Rt
PM 10.80
DRAINAGE PLAN AND PROFILE
(LOCATION 4)
SCALE: Horiz 1"=20'
Vert 1"=20'
D-4
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
HALLEY AYCOCK-RIZZO
GABRIEL ADAME
ANDRE GUIMARAES
UNIT 0313
PROJECT NUMBER & PHASE
0120000135

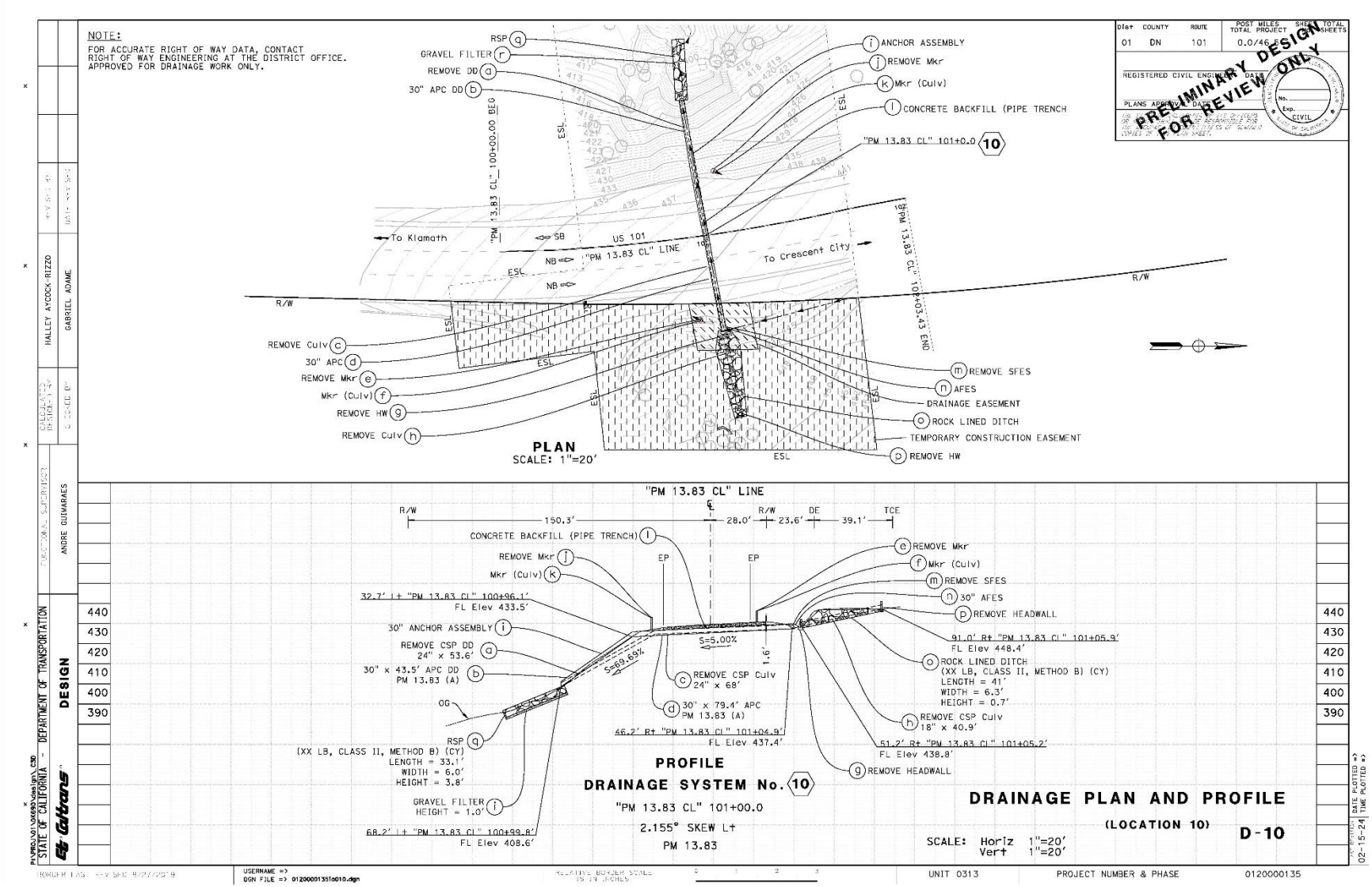

NOTES:
1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE. APPROVED FOR DRAINAGE WORK ONLY.
2. EXISTING CULVERT IS +/- 10' OF 30" CSP AT INLET, THEN TRANSITIONS TO A 24" X 24" RCB CULVERT FOR THE REMAINDER.
Dist COUNTY ROUTE POST MILES TOTAL PROJECT SHEET TOTAL SHEETS
01 DN 101 0.0/46.5
PRELIMINARY DESIGN FOR REVIEW ONLY
REGISTERED CIVIL ENGINEER DATE
PLANS APPROVAL DATE
No. Exp. CIVIL
R/W
ESL
BEG 100+00.00
END 102+00.00
"PM 11.31 CL"
REMOVE Mkr (i)
Mkr (Culv) (j)
REMOVE HW (h)
HW (g)
CABLE RAILING (m)
REMOVE Culv (a)
30" APC (b)
To Klamath
SB
NB
US 101
"PM 9.53 CL" LINE
N33° 51' 23.08"W
200.00
To Crescent City
IMPORT BORROW (k)
REMOVE Culv (n)
HW (e)
CABLE RAILING (l)
REMOVE Mkr (c)
Mkr (Culv) (d)
REMOVE HW (f)
5 "PM 11.31 CL" 101+00.0
PLAN
SCALE: 1"=20'
"PM 11.31 CL" LINE
101.2'
79.6'
EP
FG
OG
REMOVE HEADWALL (h)
CABLE RAILING (12.5') (m)
HW (g) H=5.7' L=12.5'
S=0.53%
REMOVE RCP Culv (n) 24" x 10'
REMOVE RCB Culv 24" x 24" x 64.3'
30" x 80.6' APC (b)
IMPORT BORROW (k) L=80' W=4'
CABLE RAILING (12.5') (l)
HW (e) H=5.2' L=12.5'
REMOVE HEADWALL (f)
27.3' Lt "PM 11.31 CL" 100+69.7' FL Elev 16.4'
26.7' Rt "PM 11.31 CL" 101+29.6' FL Elev 16.8'
PROFILE
DRAINAGE SYSTEM No. 5
"PM 11.31 CL" 101+00.00
47.848° SKEW Lt
PM 11.31
DRAINAGE PLAN AND PROFILE
(LOCATION 5)
SCALE: Horiz 1"=20' Vert 1"=20'
D-5
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
ANDRE DUMARAS
HALLEY AYCOCK-RIZZO
GABRIEL ADAME
USERNAME =>
DGN FILE => 0120000135t0005.dgn
UNIT 0313
PROJECT NUMBER & PHASE 0120000135
DATE PLOTTED => 02-15-24


NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE. APPROVED FOR DRAINAGE WORK ONLY.
Dist COUNTY ROUTE POST MILES TOTAL PROJECT SHEET TOTAL SHEETS
01 DN 101 0.0/46.5
REGISTERED CIVIL ENGINEER DATE
PLANS APPROVAL DATE
PRELIMINARY DESIGN FOR REVIEW ONLY
REMOVE Mkr c
Mkr (Culv) d
a REMOVE Culv
R/W
ESL
BEG "PM 11.72 CL" 100+00.00
END "PM 11.72 CL" 102+00.00
To Klamath
US 101
"PM 11.72 CL" LINE
SB
NB
To Crescent City
REMOVE Mkr e
Mkr (Culv) f
b 36" APC
AFES g
REMOVE FES h
"PM 11.72 CL" 101+00.0 6
PLAN
SCALE: 1"=20'
"PM 11.72 CL" LINE
68.9'
51.1'
EP
OG
S=0.35%
6.1'
30.4' Lt "PM 11.31 CL" 101+00.0'
FL Elev 13.8'
36" x 60.8' APC
78.9' Rt "PM 11.31 CL" 101+00.7
FL Elev 14.0'
REMOVE HDPE Culv
36" x 60.8'
PROFILE
DRAINAGE SYSTEM No. 6
"PM 11.72 CL" 101+0.0
0.842° SKEW Lt
PM 11.72
DRAINAGE PLAN AND PROFILE
(LOCATION 6)
SCALE: Horiz 1"=20'
Vert 1"=20'
D-6
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
DIRECTOR'S SUPERVISOR ANDRE GUIMARAES
CALCULATED DESIGNED BY HALLEY AYCOCK-RIZZO
DRAWN BY GABRIEL ADAME
CHECKED BY
USERNAME => DGN FILE => 0120000135t0006.dgn
UNIT 0313
PROJECT NUMBER & PHASE 0120000135
DATE PLOTTED => 02-15-24 TIME PLOTTED =>

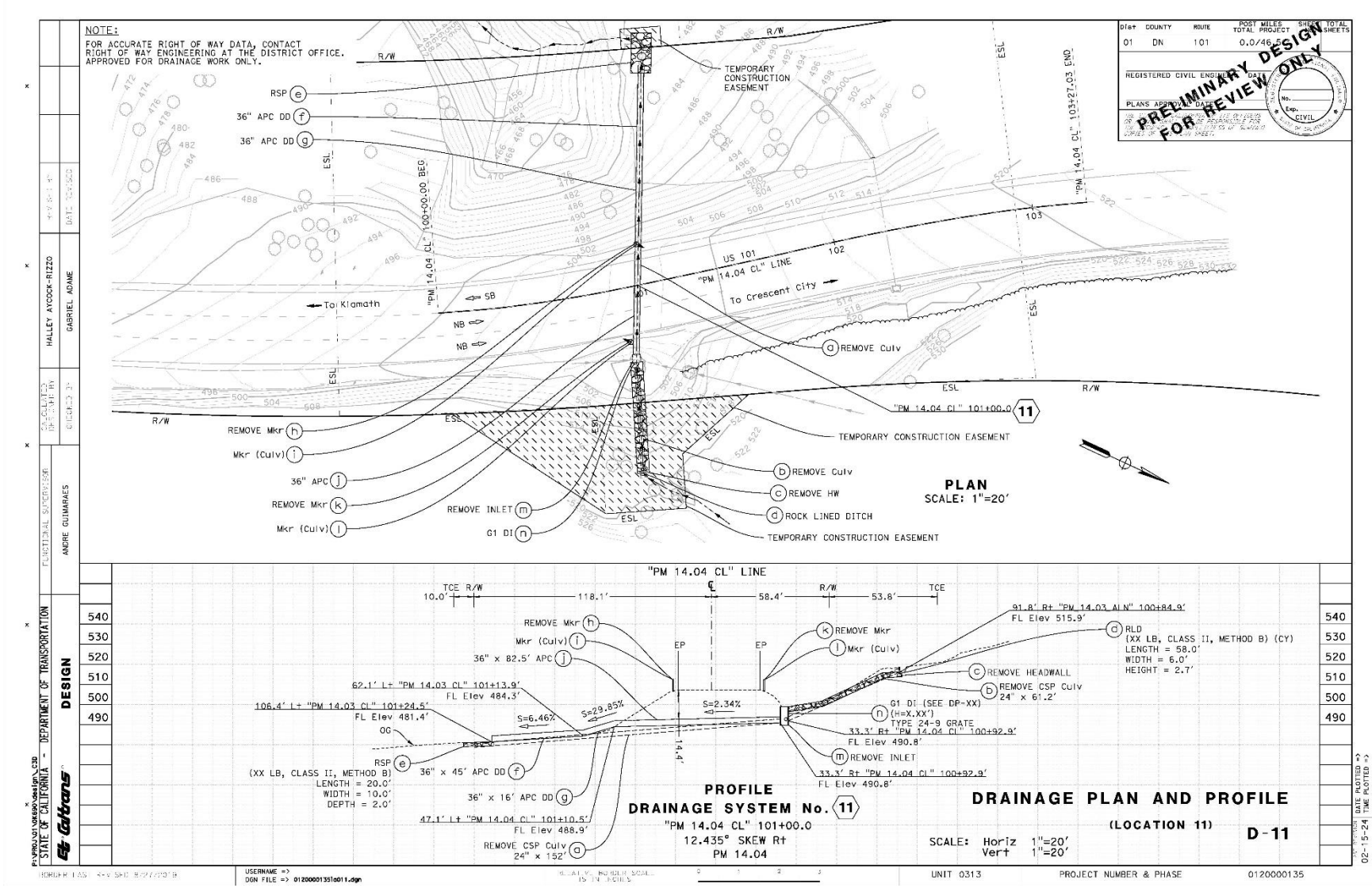

NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE. APPROVED FOR DRAINAGE WORK ONLY.
Dist COUNTY ROUTE POST MILES TOTAL PROJECT SHEETS TOTAL SHEETS
01 DN 101 0.0/46.5
PRELIMINARY DESIGN FOR REVIEW ONLY
REGISTERED CIVIL ENGINEER DATE
PLANS APPROVAL DATE
REMOVE Culv (a)
24" APC (b)
REMOVE Mkr (e)
Mkr (Culv) (f)
REMOVE Culv (c)
24" APC (d)
R/W
ESL
"PM 11.92 CL" 100+00.00 BEG
"PM 11.92 CL" 102+00.00 END
To Klamath
G1 DI (g)
REMOVE DI (h)
SB
US 101
"PM 11.92 CL" LINE
To Crescent City
NB
101
7
"PM 11.92 CL" 101+00.0
Mkr (Culv) (i)
REMOVE Mkr (j)
REMOVE DI (k)
G1 DI (l)
PLAN
SCALE: 1"=20'
"PM 11.92 CL" LINE
92.6'
109.5'
REMOVE Mkr (e)
Mkr (Culv) (f)
REMOVE DI (h)
REMOVE RCP Culv 30" x 15.5' (a)
24" x 15.5' APC Culv (b)
39.8' Lt "PM 11.31 CL" 100+57.3' FL Elev 17.0'
S=5.36%
25.7' Lt "PM 11.31 CL" 100+58.9' FL Elev 17.8'
G1 DI (SEE DP-XX) (H=X.XX') TYPE 24-12X GRATE (g)
22.5' Lt "PM 11.31 CL" 100+58.6' FL Elev 17.9'
EP
S=3.14%
7.3'
REMOVE DI (i)
REMOVE Mkr (j)
Mkr (Culv) (d)
OG
31.3' Rt "PM 11.31 CL" 101+50.0 FL Elev 21.3'
G1 DI (SEE DD-XX) (H=X.XX') TYPE 24-9 GRATE (l)
REMOVE RCB Culv 24" x 24" x 94.4' (c)
24" x 105.8' APC Culv (d)
PROFILE
DRAINAGE SYSTEM No. 7
"PM 11.92 CL" 101+00.00
60.259° SKEW Lt
PM 11.92
DRAINAGE PLAN AND PROFILE
(LOCATION 7)
SCALE: Horiz 1"=20' Vert 1"=20'
D-7
HALLEY AYCOCK-RIZZO
GABRIEL ADAME
ANDRE GUIMARAES
DESIGN
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
USERNAME => DGN FILE => 0120000135e007.dgn
UNIT 0313
PROJECT NUMBER & PHASE 0120000135
DATE PLOTTED => 02-15-24 TIME PLOTTED =>

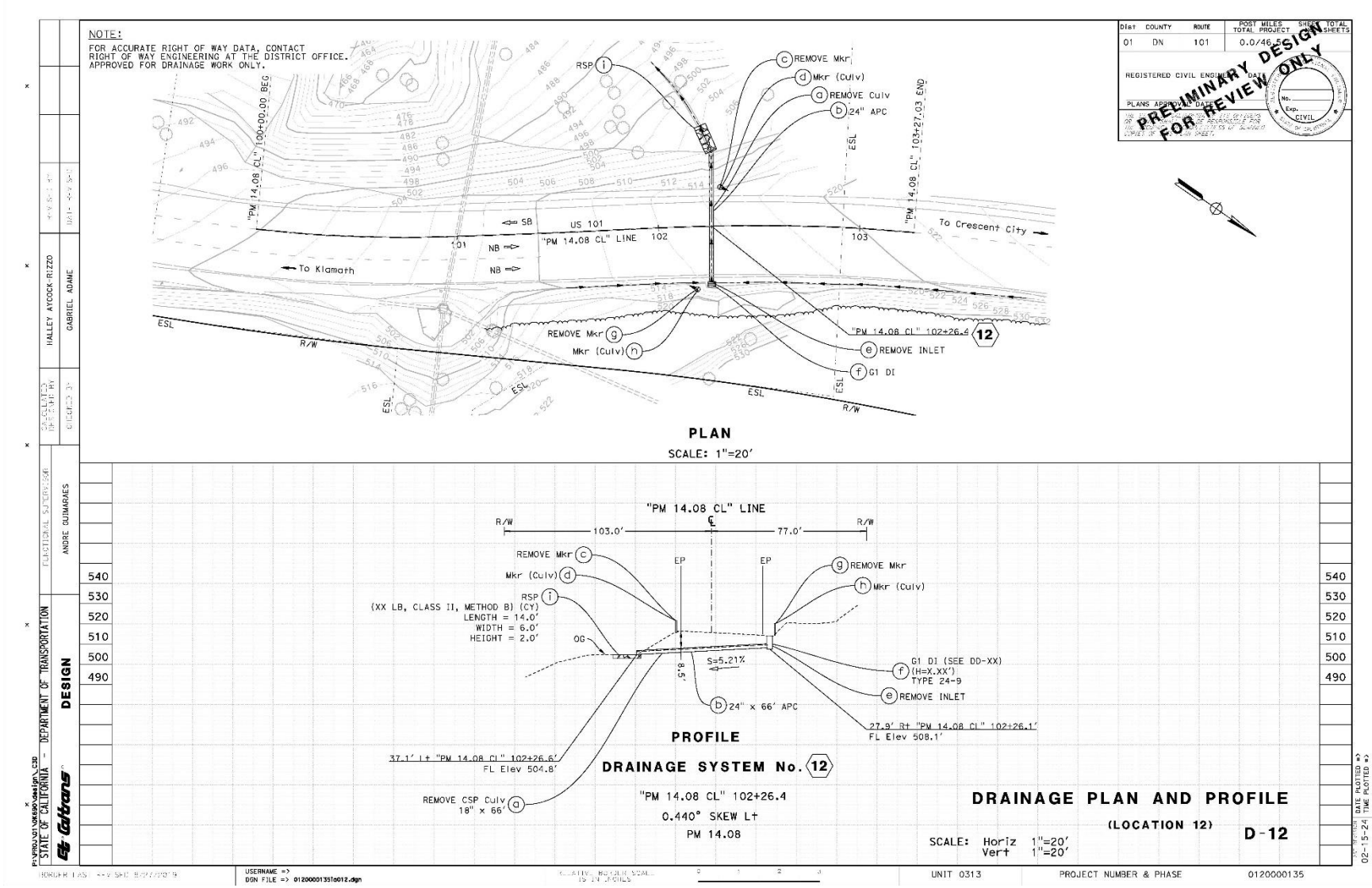

NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE. APPROVED FOR DRAINAGE WORK ONLY.
Dist COUNTY ROUTE POST MILES TOTAL PROJECT SHEETS TOTAL SHEETS
01 DN 101 0.0/46.5
REGISTERED CIVIL ENGINEER DATE
PLANS APPROVAL DATE
PRELIMINARY DESIGN FOR REVIEW ONLY
c REMOVE Mkr
d Mkr (Culv)
a REMOVE Culv
b 42" APC
"PM 12.12 CL" 101+00.0 8
To Klamath
US 101
"PM 12.12 CL" LINE
SB
NB
N08° 43' 44.61"E
370.90
To Crescent City
ESL
ETW
AC EDGE
j HMA (TYPE A)
k REMOVE IMPERVIOUS +/- 750 SQFT
l TREATMENT AREA +/- 5,000 SQFT
20.0'
"PM 12.12 CL" 100+00.00 BEG
"PM 12.12 CL" 106+00.00 END
REMOVE Mkr e
Mkr (Culv) f
g REMOVE FES
h AFES
i EARTHEN BERM
PLAN
SCALE: 1"=20'
"PM 12.12 CL" LINE
R/W
123.0'
198.3'
REMOVE Mkr j
Mkr (Culv) k
EP
OG
S=4.46%
7.6'
e REMOVE Mkr
f Mkr (Culv)
g REMOVE FES
h 42" AFES
43.6' Rt "PM 12.12 CL" 101+03.1
FL Elev 21.5
42.0' Lt "PM 12.12 CL" 100+97.2'
FL Elev 17.7
d REMOVE CSP Culv 36" x 85.9'
b 42" x 85.9' APC
PROFILE
DRAINAGE SYSTEM No. 8
"PM 12.12 CL" 102+00.00
3.837° SKEW Lt
PM 12.12
"PM 12.12 CL" LINE
REMOVE IMPERVIOUS k
TREATMENT AREA l
HMA (TYPE A) j H=0.10'
ETW
(P) EP
(E) EP
14'
12'
20'
5'
FG
OG
i EARTHEN BERM
RUN-ON SEGREGATED CHANNEL
4'
12.0' Rt "PM 12.12 CL" 104+92.3 Elev 33.8
32.0' Rt "PM 12.12 CL" 104+92.3 Elev 33.2
37.0' Rt "PM 12.12 CL" 104+92.3 Elev 32.9
54.2' Rt "PM 12.12 CL" 104+92.3 Elev 32.3
46.0' Rt "PM 12.12 CL" 104+92.3 Elev 32.6
SECTION A-A
NOT TO SCALE
DRAINAGE PLAN AND PROFILE
(LOCATION 8)
D-8
SCALE: Horiz 1"=20'
Vert 1"=20'
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
HALLEY AYCOCK-RIZZO
GABRIEL ADAME
ANDRE QUIMARAES
USERNAME =>
DGN FILE => 0120000135la008.dgn
UNIT 0313
PROJECT NUMBER & PHASE
0120000135
DATE PLOTTED => 02-15-24

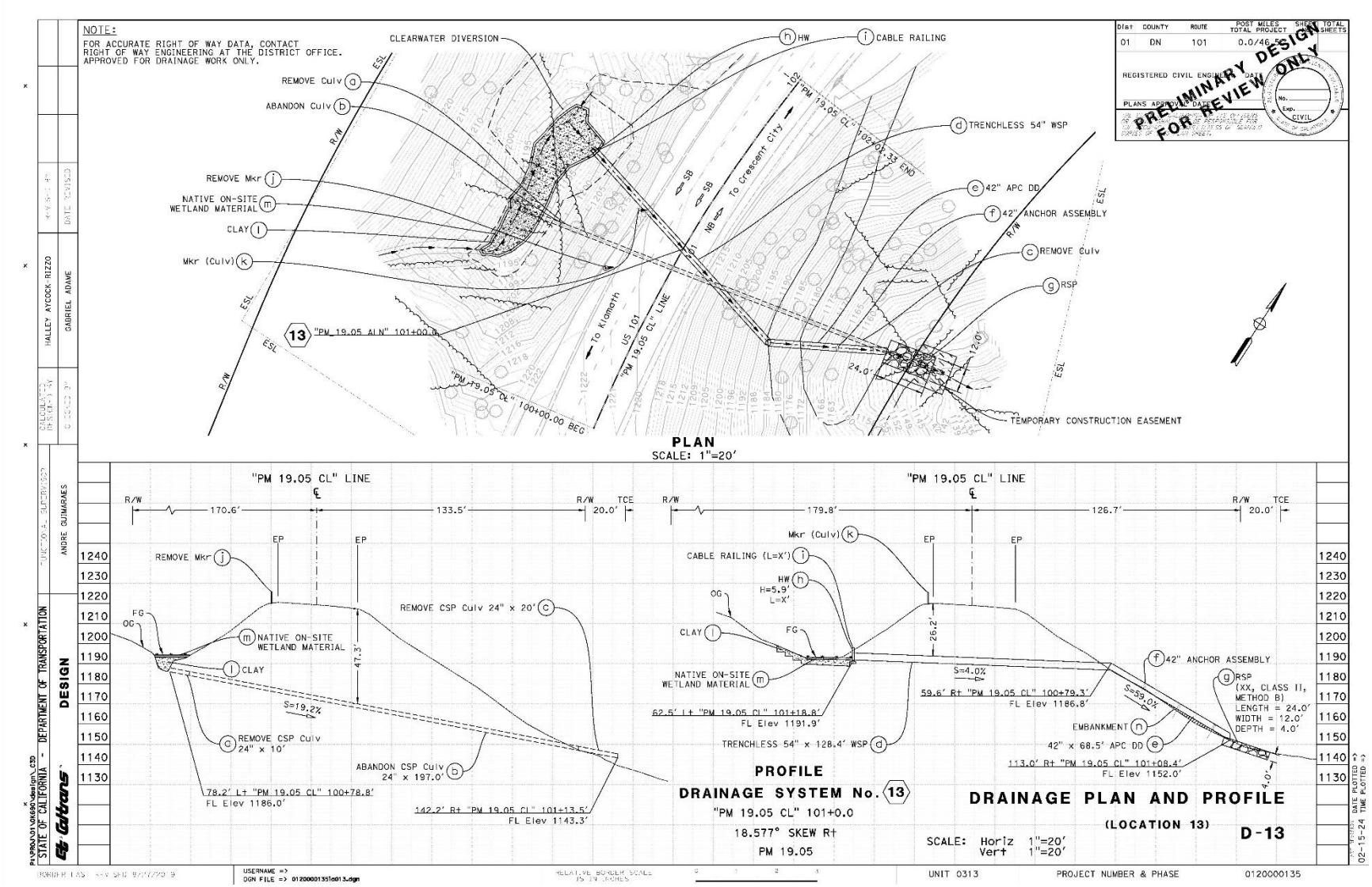

NOTE:
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Dist COUNTY ROUTE POST MILES TOTAL PROJECT SHEET TOTAL SHEETS
01 DN 101 0.0/46.5
PRELIMINARY DESIGN FOR REVIEW ONLY
REGISTERED CIVIL ENGINEER DATE
PLANS APPROVAL DATE
No. Exp. CIVIL
ESL
SB
NB
To Klamath
To Crescent City
US 101
"PM 13.36 CL" LINE
N06° 12' 38.48"W
200.00
"PM 13.36 CL" 100+00.00 BEG
"PM 13.36 CL" 102+00.00 END
RSP
REMOVE Culv
24" APC
REMOVE Mkr
Mkr (Culv)
REMOVE HW
HW
REMOVE Mkr
Mkr (Culv)
CABLE RAILING (L=X')
"PM 13.36 CL" 101+00.0
9
R/W
PLAN
SCALE: 1"=20'
"PM 13.36 CL" LINE
153.8'
82.6'
EP
OG
S=4.37%
9.3'
(XX LB, CLASS II, METHOD B) (CY) LENGTH = 24.0'
WIDTH = 6.0'
HEIGHT = 1.8'
REFRESH RSP: NO GRAVEL FILTER REQUIRED
77.0' Lt "PM 13.36 CL" 101+07.7'
FL Elev 274.5'
24" x 123.2' APC
45.4' Rt "PM 13.36 CL" 100+95.0
FL Elev 279.8'
REMOVE CSP Culv 24" x 123.2'
H=3.9'
L=X'
PROFILE
DRAINAGE SYSTEM No. 9
"PM 13.36 CL" 101+00.0
6.301° SKEW Rt
PM 13.36
DRAINAGE PLAN AND PROFILE
(LOCATION 9)
D-9
SCALE: Horiz 1"=20'
Vert 1"=20'
HALLEY AYCOCK-RIZZO
GABRIEL ADAME
ANDRE GUIMARAES
DESIGN
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
USERNAME =>
DGN FILE => 0120000135t0008.dgn
UNIT 0313
PROJECT NUMBER & PHASE
0120000135
DATE PLOTTED => 02-15-24

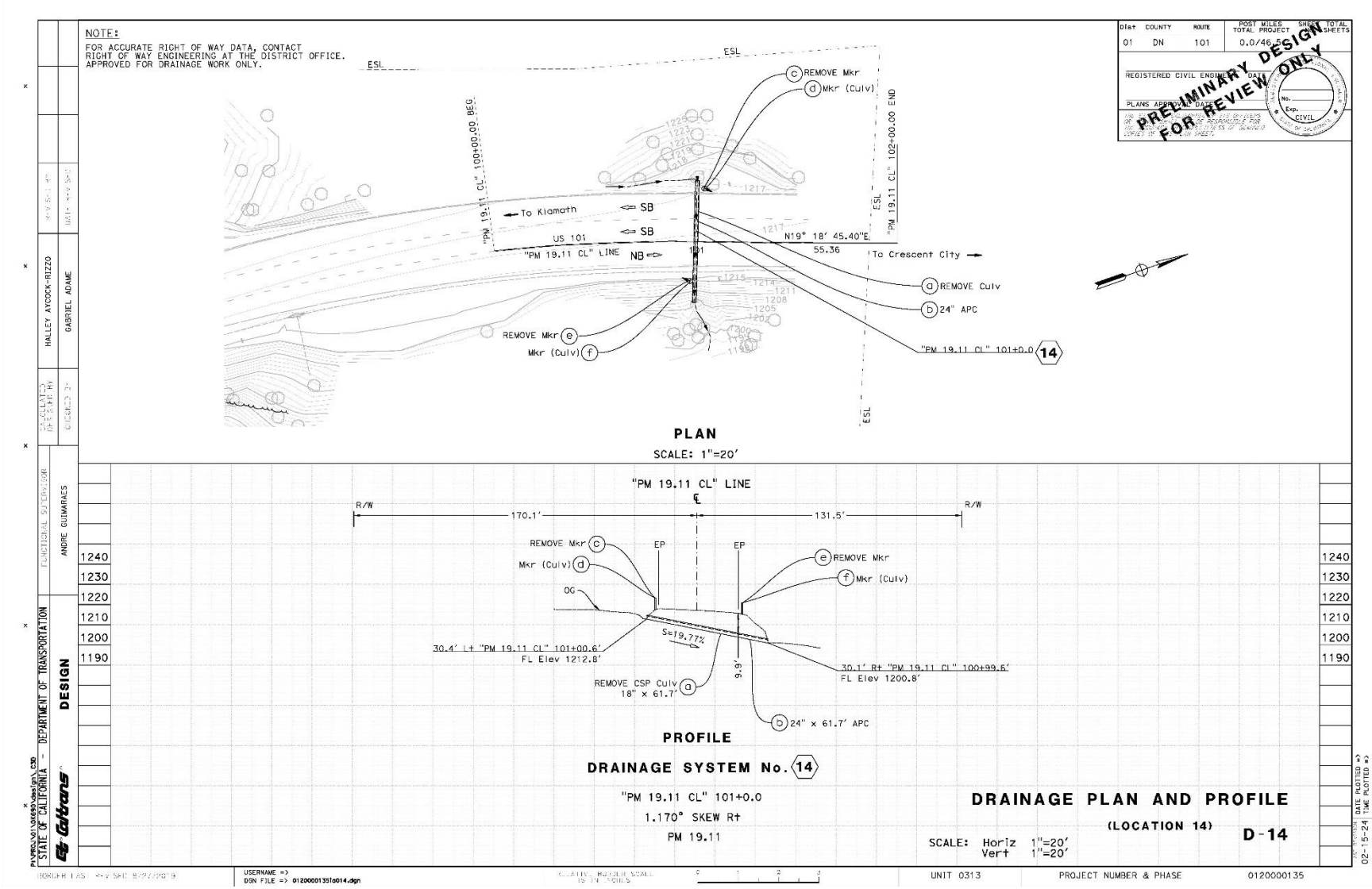


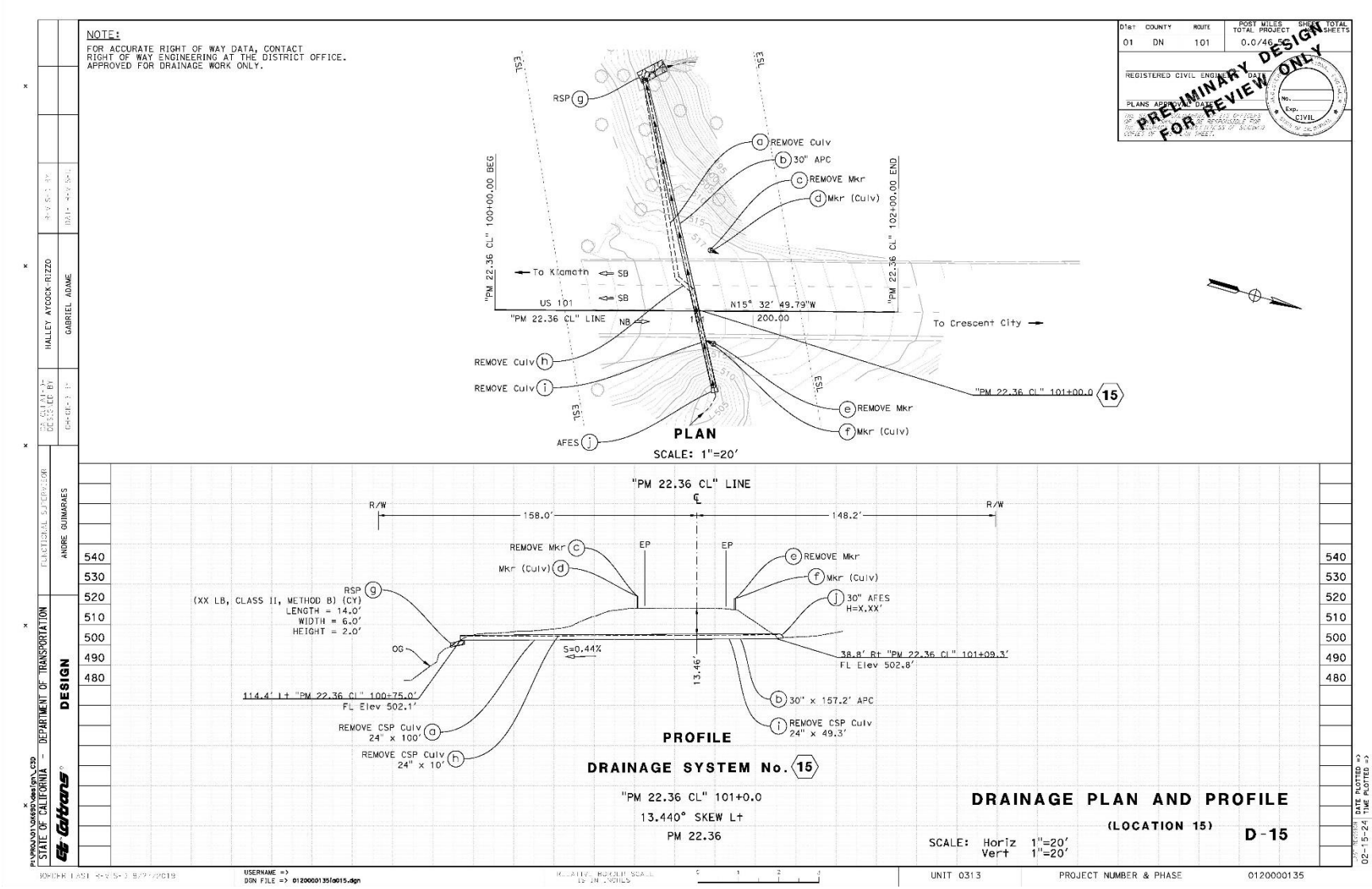
Initial Study with Negative Declaration
EA 01-0K690 Culvert Rehabilitation and Fish Passage Project *March 2026*

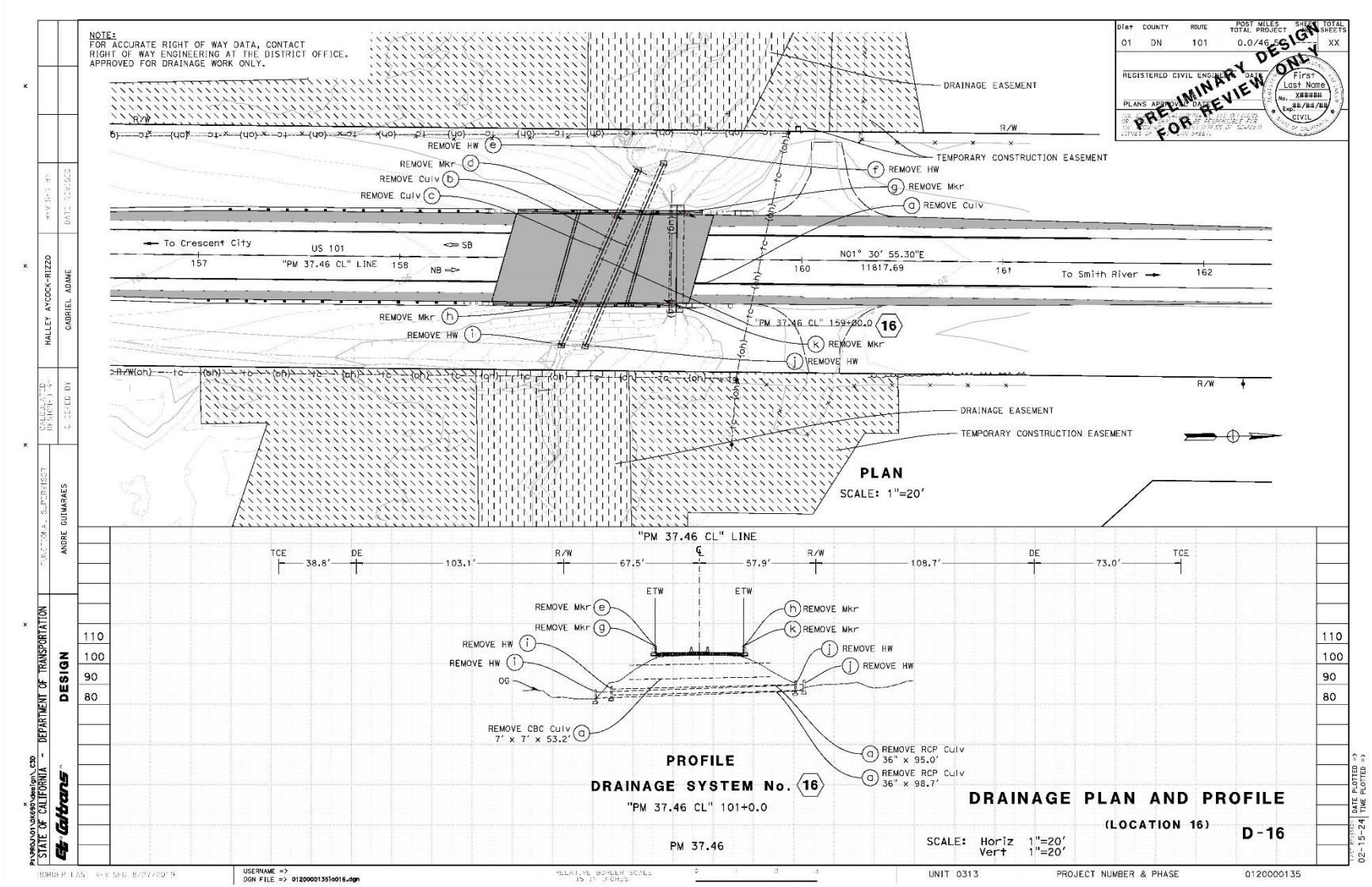

NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE. APPROVED FOR DRAINAGE WORK ONLY.
PRELIMINARY DESIGN FOR REVIEW ONLY
TEMPORARY CONSTRUCTION EASEMENT
RSP (e)
36" APC DD (f)
36" APC DD (g)
"PM 14.04 CL" 100+00.00 BEG
"PM 14.04 CL" 103+27.03 END
US 101
"PM 14.04 CL" LINE
To Klamath
To Crescent City
SB
NB
NB
REMOVE Culv (a)
"PM 14.04 CL" 101+00.0 (11)
TEMPORARY CONSTRUCTION EASEMENT
REMOVE Mkr (h)
Mkr (Culv) (i)
36" APC (j)
REMOVE Mkr (k)
Mkr (Culv) (l)
REMOVE INLET (m)
G1 DI (n)
REMOVE Culv (b)
REMOVE HW (c)
ROCK LINED DITCH (d)
TEMPORARY CONSTRUCTION EASEMENT
PLAN
SCALE: 1"=20'
"PM 14.04 CL" LINE
TCE 10.0' R/W 118.1' 58.4' R/W 53.8' TCE
91.8' Rt "PM 14.03 ALN" 100+84.9'
FL Elev 515.9'
RLD (XX LB, CLASS II, METHOD B) (CY)
LENGTH = 58.0'
WIDTH = 6.0'
HEIGHT = 2.7'
REMOVE HEADWALL (c)
REMOVE CSP Culv 24" x 61.2' (b)
G1 DI (SEE DP-XX) (n)
(H=X.XX')
TYPE 24-9 GRATE
33.3' Rt "PM 14.04 CL" 100+92.9'
FL Elev 490.8'
REMOVE INLET (m)
33.3' Rt "PM 14.04 CL" 100+92.9'
FL Elev 490.8'
62.1' L+ "PM 14.03 CL" 101+13.9'
FL Elev 484.3'
106.4' L+ "PM 14.03 CL" 101+24.5'
FL Elev 481.4'
OG
S=6.46%
S=29.85%
S=2.34%
14.4'
EP
EP
REMOVE Mkr (h)
Mkr (Culv) (i)
36" x 82.5' APC (j)
RSP (e)
(XX LB, CLASS II, METHOD B)
LENGTH = 20.0'
WIDTH = 10.0'
DEPTH = 2.0'
36" x 45' APC DD (f)
36" x 16' APC DD (g)
47.1' L+ "PM 14.04 CL" 101+10.5'
FL Elev 488.9'
REMOVE CSP Culv 24" x 152' (a)
PROFILE
DRAINAGE SYSTEM No. (11)
"PM 14.04 CL" 101+00.0
12.435° SKEW Rt
PM 14.04
DRAINAGE PLAN AND PROFILE
(LOCATION 11)
SCALE: Horiz 1"=20'
Vert 1"=20'
D-11
540
530
520
510
500
490
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
ANDRE GUIMARAES
FUNCTIONAL SUPERVISOR
HALLEY AYCOCK-RIZZO
GABRIEL ADAME
USERNAME =>
DGN FILE => 0120000135a011.dgn
UNIT 0313
PROJECT NUMBER & PHASE
0120000135
DATE PLOTTED =>
02-15-24
TIME PLOTTED =>

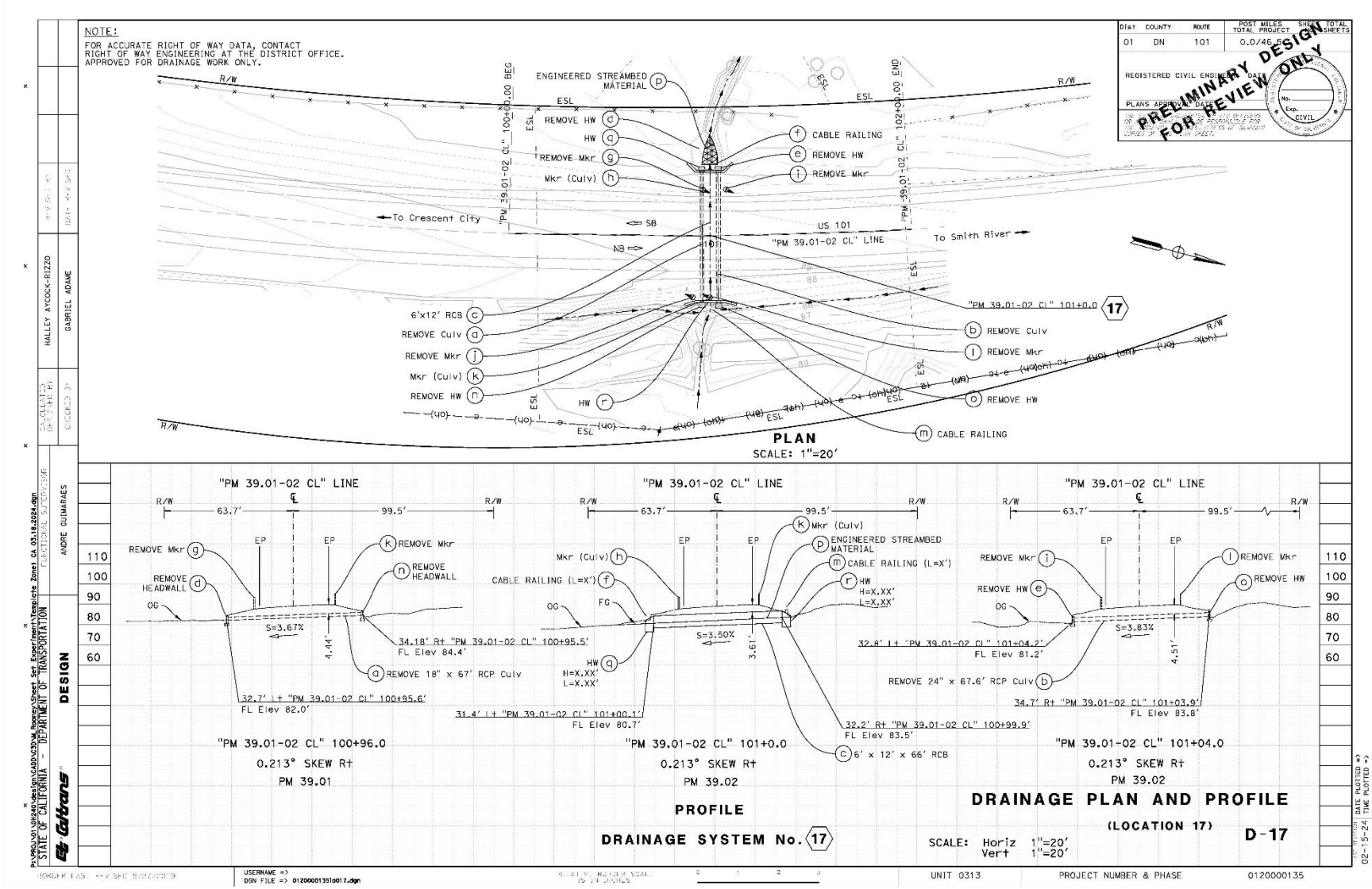

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Dist COUNTY ROUTE POST MILES TOTAL PROJECT SHEET TOTAL SHEETS
01 DN 101 0.0/46.5
PRELIMINARY DESIGN FOR REVIEW ONLY
REGISTERED CIVIL ENGINEER DATE
PLANS APPROVAL DATE
No. Exp. CIVIL
RSP (i)
(c) REMOVE Mkr
(d) Mkr (Culv)
(a) REMOVE Culv
(b) 24" APC
"PM 14.08 CL" 100+00.00 BEG
"PM 14.08 CL" 103+27.03 END
ESL
SB
US 101
"PM 14.08 CL" LINE
NB
NB
To Klamath
To Crescent City
101
102
103
R/W
REMOVE Mkr (g)
Mkr (Culv) (h)
"PM 14.08 CL" 102+26.4
12
(e) REMOVE INLET
(f) G1 DI
PLAN
SCALE: 1"=20'
"PM 14.08 CL" LINE
R/W
103.0'
77.0'
R/W
REMOVE Mkr (c)
Mkr (Culv) (d)
RSP (i)
(XX LB, CLASS II, METHOD B) (CY)
LENGTH = 14.0'
WIDTH = 6.0'
HEIGHT = 2.0'
EP
EP
(g) REMOVE Mkr
(h) Mkr (Culv)
OG
S=5.21%
5.5'
(f) G1 DI (SEE DD-XX)
(H=X.XX')
TYPE 24-9
(e) REMOVE INLET
(b) 24" x 66' APC
27.9' Rt "PM 14.08 CL" 102+26.1'
FL Elev 508.1'
37.1' Lt "PM 14.08 CL" 102+26.6'
FL Elev 504.8'
REMOVE CSP Culv 18" x 66' (a)
PROFILE
DRAINAGE SYSTEM No. 12
"PM 14.08 CL" 102+26.4
0.440° SKEW Lt
PM 14.08
DRAINAGE PLAN AND PROFILE
(LOCATION 12)
SCALE: Horiz 1"=20'
Vert 1"=20'
D-12
540
530
520
510
500
490
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
FUNCTIONAL SUPERVISOR
ANDRE GUIMARAES
HALLEY AYCOCK RIZZO
GABRIEL ADAME
USERNAME =>
DGN FILE => 0120000135to012.dgn
UNIT 0313
PROJECT NUMBER & PHASE
0120000135
DATE PLOTTED =>
02-15-24
TIME PLOTTED =>

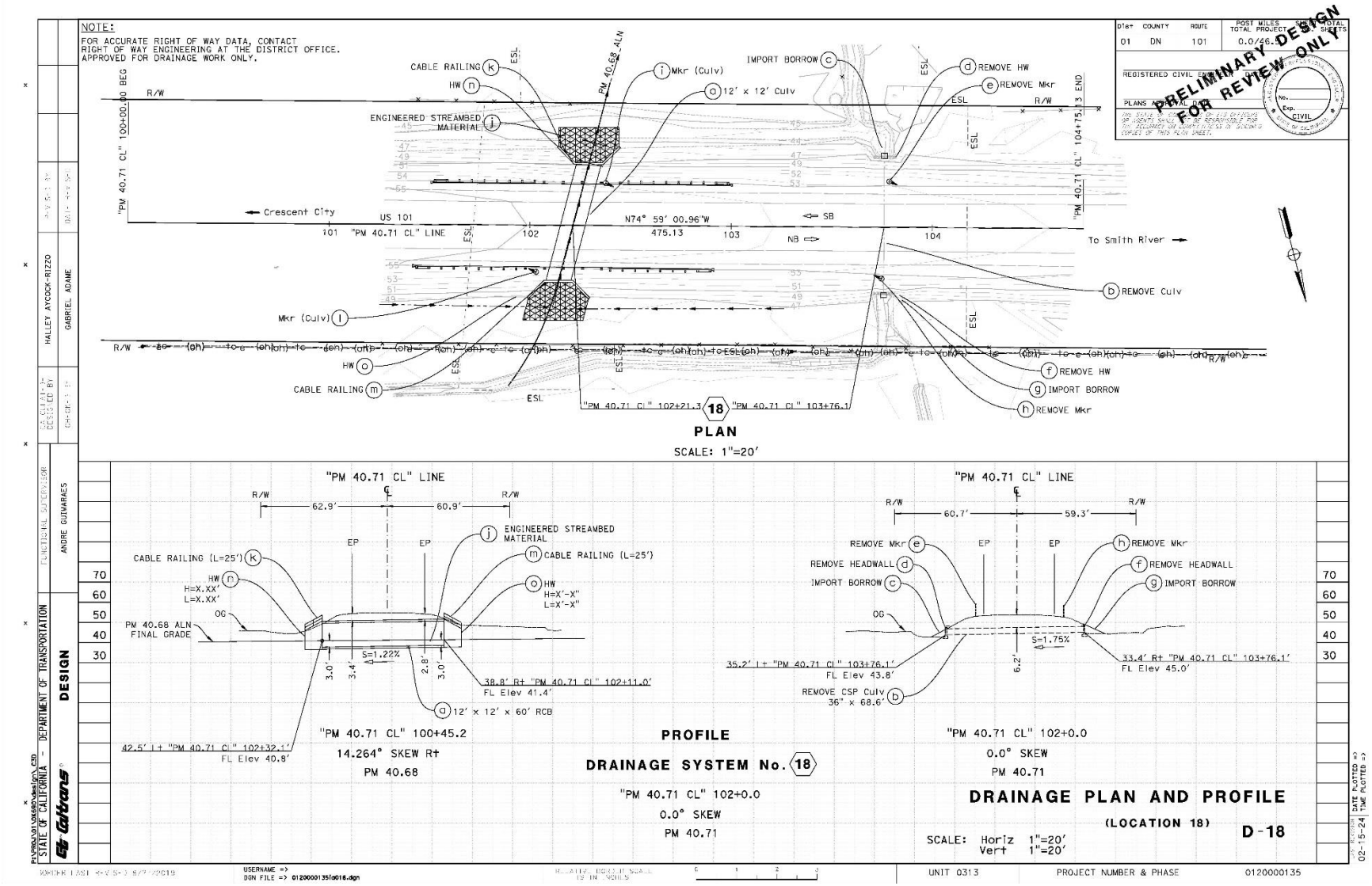

NOTE:
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CLEARWATER DIVERSION
REMOVE Culv (a)
ABANDON Culv (b)
REMOVE Mkr (j)
NATIVE ON-SITE WETLAND MATERIAL (m)
CLAY (l)
Mkr (Culv) (k)
HW (h)
CABLE RAILING (i)
TRENCHLESS 54" WSP (d)
42" APC DD (e)
42" ANCHOR ASSEMBLY (f)
REMOVE Culv (c)
RSP (g)
TEMPORARY CONSTRUCTION EASEMENT
13 "PM 19.05 ALN" 101+00.0
"PM 19.05 CL" 100+00.00 BEG
"PM 19.05 CL" 102+00.33 END
To Crescent City
To Klamath
US 101
"PM 19.05 CL" LINE
R/W
ESL
SB
NB
PLAN
SCALE: 1"=20'
PRELIMINARY DESIGN FOR REVIEW ONLY
"PM 19.05 CL" LINE
R/W 170.6' 133.5' R/W 20.0' TCE
R/W 179.8' 126.7' R/W 20.0' TCE
EP
FG
OG
REMOVE CSP Culv 24" x 20' (c)
47.3'
S=19.2%
REMOVE CSP Culv 24" x 10' (a)
ABANDON CSP Culv 24" x 197.0' (b)
78.2' L+ "PM 19.05 CL" 100+78.8' FL Elev 1186.0'
142.2' R+ "PM 19.05 CL" 101+13.5' FL Elev 1143.3'
CABLE RAILING (L=X') (i)
HW (h) H=5.9' L=X'
26.2'
62.5' L+ "PM 19.05 CL" 101+18.8' FL Elev 1191.9'
TRENCHLESS 54" x 128.4' WSP (d)
S=4.0%
59.6' R+ "PM 19.05 CL" 100+79.3' FL Elev 1186.8'
S=39.0%
EMBANKMENT (n)
42" x 68.5' APC DD (e)
113.0' R+ "PM 19.05 CL" 101+08.4' FL Elev 1152.0'
RSP (XX, CLASS II, METHOD B) LENGTH = 24.0' WIDTH = 12.0' DEPTH = 4.0'
1240 1230 1220 1210 1200 1190 1180 1170 1160 1150 1140 1130
PROFILE
DRAINAGE SYSTEM No. 13
"PM 19.05 CL" 101+0.0
18.577° SKEW Rt
PM 19.05
DRAINAGE PLAN AND PROFILE
(LOCATION 13)
D-13
SCALE: Horiz 1"=20' Vert 1"=20'
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
ANDRE QUIMARAES
HALLEY AYCOCK RIZZO
GABRIEL ADAME
USERNAME =>
DGN FILE => 0120000135\e013_dgn
UNIT 0313
PROJECT NUMBER & PHASE
0120000135
02-15-24 TIME PLOTTED =>

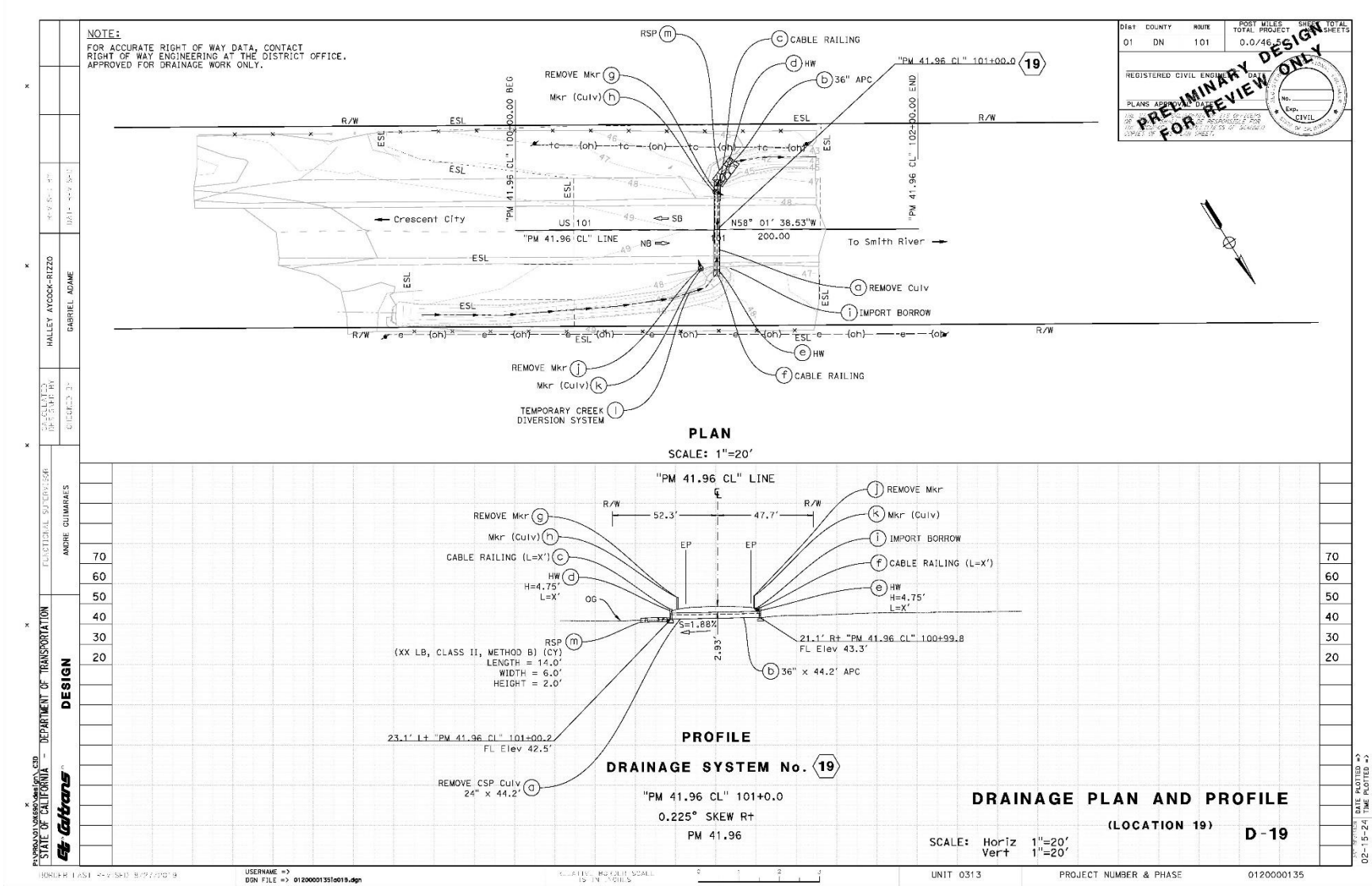

NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
APPROVED FOR DRAINAGE WORK ONLY.
Dist COUNTY ROUTE POST MILES TOTAL PROJECT SHEET TOTAL SHEETS
01 DN 101 0.0/46.5
REGISTERED CIVIL ENGINEER DATE
PLANS APPROVAL DATE
PRELIMINARY DESIGN FOR REVIEW ONLY
ESL
"PM 19.11 CL" 100+00.00 BEG
"PM 19.11 CL" 102+00.00 END
To Klamath
SB
SB
US 101
"PM 19.11 CL" LINE
NB
N19° 18' 45.40"E
55.36
To Crescent City
REMOVE Mkr (c)
Mkr (Culv) (d)
REMOVE Culv (a)
24" APC (b)
REMOVE Mkr (e)
Mkr (Culv) (f)
"PM 19.11 CL" 101+0.0 14
PLAN
SCALE: 1"=20'
"PM 19.11 CL" LINE
R/W
170.1'
131.5'
R/W
REMOVE Mkr (c)
Mkr (Culv) (d)
OG
EP
EP
REMOVE Mkr (e)
Mkr (Culv) (f)
S=19.77%
30.4' Lt "PM 19.11 CL" 101+00.6'
FL Elev 1212.8'
30.1' Rt "PM 19.11 CL" 100+99.6'
FL Elev 1200.8'
9.9'
REMOVE CSP Culv 18" x 61.7' (a)
24" x 61.7' APC (b)
1240
1230
1220
1210
1200
1190
PROFILE
DRAINAGE SYSTEM No. 14
"PM 19.11 CL" 101+0.0
1.170° SKEW Rt
PM 19.11
DRAINAGE PLAN AND PROFILE
(LOCATION 14)
D-14
SCALE: Horiz 1"=20'
Vert 1"=20'
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
FUNCTIONAL SUPERVISOR ANDRE GUIMARAES
HALLEY AYCOCK-RIZZO
GABRIEL ADAME
USERNAME =>
DGN FILE => 0120000135to014.dgn
UNIT 0313
PROJECT NUMBER & PHASE 0120000135
DATE PLOTTED => 02-15-24


NOTE:
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PRELIMINARY DESIGN FOR REVIEW ONLY
RSP (g)
(a) REMOVE Culv
(b) 30" APC
(c) REMOVE Mkr
(d) Mkr (Culv)
"PM 22.36 CL" 100+00.00 BEG
"PM 22.36 CL" 102+00.00 END
To Klamath
SB
US 101
N15° 32' 49.79"W
"PM 22.36 CL" LINE
NB
200.00
To Crescent City
REMOVE Culv (h)
REMOVE Culv (i)
"PM 22.36 CL" 101+00.0
15
(e) REMOVE Mkr
(f) Mkr (Culv)
AFES (j)
PLAN
SCALE: 1"=20'
"PM 22.36 CL" LINE
R/W
158.0'
148.2'
REMOVE Mkr (c)
Mkr (Culv) (d)
EP
EP
(e) REMOVE Mkr
(f) Mkr (Culv)
(j) 30" AFES H=X.XX'
RSP (g)
(XX LB, CLASS II, METHOD B) (CY)
LENGTH = 14.0'
WIDTH = 6.0'
HEIGHT = 2.0'
OG
S=0.44%
13.46'
38.8' Rt "PM 22.36 CL" 101+09.3'
FL Elev 502.8'
114.4' Lt "PM 22.36 CL" 100+75.0'
FL Elev 502.1'
(b) 30" x 157.2' APC
REMOVE CSP Culv 24" x 49.3' (i)
REMOVE CSP Culv 24" x 100' (a)
REMOVE CSP Culv 24" x 10' (h)
PROFILE
DRAINAGE SYSTEM No. 15
"PM 22.36 CL" 101+0.0
13.440° SKEW Lt
PM 22.36
DRAINAGE PLAN AND PROFILE
(LOCATION 15)
D-15
SCALE: Horiz 1"=20'
Vert 1"=20'
Dist COUNTY ROUTE POST MILES TOTAL PROJECT SHEET TOTAL SHEETS
01 DN 101 0.0/46.5
REGISTERED CIVIL ENGINEER DATE
PLANS APPROVAL DATE
No. Exp. CIVIL
STATE OF CALIFORNIA -- DEPARTMENT OF TRANSPORTATION
DESIGN
FUNCTIONAL SUPERVISOR
ANDRE QUINARAES
HALLEY AYCOCK-RIZZO
GABRIEL ADAME
Caltrans
USERNAME =>
DGN FILE => 0120000135la015.dgn
UNIT 0313
PROJECT NUMBER & PHASE
0120000135
DATE PLOTTED => 02-15-24
TIME PLOTTED =>


NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
APPROVED FOR DRAINAGE WORK ONLY.
PRELIMINARY DESIGN FOR REVIEW ONLY
DRAINAGE EASEMENT
TEMPORARY CONSTRUCTION EASEMENT
REMOVE HW
REMOVE Mkr
REMOVE Culv
To Crescent City
US 101
SB
NB
"PM 37.46 CL" LINE
N01° 30' 55.30"E
11817.69
To Smith River
"PM 37.46 CL" 159+80.0
PLAN
SCALE: 1"=20'
"PM 37.46 CL" LINE
TCE
DE
R/W
ETW
OG
REMOVE CBC Culv 7' x 7' x 53.2'
REMOVE RCP Culv 36" x 95.0'
REMOVE RCP Culv 36" x 98.7'
PROFILE
DRAINAGE SYSTEM No. 16
"PM 37.46 CL" 101+0.0
PM 37.46
DRAINAGE PLAN AND PROFILE
(LOCATION 16)
D-16
SCALE: Horiz 1"=20'
Vert 1"=20'
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
HALLEY AYCOCK-RIZZO
GABRIEL ADAME
ANDRE GUIMARAES
UNIT 0313
PROJECT NUMBER & PHASE
0120000135


NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE. APPROVED FOR DRAINAGE WORK ONLY.
PRELIMINARY DESIGN FOR REVIEW ONLY
PLAN
SCALE: 1"=20'
"PM 39.01-02 CL" LINE
"PM 39.01-02 CL" 100+00.00 BEG
"PM 39.01-02 CL" 102+00.00 END
US 101
To Crescent City
To Smith River
SB
NB
ESL
R/W
ENGINEERED STREAMBED MATERIAL
REMOVE HW
HW
REMOVE Mkr
Mkr (Culv)
CABLE RAILING
6'x12' RCB
REMOVE Culv
"PM 39.01-02 CL" 101+0.0
"PM 39.01-02 CL" 100+96.0
0.213° SKEW Rt
PM 39.01
"PM 39.01-02 CL" 101+0.0
0.213° SKEW Rt
PM 39.02
"PM 39.01-02 CL" 101+04.0
0.213° SKEW Rt
PM 39.02
PROFILE
DRAINAGE SYSTEM No. 17
DRAINAGE PLAN AND PROFILE
(LOCATION 17)
D-17
SCALE: Horiz 1"=20'
Vert 1"=20'
DESIGN
DEPARTMENT OF TRANSPORTATION
STATE OF CALIFORNIA
UNIT 0313
PROJECT NUMBER & PHASE
0120000135


NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
APPROVED FOR DRAINAGE WORK ONLY.
PRELIMINARY DESIGN FOR REVIEW ONLY
PLAN
SCALE: 1"=20'
PROFILE
DRAINAGE SYSTEM No. 18
"PM 40.71 CL" 102+0.0
0.0° SKEW
PM 40.71
"PM 40.71 CL" 100+45.2
14.264° SKEW Rt
PM 40.68
"PM 40.71 CL" 102+0.0
0.0° SKEW
PM 40.71
DRAINAGE PLAN AND PROFILE
(LOCATION 18)
SCALE: Horiz 1"=20'
Vert 1"=20'
D-18
DESIGN
DEPARTMENT OF TRANSPORTATION
STATE OF CALIFORNIA
UNIT 0313
PROJECT NUMBER & PHASE
0120000135


NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE. APPROVED FOR DRAINAGE WORK ONLY.
Dist COUNTY ROUTE POST MILES TOTAL PROJECT SHEET TOTAL SHEETS
01 DN 101 0.0/46.5
PRELIMINARY DESIGN FOR REVIEW ONLY
REGISTERED CIVIL ENGINEER DATE
PLANS APPROVAL DATE
"PM 41.96 CL" 101+00.0 19
"PM 41.96 CL" 100+00.00 BEG
"PM 41.96 CL" 102+00.00 END
RSP m
CABLE RAILING c
HW d
36" APC b
REMOVE Mkr g
Mkr (Culv) h
R/W
ESL
Crescent City
US 101
SB
NB
"PM 41.96 CL" LINE
N58° 01' 38.53"W
200.00
To Smith River
REMOVE Culv a
IMPORT BORROW i
HW e
CABLE RAILING f
REMOVE Mkr j
Mkr (Culv) k
TEMPORARY CREEK DIVERSION SYSTEM l
PLAN
SCALE: 1"=20'
"PM 41.96 CL" LINE
52.3'
47.7'
EP
OG
S=1.88%
2.93'
REMOVE Mkr g
Mkr (Culv) h
CABLE RAILING (L=X') c
HW d
H=4.75'
L=X'
RSP m
(XX LB, CLASS II, METHOD B) (CY)
LENGTH = 14.0'
WIDTH = 6.0'
HEIGHT = 2.0'
23.1' Lt "PM 41.96 CL" 101+00.2
FL Elev 42.5'
REMOVE CSP Culv
24" x 44.2'
21.1' Rt "PM 41.96 CL" 100+99.8
FL Elev 43.3'
36" x 44.2' APC
REMOVE Mkr j
Mkr (Culv) k
IMPORT BORROW i
CABLE RAILING (L=X') f
HW e
H=4.75'
L=X'
PROFILE
DRAINAGE SYSTEM No. 19
"PM 41.96 CL" 101+0.0
0.225° SKEW Rt
PM 41.96
DRAINAGE PLAN AND PROFILE
(LOCATION 19)
D-19
SCALE: Horiz 1"=20'
Vert 1"=20'
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
HALLEY AYCOCK-RIZZO
GABRIEL ADAME
ANDRE GUIMARAES
USERNAME =>
DGN FILE => 0120000135to019.dgn
UNIT 0313
PROJECT NUMBER & PHASE
0120000135
DATE PLOTTED => 02-15-24

Appendix B. Title VI–Non-Discrimination Policy Statement



CALIFORNIA STATE TRANSPORTATION AGENCY GAVIN NEWSOM, GOVERNOR

California Department of Transportation

OFFICE OF THE DIRECTOR
P.O. BOX 942873, MS–49 | SACRAMENTO, CA 94273–0001
(916) 654-6130 | FAX (916) 653-5776 TTY 711
www.dot.ca.gov

September 2025

TITLE VI/NON-DISCRIMINATION POLICY STATEMENT

It is the policy of the California Department of Transportation (Caltrans), in accordance with Title VI of the Civil Rights Act of 1964 and the assurances set forth in the Caltrans' Title VI Program Plan, to ensure that no person in the United States shall on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance. Related non-discrimination authorities, remedies, and state law further those protections, including sex, disability, religion, sexual orientation, age, low income, and Limited English Proficiency (LEP).

Caltrans is committed to complying with 23 C.F.R. Part 200, 49 C.F.R. Part 21, 49 C.F.R. Part 303, and the Federal Transit Administration Circular 4702.1B. Caltrans will make every effort to ensure nondiscrimination in all of its services, programs, and activities, whether they are federally funded or not, and that services and benefits are fairly distributed to all people, regardless of race, color, or national origin (including LEP). In addition, Caltrans will facilitate meaningful participation in the transportation planning process in a non-discriminatory manner.

The overall responsibility for this policy is assigned to the Caltrans Director. The Caltrans Title VI Coordinator is assigned to the Caltrans Office of Civil Rights Deputy Director, who then delegates sufficient responsibility and authority to the Office of Civil Rights' managers, including the Title VI Branch Manager, to effectively implement the Caltrans Title VI Program. Individuals with questions or requiring additional information relating to the policy or the implementation of the Caltrans Title VI Program should contact the Title VI Branch Manager at title.vi@dot.ca.gov or at (916) 639-6392, or visit the following web page: https://dot.ca.gov/programs/civil-rights/title-vi.

Dina El-Tawansy (Sep 12, 2025 16:52:12 PDT)
DINA A. EL-TAWANSY
Director

"Improving lives and communities through transportation."



Appendix C. CDFW-CNDDB, CNPS, NMFS, and USFWS Species Lists



Selected Elements by Element Code

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Crescent City (4112472) OR Gasquet (4112378) OR Childs Hill (4112461) OR Requa (4112451) OR Fern Canyon (4112441) OR Mt. Emily (4212412) OR Smith River (4112482) OR Cant Hook Mtn. (4112368) OR Klamath Glen (4112358) OR Ah Pah Ridge (4112348) OR Fourth of July Creek (4212411) OR High Divide (4112481))

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
AAAAD12050	***Plethodon elongatus*** Del Norte salamander	None	None	G4	S3	WL
AAAAJ01020	***Rhyacotriton variegatus*** southern torrent salamander	None	None	G3?	S2S3	SSC
AAABA01010	***Ascaphus truei*** Pacific tailed frog	None	None	G4	S3S4	SSC
AAABH01021	***Rana aurora*** northern red-legged frog	None	None	G4	S3	SSC
AAABH01051	***Rana boylii pop. 1*** foothill yellow-legged frog - north coast DPS	None	None	G3T4	S4	SSC
ABNDC04010	***Hydrobates furcatus*** fork-tailed storm-petrel	None	None	G5	S1	SSC
ABNFD01020	***Nannopterum auritum*** double-crested cormorant	None	None	G5	S4	WL
ABNGA04010	***Ardea herodias*** great blue heron	None	None	G5	S4	
ABNGA04040	***Ardea alba*** great egret	None	None	G5	S4	
ABNGA06030	***Egretta thula*** snowy egret	None	None	G5	S4	
ABNGA11010	***Nycticorax nycticorax*** black-crowned night heron	None	None	G5	S4	
ABNJB05035	***Branta hutchinsii leucopareia*** cackling (=Aleutian Canada) goose	Delisted	None	G5T3	S3	WL
ABNKC01010	***Pandion haliaetus*** osprey	None	None	G5	S4	WL
ABNKC06010	***Elanus leucurus*** white-tailed kite	None	None	G5	S3S4	FP
ABNKC10010	***Haliaeetus leucocephalus*** bald eagle	Delisted	Endangered	G5	S3	FP
ABNKC11011	***Circus hudsonius*** northern harrier	None	None	G5	S3	SSC
ABNKD06071	***Falco peregrinus anatum*** American peregrine falcon	Delisted	Delisted	G4T4	S3S4	
ABNLC11010	***Bonasa umbellus*** ruffed grouse	None	None	G5	S3S4	WL

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
ABNME01010	***Coturnicops noveboracensis*** yellow rail	None	None	G4	S2	SSC
ABNNB03031	***Anarhynchus nivosus nivosus*** western snowy plover	Threatened	None	G3T3	S3	SSC
ABNNN06010	***Brachyramphus marmoratus*** marbled murrelet	Threatened	Endangered	G3	S2	
ABNNN11010	***Cerorhinca monocerata*** rhinoceros auklet	None	None	G5	S3	WL
ABNNN12010	***Fratercula cirrhata*** tufted puffin	None	None	G5	S1S2	SSC
ABPAE33041	***Empidonax traillii brewsteri*** little willow flycatcher	None	Endangered	G5T3T4	S3	
ABPAU08010	***Riparia riparia*** bank swallow	None	Threatened	G5	S3	
AFC4E02153	***Cottus klamathensis polyporus*** Lower Klamath marbled sculpin	None	None	G4T2T4	S2S4	SSC
AFCAA01032	***Acipenser medirostris pop. 2*** green sturgeon - northern DPS	None	None	G2T1	S1	SSC
AFCHA0208A	***Oncorhynchus clarkii*** coast cutthroat trout	None	None	G4	S3	SSC
AFCHA0213Q	***Oncorhynchus mykiss irideus pop. 49*** steelhead - northern California DPS winter-run	Threatened	None	G5T3Q	S3	SSC
AFCHB03010	***Spirinchus thaleichthys*** longfin smelt	None	Threatened	G5	S1	
AFCHB04010	***Thaleichthys pacificus*** eulachon	Threatened	None	G4	S1	SSC
AFCQN04010	***Eucyclogobius newberryi*** tidewater goby	Endangered	None	G3	S3	SSC
AMACC01020	***Myotis yumanensis*** Yuma myotis	None	None	G5	S4	
AMACC01070	***Myotis evotis*** long-eared myotis	None	None	G5	S3	
AMACC01090	***Myotis thysanodes*** fringed myotis	None	None	G4	S3	
AMACC02010	***Lasionycteris noctivagans*** silver-haired bat	None	None	G4	S3S4	
AMACC08010	***Corynorhinus townsendii*** Townsend's big-eared bat	None	None	G4	S2	SSC
AMAFA01017	***Aplodontia rufa humboldtiana*** Humboldt mountain beaver	None	None	G5TNR	SNR	
AMAFF23030	***Arborimus pomo*** Sonoma tree vole	None	None	G3	S3	SSC

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
AMAFJ01010	***Erethizon dorsatum*** North American porcupine	None	None	G5	S3	
AMAJC03010	***Eumetopias jubatus*** Steller sea lion	Delisted	None	G3	S2	
AMAJF01017	***Martes caurina humboldtensis*** Humboldt marten	Threatened	Endangered	G4G5T1	S1	SSC
AMAJF01020	***Pekania pennanti*** Fisher	None	None	G5	S2S3	SSC
ARAAD02031	***Actinemys marmorata*** northwestern pond turtle	Proposed Threatened	None	G2	SNR	SSC
CTT51120CA	***Darlingtonia Seep*** Darlingtonia Seep	None	None	G4	S3.2	
CTT52110CA	***Northern Coastal Salt Marsh*** Northern Coastal Salt Marsh	None	None	G3	S3.2	
CTT52200CA	***Coastal Brackish Marsh*** Coastal Brackish Marsh	None	None	G2	S2.1	
CTT52410CA	***Coastal and Valley Freshwater Marsh*** Coastal and Valley Freshwater Marsh	None	None	G3	S2.1	
IICOL58010	***Atractelmis wawona*** Wawona riffle beetle	None	None	G3	S1S2	
IIHYM24252	***Bombus occidentalis*** western bumble bee	None	Candidate Endangered	G3	S1	
IIHYM24380	***Bombus caliginosus*** obscure bumble bee	None	None	G2G3	S1S2	
IILEP66030	***Polites mardon*** mardon skipper	None	None	G2	S1	
IILEPJ6087	***Speyeria zerene hippolyta*** Oregon silverspot butterfly	Threatened	None	G5T1	S1	
IILEPN6035	***Coenonympha tullia yontockett*** Yontocket satyr	None	None	G5T1T2	S1S2	
IITRI15020	***Limnephilus atercus*** Fort Dick limnephilus caddisfly	None	None	G3G4	S1S2	
IMBIV19010	***Gonidea angulata*** western ridged mussel	None	None	G3	S2	
IMGAS36130	***Ancotrema voyanum*** hooded lancetooth	None	None	G1G2	S1S2	
IMGASC7032	***Monadenia fidelis pronotis*** rocky coast Pacific sideband	None	None	G4G5T1	S1	
IMGASJ9030	***Pomatiopsis chacei*** marsh walker	None	None	G1	S2	
IMGASK4180	***Juga chacei*** Chace juga	None	None	G1	S1	

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
NBMUS2E010	***Discelium nudum*** naked flag moss	None	None	G4G5	S1	2B.2
NBMUS2W0U0	***Fissidens pauperculus*** minute pocket moss	None	None	G3?	S2	1B.2
NBMUS7S010	***Triquetrella californica*** coastal triquetrella	None	None	G2	S2	1B.2
NLLEC2Q010	***Platismatia lacunosa*** crinkled rag lichen	None	None	G4	S2?	2B.3
NLLEC3S340	***Ramalina thrausta*** angel's hair lichen	None	None	G5?	S2S3	2B.1
NLLEC5P420	***Usnea longissima*** Methuselah's beard lichen	None	None	G5	S4	4.2
NLT0005640	***Calicium adspersum*** spiral-spored gilded-head pin lichen	None	None	G3G4	S1	2B.2
NLT0042560	***Sulcaria spiralifera*** twisted horsehair lichen	None	None	G3G4	S2	1B.2
PDAPI1B140	***Lomatium martindalei*** Coast Range lomatium	None	None	G5	S2	2B.3
PDAST8H0H1	***Packera bolanderi var. bolanderi*** seacoast ragwort	None	None	G4T4	S2S3	2B.2
PDAST8H1L0	***Packera hesperia*** western ragwort	None	None	G3	S1	2B.2
PDASTDT0F4	***Pyrrocoma racemosa var. congesta*** Del Norte pyrrocoma	None	None	G5T4	S2	2B.3
PDASTE5011	***Hesperevax sparsiflora var. brevifolia*** short-leaved evax	None	None	G4T3	S3	1B.2
PDBRA06010	***Arabis aculeolata*** Waldo rockcress	None	None	G4	S2	2B.2
PDBRA060Z0	***Boechera koehleri*** Koehler's stipitate rockcress	None	None	G3G4	S3	1B.3
PDBRA06150	***Arabis mcdonaldiana*** McDonald's rockcress	Endangered	Endangered	G3	S3	1B.1
PDBRA0K010	***Cardamine angulata*** seaside bittercress	None	None	G4G5	S3	2B.1
PDBRA0K0R3	***Cardamine nuttallii var. gemmata*** yellow-tubered toothwort	None	None	G5T3Q	S2	3.3
PDBRA0S020	***Cochlearia groenlandica*** Greenland cochlearia	None	None	G4	S1	2B.3
PDBRA160E3	***Erysimum concinnum*** bluff wallflower	None	None	G3	S2	1B.2
PDBRA2G0N0	***Streptanthus howellii*** Howell's jewelflower	None	None	G2G3	S2	1B.2

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
PDCAR0G0F0	***Sabulina howellii*** Howell's sandwort	None	None	G3	S3	1B.3
PDCAR0U1MC	***Silene scouleri ssp. scouleri*** Scouler's catchfly	None	None	G5T4T5	S2S3	2B.2
PDCAR0U2B0	***Silene serpentinicola*** serpentine catchfly	None	None	G3	S3	1B.2
PDCAR0U2M0	***Silene hookeri*** Hooker's catchfly	None	None	G4	S2	2B.2
PDCRA0A200	***Sedum citrinum*** Blue Creek stonecrop	None	None	G2	S2	1B.2
PDCRA0A250	***Sedum patens*** Smith River stonecrop	None	None	G2	S2	1B.2
PDEMP03020	***Empetrum nigrum*** black crowberry	None	None	G5	S1?	2B.2
PDERI180Y0	***Vaccinium scoparium*** little-leaved huckleberry	None	None	G5	S3	2B.2
PDFAB250C0	***Lathyrus japonicus*** seaside pea	None	None	G5	S2	2B.1
PDFAB250P0	***Lathyrus palustris*** marsh pea	None	None	G5	S2	2B.2
PDFAB3Z0D0	***Thermopsis robusta*** robust false lupine	None	None	G2	S2	1B.2
PDGEN060S0	***Gentiana setigera*** Mendocino gentian	None	None	G2	S2	1B.2
PDHYD0C070	***Phacelia argentea*** sand dune phacelia	Threatened	None	G2	S1	1B.1
PDHYD0E030	***Romanzoffia tracyi*** Tracy's romanzoffia	None	None	G4	S2	2B.3
PDLNT01040	***Pinguicula macroceras*** horned butterwort	None	None	G4	S2	2B.2
PDMAL0K040	***Iliamna latibracteata*** California globe mallow	None	None	G3	S2	1B.2
PDMAL110E0	***Sidalcea malachroides*** maple-leaved checkerbloom	None	None	G3	S3	4.2
PDMAL110F9	***Sidalcea malviflora ssp. patula*** Siskiyou checkerbloom	None	None	G4G5T2	S2	1B.2
PDMAL110K9	***Sidalcea oregana ssp. eximia*** coast checkerbloom	None	None	G5T1	S1	1B.2
PDMON03030	***Monotropa uniflora*** ghost-pipe	None	None	G5	S2	2B.2
PDNYC010N4	***Abronia umbellata var. breviflora*** pink sand-verbena	None	None	G4G5T2	S2	1B.1

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
PDONA0C1K0	***Oenothera wolfii*** Wolf's evening-primrose	None	None	G2	S1	1B.1
PDORO01010	***Kopsiopsis hookeri*** small groundcone	None	None	G4?	S1S2	2B.3
PDPGN08498	***Eriogonum nudum var. paralinum*** Del Norte buckwheat	None	None	G5T2	S1	2B.2
PDPGN084Q0	***Eriogonum pendulum*** Waldo wild buckwheat	None	None	G4	S2S3	2B.2
PDPLM040B6	***Gilia capitata ssp. pacifica*** Pacific gilia	None	None	G5T3	S3	1B.2
PDPLM04130	***Gilia millefoliata*** dark-eyed gilia	None	None	G2	S2	1B.2
PDPLM0E050	***Polemonium carneum*** Oregon polemonium	None	None	G3G4	S2	2B.2
PDPOR040B0	***Lewisia oppositifolia*** opposite-leaved lewisia	None	None	G3	S2	2B.2
PDPOR05070	***Montia howellii*** Howell's montia	None	None	G3G4	S2	2B.2
PDPRI0A020	***Lysimachia europaea*** arctic starflower	None	None	G5	S1	2B.2
PDPYR02010	***Moneses uniflora*** woodnymph	None	None	G5	S2	2B.2
PDRAN0A020	***Coptis laciniata*** Oregon goldthread	None	None	G4?	S3?	4.2
PDROS1J1V1	***Rosa gymnocarpa var. serpentina*** Gasquet rose	None	None	G5T3T4	S2	1B.3
PDROS1L060	***Sanguisorba officinalis*** great burnet	None	None	G5?	S2	2B.2
PDSAX0N020	***Mitellastra caulescens*** leafy-stemmed mitrewort	None	None	G5	S4	4.2
PDSCR0D012	***Castilleja litoralis*** Oregon coast paintbrush	None	None	G3	S2S3	2B.2
PDSCR0D213	***Castilleja elata*** Siskiyou paintbrush	None	None	G3	S2S3	2B.2
PDVIO040Y2	***Viola primulifolia ssp. occidentalis*** western white bog violet	None	None	G5T2	S2	1B.2
PDVIO04100	***Viola langsdorffii*** Langsdorf's violet	None	None	G4G5	S1	2B.1
PDVIO041G0	***Viola palustris*** alpine marsh violet	None	None	G5	S1S2	2B.2
PMALI040Q0	***Sagittaria sanfordii*** Sanford's arrowhead	None	None	G3	S3	1B.2

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
PMCYP030X0	***Carex arcta*** northern clustered sedge	None	None	G5	S1	2B.2
PMCYP037A7	***Carex lenticularis var. limnophila*** lagoon sedge	None	None	G5T5	S1	2B.2
PMCYP037E0	***Carex leptalea*** bristle-stalked sedge	None	None	G5	S1	2B.2
PMCYP037Y0	***Carex lyngbyei*** Lyngbye's sedge	None	None	G5	S3	2B.2
PMCYP03B20	***Carex praticola*** northern meadow sedge	None	None	G5	S2	2B.2
PMCYP03EM5	***Carex viridula ssp. viridula*** green yellow sedge	None	None	G5T5	S2	2B.3
PMCYP03KM0	***Carex serpenticola*** serpentine sedge	None	None	G4	S3	2B.3
PMCYP0N010	***Rhynchospora alba*** white beaked-rush	None	None	G5	S2	2B.2
PMLIL0R014	***Prosartes parvifolia*** Siskiyou bells	None	None	G2	S2	1B.2
PMLIL0U080	***Erythronium howellii*** Howell's fawn lily	None	None	G3G4	S2	1B.3
PMLIL0U0C0	***Erythronium oregonum*** giant fawn lily	None	None	G5	S3?	2B.2
PMLIL0U0F0	***Erythronium revolutum*** coast fawn lily	None	None	G4G5	S3	2B.2
PMLIL1A0G0	***Lilium occidentale*** western lily	Endangered	Endangered	G1G2	S1	1B.1
PMORC1X050	***Piperia candida*** white-flowered rein orchid	None	None	G3?	S3	1B.2
PMPOA17070	***Calamagrostis crassiglumis*** Thurber's reed grass	None	None	G5Q	S2	2B.1
PMPOA170C0	***Calamagrostis foliosa*** leafy reed grass	None	Rare	G3	S3	4.2
PMPOA35041	***Anthoxanthum nitens ssp. nitens*** vanilla-grass	None	None	G5T5	S2	2B.3
PMPOT030B1	***Potamogeton foliosus ssp. fibrillosus*** fibrous pondweed	None	None	G5T2T3	S1S2	2B.3

Record Count: 141

CALIFORNIA NATIVE PLANT SOCIETY

CNPS Rare Plant Inventory

Search Results

136 matches found. Click on scientific name for details

Search Criteria: , 9-Quad include [**4112462:4112368:4112472:4112378:4112471:4112451:4112358:4112461:4112348**]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED	PHOTO
Abronia umbellata var. *breviflora*	pink sand-verbena	Nyctaginaceae	annual herb	Jun-Oct	None	None	G4G5T2	S2	1B.1		1988-01-01	 ©2021 Scot Loring
Angelica lucida	sea-watch	Apiaceae	perennial herb	Apr-Sep	None	None	G5	S3	4.2		2001-01-01	 © 2022 Stillwater Sciences
Antennaria suffrutescens	evergreen everlasting	Asteraceae	perennial stoloniferous herb	Jan-Jul	None	None	G4	S3	4.3		1974-01-01	 ©1995 Saint Mary's College of California
Anthoxanthum nitens ssp. *nitens*	vanilla-grass	Poaceae	perennial rhizomatous herb	Apr-Jul	None	None	G5T5	S2	2B.3		1994-01-01	 ©2013 Kirsten Bovee
Arabis mcdonaldiana	McDonald's rockcress	Brassicaceae	perennial herb	May-Jul	FE	CE	G3	S3	1B.1		1974-01-01	 © 2003 Norman Jensen

Arctostaphylos hispidula	Howell's manzanita	Ericaceae	perennial evergreen shrub	Mar-Apr	None	None	G4	S3	4.2		1974-01-01	 © 2006 Steve Matson
Arctostaphylos nortensis	Del Norte manzanita	Ericaceae	perennial evergreen shrub	Feb	None	None	G2	S2	4.3	Yes	1994-01-01	 ©2017 Steve Matson
Arnica cernua	serpentine arnica	Asteraceae	perennial rhizomatous herb	Apr-Jul	None	None	G5	S4	4.3		1974-01-01	 © 2021 Scot Loring
Arnica spathulata	Klamath arnica	Asteraceae	perennial rhizomatous herb	May-Aug	None	None	G3G4	S3	4.3		1974-01-01	 ©2007 Keir Morse
Asplenium trichomanes ssp. *trichomanes*	maidenhair spleenwort	Aspleniaceae	perennial rhizomatous herb	May-Jul	None	None	G5T5	S1	2B.1		1984-01-01	 ©2012 Dana York
Boechera koehleri	Koehler's stipitate rockcress	Brassicaceae	perennial herb	(Mar)Apr-Jul	None	None	G3G4	S3	1B.3		1988-01-01	 ©2019 Dana York
Calamagrostis crassiglumis	Thurber's reed grass	Poaceae	perennial rhizomatous herb	May-Aug	None	None	G5Q	S2	2B.1		1980-01-01	No Photo Available
Calamagrostis foliosa	leafy reed grass	Poaceae	perennial herb	May-Sep	None	CR	G3	S3	4.2	Yes	1980-01-01	 ©2011 Zoya Akulova
Calicium adspersum	spiral-spored gilded-head pin lichen	Caliciaceae	crustose lichen (epiphytic)		None	None	G3G4	S1	2B.2		2014-03-01	 © 2014 Eric B. Peterson
Callitropsis nootkatensis	Alaska cedar	Cupressaceae	perennial evergreen tree		None	None	G4G5	S3	4.3		1980-01-01	 © 2021 Scot Loring

Calystegia atriplicifolia ssp. *buttensis*	Butte County morning-glory	Convolvulaceae	perennial rhizomatous herb	May-Jul	None	None	G5T3	S3	4.2	Yes	1984-01-01	 ©2018 Sierra Pacific Industries
Cardamine angulata	seaside bittercress	Brassicaceae	perennial herb	(Jan)Mar-Jul	None	None	G4G5	S3	2B.2		2012-04-10	 © 2021 Scot Loring
Cardamine nuttallii var. *gemmata*	yellow-tubered toothwort	Brassicaceae	perennial rhizomatous herb	Apr-May(Jun)	None	None	G5T3Q	S2	3.3		1974-01-01	 ©2004 Norman Jensen
Carex arcta	northern clustered sedge	Cyperaceae	perennial herb	Jun-Sep	None	None	G5	S1	2B.2		2001-01-01	 © 2006 Dean Wm. Taylor
Carex lenticularis var. *limnophila*	lagoon sedge	Cyperaceae	perennial herb	Jun-Aug	None	None	G5T5	S1	2B.2		2005-01-01	Photo of Carex lenticularis var. limnophila ©2003 Steve Matson
Carex leptalea	bristle-stalked sedge	Cyperaceae	perennial rhizomatous herb	Mar-Jul	None	None	G5	S1	2B.2		1994-01-01	Photo of Carex leptalea © 2003 Steve Matson
Carex lyngbyei	Lyngbye's sedge	Cyperaceae	perennial rhizomatous herb	Apr-Aug	None	None	G5	S3	2B.2		2001-01-01	Photo of Carex lyngbyei ©2017 Steve Matson
Carex praticola	northern meadow sedge	Cyperaceae	perennial herb	May-Jul	None	None	G5	S2	2B.2		1984-01-01	 ©2013 Scot Loring

Carex scabriuscula	Siskiyou sedge	Cyperaceae	perennial rhizomatous herb	May-Jul	None	None	G3G4	S4	4.3	1980-01-01	 ©2009 Julie Kierstead Nelson
Carex serpenticola	serpentine sedge	Cyperaceae	perennial rhizomatous herb	Mar-May	None	None	G4	S3	2B.3	2001-01-01	Photo of Carex serpenticola ©2005 Norman Jensen
Carex viridula ssp. *viridula*	green yellow sedge	Cyperaceae	perennial herb	(Jun)Jul-Sep(Nov)	None	None	G5T5	S2	2B.3	2001-01-01	Photo of Carex viridula ssp. viridula © 2015 Dana York
Cascadia nuttallii	Nuttall's saxifrage	Saxifragaceae	perennial rhizomatous herb	May	None	None	G4?	S1	2B.1	1988-01-01	 © 2021 Scot Loring
Castilleja ambigua var. *ambigua*	johnny-nip	Orobanchaceae	annual herb (hemiparasitic)	Mar-Aug	None	None	G5T4	S3S4	4.2	2009-02-04	 ©2011 Dylan Neubauer
Castilleja brevilobata	short-lobed paintbrush	Orobanchaceae	perennial herb (hemiparasitic)	Apr-Jul	None	None	G4	S3	4.2	1974-01-01	 © 2021 Scot Loring
Castilleja elata	Siskiyou paintbrush	Orobanchaceae	perennial herb (hemiparasitic)	May-Aug	None	None	G3	S2S3	2B.2	1980-01-01	 © 2021 Scot Loring
Castilleja litoralis	Oregon coast paintbrush	Orobanchaceae	perennial herb (hemiparasitic)	Jun	None	None	G3	S2S3	2B.2	2001-01-01	 ©2010 Dana York

Chrysosplenium glechomifolium	Pacific golden saxifrage	Saxifragaceae	perennial herb	Feb-Jun	None	None	G5?	S3	4.3	2015-10-15  © 2021 Scot Loring
Cochlearia groenlandica	Greenland cochlearia	Brassicaceae	annual herb	May-Jul	None	None	G4	S1	2B.3	1984-01-01 No Photo Available
Coptis laciniata	Oregon goldthread	Ranunculaceae	perennial rhizomatous herb	(Feb)Mar-May(Sep-Nov)	None	None	G4?	S3?	4.2	2006-10-16  © 2021 Scot Loring
Cypripedium californicum	California lady's-slipper	Orchidaceae	perennial rhizomatous herb	Apr-Aug(Sep)	None	None	G3	S4	4.2	1980-01-01  © 2012 Barry Rice
Cypripedium montanum	mountain lady's-slipper	Orchidaceae	perennial rhizomatous herb	Mar-Aug	None	None	G4G5	S4	4.2	1980-01-01  ©2021 Scot Loring
Darlingtonia californica	California pitcherplant	Sarraceniaceae	perennial rhizomatous herb (carnivorous)	Apr-Aug	None	None	G4	S4	4.2	1980-01-01  © 2021 Scot Loring
Dicentra formosa ssp. *oregana*	Oregon bleeding heart	Papaveraceae	perennial herb	Apr-May	None	None	G5T4	S3	4.2	1974-01-01  ©2008 Keir Morse
Discelium nudum	naked flag moss	Disceliaceae	ephemeral moss		None	None	G4G5	S1	2B.2	2001-01-01 No Photo Available
Doellingeria glabrata	Siskiyou aster	Asteraceae	perennial herb	Jun-Sep	None	None	G4	S3	4.3	2018-08-28  ©2018 Dana York
Downingia willamettensis	Cascade downingia	Campanulaceae	annual herb	Jun-Jul(Sep)	None	None	G4	S2	2B.2	2018-09-20 No Photo Available

Empetrum nigrum	black crowberry	Empetraceae	perennial evergreen shrub	Apr-Jun	None	None	G5	S1?	2B.2	1974-01-01	 ©2015 Dana York
Epilobium rigidum	Siskiyou Mountains willowherb	Onagraceae	perennial herb	Jul-Aug	None	None	G3G4	S3	4.3	1974-01-01	 © 2021 Scot Loring
Erigeron cervinus	Siskiyou daisy	Asteraceae	perennial rhizomatous herb	Jun-Aug	None	None	G4	S4	4.3	1974-01-01	 ©2015 John Doyen
Eriogonum nudum var. *paralinum*	Del Norte buckwheat	Polygonaceae	perennial herb	Jun-Sep	None	None	G5T2	S1	2B.2	1994-01-01	No Photo Available
Eriogonum pendulum	Waldo wild buckwheat	Polygonaceae	perennial herb	Aug-Sep	None	None	G4	S2S3	2B.2	1974-01-01	 © 2021 Scot Loring
Eriogonum ternatum	ternate buckwheat	Polygonaceae	perennial herb	Jun-Aug	None	None	G4	S4	4.3	1974-01-01	 ©2017 Dana York
Erysimum concinnum	bluff wallflower	Brassicaceae	annual/perennial herb	Feb-Jul	None	None	G3	S2	1B.2	2012-12-03	 ©2020 John Doyen
Erythronium citrinum var. *citrinum*	lemon-colored fawn lily	Liliaceae	perennial bulbiferous herb	Mar-May	None	None	G4T4	S3	4.3	1974-01-01	 ©2008 Keir Morse
Erythronium hendersonii	Henderson's fawn lily	Liliaceae	perennial bulbiferous herb	Apr-Jul	None	None	G4	S2	2B.3	1974-01-01	 © 2021 Scot Loring

Erythronium howellii	Howell's fawn lily	Liliaceae	perennial bulbiferous herb	Apr-May	None	None	G3G4	S2	1B.3	1974-01-01	 © 2021 Scot Loring
Erythronium oregonum	giant fawn lily	Liliaceae	perennial herb	Mar-Jun(Jul)	None	None	G5	S3?	2B.2	2007-07-23	 ©2021 Scot Loring
Erythronium revolutum	coast fawn lily	Liliaceae	perennial bulbiferous herb	Mar-Jul(Aug)	None	None	G4G5	S3	2B.2	2001-01-01	 ©2007 Steve Matson
Fissidens pauperculus	minute pocket moss	Fissidentaceae	moss		None	None	G3?	S2	1B.2	2001-01-01	 ©2021 Scot Loring
Gentiana setigera	Mendocino gentian	Gentianaceae	perennial herb	(Apr-Jul)Aug-Sep	None	None	G2	S2	1B.2	1980-01-01	 ©2008 Keir Morse
Gilia capitata ssp. *pacifica*	Pacific gilia	Polemoniaceae	annual herb	Apr-Aug	None	None	G5T3	S3	1B.2	2001-01-01	Photo of Gilia capitata ssp. pacifica © 2016 Steve Matson
Gilia millefoliata	dark-eyed gilia	Polemoniaceae	annual herb	Apr-Jul	None	None	G2	S2	1B.2	2001-01-01	Photo of Gilia millefoliata © 2017 John Doyen
Glehnia littoralis ssp. *leiocarpa*	American glehnia	Apiaceae	perennial herb	May-Aug	None	None	G5T5	S2S3	4.2	2001-01-01	Photo of Glehnia littoralis ssp. leiocarpa ©2017 Steve Matson
Hesperevax sparsiflora var. *brevifolia*	short-leaved evax	Asteraceae	annual herb	Mar-Jun	None	None	G4T3	S3	1B.2	1994-01-01	 © 2006 Doreen L. Smith

Horkelia howellii	Howell's horkelia	Rosaceae	perennial herb	Jun-Aug	None	None	G4	S3	4.3		2021-04-23
Horkelia sericata	silky horkelia	Rosaceae	perennial herb	Jun-Aug	None	None	G3G4	S3	4.3		1974-01-01
Hosackia gracilis	harlequin lotus	Fabaceae	perennial rhizomatous herb	Mar-Jul	None	None	G3G4	S3	4.2		2004-01-01
Iris bracteata	Siskiyou iris	Iridaceae	perennial rhizomatous herb	May-Jun	None	None	G3	S3	3.3		1974-01-01
Iris innominata	Del Norte County iris	Iridaceae	perennial rhizomatous herb	May-Jun	None	None	G4G5	S3	4.3		1974-01-01
Iris tenax ssp. *klamathensis*	Orleans iris	Iridaceae	perennial rhizomatous herb	Apr-May	None	None	G4G5T4	S4	4.3	Yes	1974-01-01
Iris thompsonii	Thompson's iris	Iridaceae	perennial rhizomatous herb	(Mar-Apr)May-Jun(Jul-Aug)	None	None	G3	S3	4.3		2021-07-24
Kopsiopsis hookeri	small groundcone	Orobanchaceae	perennial rhizomatous herb (parasitic)	Apr-Aug	None	None	G4?	S1S2	2B.3		1994-01-01


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Lasthenia californica ssp. *macrantha*	perennial goldfields	Asteraceae	perennial herb	Jan-Nov	None	None	G3T2	S2	1B.2	Yes	2001-01-01	 © 2013 John Doyen
Lathyrus delnorticus	Del Norte pea	Fabaceae	perennial herb	Jun-Jul	None	None	G4	S3	4.3		1974-01-01	 © 2016 Keir Morse
Lathyrus japonicus	seaside pea	Fabaceae	perennial rhizomatous herb	May-Aug	None	None	G5	S2	2B.1		2001-01-01	 ©2021 Scot Loring
Lathyrus palustris	marsh pea	Fabaceae	perennial herb	Mar-Aug	None	None	G5	S2	2B.2		1994-01-01	 © 2016 Keir Morse
Leptosiphon latisectus	broad-lobed leptosiphon	Polemoniaceae	annual herb	Apr-Jun	None	None	G4	S4	4.3	Yes	2001-01-01	 © 2015 Steve Matson
Lewisia oppositifolia	opposite-leaved lewisia	Montiaceae	perennial herb	Apr-May(Jun)	None	None	G3	S2	2B.2		1974-01-01	 © 2013 Scot Loring
Lilium bolanderi	Bolander's lily	Liliaceae	perennial bulbiferous herb	Jun-Jul	None	None	G4	S3S4	4.2		1974-01-01	 © 2008 Keir Morse
Lilium kelloggii	Kellogg's lily	Liliaceae	perennial bulbiferous herb	(Feb)May-Aug	None	None	G3	S3	4.3		1974-01-01	 © 2019 Spencer Riffle
Lilium occidentale	western lily	Liliaceae	perennial bulbiferous herb	Jun-Jul	FE	CE	G1G2	S1	1B.1		1974-01-01	 © 2018 Jason Matthias Mills

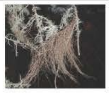
Lilium pardalinum ssp. *vollmeri*	Vollmer's lily	Liliaceae	perennial bulbiferous herb	(Jun)Jul-Aug	None	None	G5T4	S3	4.3	1974-01-01	 © 2008 Keir Morse
Listera cordata	heart-leaved twayblade	Orchidaceae	perennial herb	Feb-Jul	None	None	G5	S4	4.2	1974-01-01	 ©2013 Dr. Amadej Trnkoczy 0000 0000 0513 2468
Lomatium howellii	Howell's lomatium	Apiaceae	perennial herb	Apr-Jul	None	None	G4G5	S4	4.3	1974-01-01	 ©2008 Keir Morse
Lomatium martindalei	Coast Range lomatium	Apiaceae	perennial herb	May-Jun(Aug)	None	None	G5	S2	2B.3	1980-01-01	 ©2014 Barry Rice
Lycopodium clavatum	running-pine	Lycopodiaceae	perennial rhizomatous herb	Jun-Aug(Sep)	None	None	G5	S3	4.1	1974-01-01	 © 2021 Scot Loring
Lysimachia europaea	arctic starflower	Myrsinaceae	perennial herb	Jun-Jul	None	None	G5	S1	2B.2	1980-01-01	Photo of Lysimachia europaea ©2017 Barry Rice
Micranthes howellii	Howell's saxifrage	Saxifragaceae	perennial rhizomatous herb	Mar-May	None	None	G4	S3	4.3	1974-01-01	 © 2007 Jenn Tiehm
Micranthes marshallii	Marshall's saxifrage	Saxifragaceae	perennial rhizomatous herb	Mar-Aug	None	None	G5	S3	4.3	2016-07-06	 2017 Barrett Jeffery

Mitellastra caulescens	leafy-stemmed mitrewort	Saxifragaceae	perennial rhizomatous herb	(Mar)Apr-Oct	None	None	G5	S4	4.2	2001-01-01	 © 2014 Dana York
Moneses uniflora	woodnymph	Ericaceae	perennial rhizomatous herb	May-Aug	None	None	G5	S2	2B.2	2001-01-01	Photo of Moneses uniflora ©2021 Scot Loring
Monotropa uniflora	ghost-pipe	Ericaceae	perennial herb (achlorophyllous)	Jun-Aug(Sep)	None	None	G5	S2	2B.2	1974-01-01	 © 2021 Scot Loring
Oenothera wolfii	Wolf's evening-primrose	Onagraceae	perennial herb	May-Oct	None	None	G2	S1	1B.1	1980-01-01	 ©2017 Dana York
Oxalis suksdorfii	Suksdorf's wood-sorrel	Oxalidaceae	perennial rhizomatous herb	May-Aug	None	None	G4	S3	4.3	2001-01-01	Photo of Oxalis suksdorfii ©2021 Scot Loring
Packera bolanderi var. *bolanderi*	seacoast ragwort	Asteraceae	perennial rhizomatous herb	(Jan-Apr)May-Jul(Aug)	None	None	G4T4	S2S3	2B.2	2001-01-01	 © 2021 Scot Loring
Packera hesperia	western ragwort	Asteraceae	perennial herb	Apr-Jun	None	None	G3	S1	2B.2	2007-04-12	 ©2008 Keir Morse
Packera macounii	Siskiyou Mountains ragwort	Asteraceae	perennial herb	Jun-Jul	None	None	G4?	S3	4.3	1984-01-01	 © 2008 Keir Morse

Perideridia gairdneri ssp. *gairdneri*	Gairdner's yampah	Apiaceae	perennial herb	Jun-Oct	None	None	G3G4	S3S4	4.2	Yes	1974-01-01	 ©2007 Neal Kramer
Phacelia argentea	sand dune phacelia	Hydrophyllaceae	perennial herb	Jun-Aug	FT	None	G2	S1	1B.1		1974-01-01	 © 2012 Genevieve K Walden
Pinguicula macroceras	horned butterwort	Lentibulariaceae	perennial herb (carnivorous)	Apr-Jun	None	None	G4	S2	2B.2		1974-01-01	 ©2009 Barry Rice
Piperia candida	white-flowered rein orchid	Orchidaceae	perennial herb	(Mar-Apr)May-Sep	None	None	G3?	S3	1B.2		1994-01-01	 ©2016 Barry Rice
Pityopus californicus	California pinefoot	Ericaceae	perennial herb (achlorophyllous)	(Mar-Apr)May-Aug	None	None	G4G5	S4	4.2		1974-01-01	 ©2009 Barry Rice
Platismatia lacunosa	crinkled rag lichen	Parmeliaceae	foliose lichen (epiphytic)		None	None	G4	S2?	2B.3		2022-09-28	 © 2014 Chris Wagner
Pleuropogon refractus	nodding semaphore grass	Poaceae	perennial rhizomatous herb	(Feb-Mar)Apr-Aug	None	None	G4	S4	4.2		1974-01-01	Photo of Pleuropogon refractus ©2004 Dean Wm. Taylor
Poa piperi	Piper's blue grass	Poaceae	perennial rhizomatous herb	Apr-May	None	None	G4	S3	4.3		1974-01-01	 © 2021 Scot Loring

Polemonium carneum	Oregon polemonium	Polemoniaceae	perennial herb	Apr-Sep	None	None	G3G4	S2	2B.2	2008-11-03	Photo of Polemonium carneum ©2018 John Doyen
Potamogeton foliosus ssp. *fibrillosus*	fibrous pondweed	Potamogetonaceae	perennial rhizomatous herb (aquatic)	Unk	None	None	G5T2T3	S1S2	2B.3	1994-01-01	No Photo Available
Prosartes parvifolia	Siskiyou bells	Liliaceae	perennial bulbiferous herb	May-Sep	None	None	G2	S2	1B.2	2012-02-08	 ©2010 Kjirsten Wayman
Pyrrocoma racemosa var. *congesta*	Del Norte pyrrocoma	Asteraceae	perennial herb	Aug-Sep	None	None	G5T4	S2	2B.3	1980-01-01	 ©2008 Keir Morse
Ramalina thrausta	angel's hair lichen	Ramalinaceae	fruticose lichen (epiphytic)		None	None	G5?	S2S3	2B.1	2014-03-01	 © 2013 Scot Loring
Rhynchospora alba	white beaked-rush	Cyperaceae	perennial rhizomatous herb	Jun-Aug	None	None	G5	S2	2B.2	1974-01-01	Photo of Rhynchospora alba © 2021 Scot Loring
Ribes laxiflorum	trailing black currant	Grossulariaceae	perennial deciduous shrub	Mar-Jul(Aug)	None	None	G5?	S3	4.3	1974-01-01	Photo of Ribes laxiflorum ©2010 Dana York
Romanzoffia tracyi	Tracy's romanzoffia	Hydrophyllaceae	perennial herb	Mar-May	None	None	G4	S2	2B.3	2001-01-01	Photo of Romanzoffia tracyi ©2017 Steve Matson
Rosa gymnocarpa var. *serpentina*	Gasquet rose	Rosaceae	perennial rhizomatous shrub	Apr-Jun(Aug)	None	None	G5T3T4	S2	1B.3	2011-11-30	 Dean Wm. Taylor, 2020

Sabulina howellii	Howell's sandwort	Caryophyllaceae	perennial herb	Apr-Jul	None	None	G3	S3	1B.3		1980-01-01	 ©2015 John Doyen
Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	None	None	G3	S3	1B.2	Yes	1984-01-01	 ©2013 Debra L. Cook
Salix delnortensis	Del Norte willow	Salicaceae	perennial deciduous shrub	Apr-May	None	None	G4	S4	4.3		1974-01-01	 ©2017 Steve Matson
Sanguisorba officinalis	great burnet	Rosaceae	perennial rhizomatous herb	Jul-Oct	None	None	G5?	S2	2B.2		1994-01-01	 ©2006 Dr. Amadej Trnkoczy
Sanicula peckiana	Peck's sanicle	Apiaceae	perennial herb	Mar-Jun	None	None	G4	S3	4.3		1974-01-01	 ©2017 Steve Matson
Sedum citrinum	Blue Creek stonecrop	Crassulaceae	perennial herb	Jun	None	None	G2	S2	1B.2	Yes	2015-04-20	 ©2014 Peter Zika
Sedum patens	Smith River stonecrop	Crassulaceae	perennial herb	May-Jul	None	None	G2	S2	1B.2		2021-05-14	No Photo Available
Sidalcea elegans	Del Norte checkerbloom	Malvaceae	perennial rhizomatous herb	May-Jul	None	None	G4?	S2?	3.3		2012-07-23	No Photo Available
Sidalcea malachroides	maple-leaved checkerbloom	Malvaceae	perennial herb	(Mar)Apr-Aug	None	None	G3	S3	4.2		1994-01-01	 ©2005 Dean Wm. Taylor

Sidalcea malviflora ssp. *patula*	Siskiyou checkerbloom	Malvaceae	perennial rhizomatous herb	(Mar-Apr)May-Aug	None	None	G4G5T2	S2	1B.2		1994-01-01	Photo of Sidalcea malviflora ssp. patula ©2004 Dean Wm. Taylor
Sidalcea oregana ssp. *eximia*	coast checkerbloom	Malvaceae	perennial herb	Jun-Aug	None	None	G5T1	S1	1B.2	Yes	1994-01-01	No Photo Available
Silene hookeri	Hooker's catchfly	Caryophyllaceae	perennial herb	(Mar)May-Jul	None	None	G4	S2	2B.2		2021-07-30	 ©2014 John Doyen
Silene scouleri ssp. *scouleri*	Scouler's catchfly	Caryophyllaceae	perennial herb	(Mar-May)Jun-Aug(Sep)	None	None	G5T4T5	S2S3	2B.2		2017-12-13	 ©2015 Vernon Smith
Silene serpentinicola	serpentine catchfly	Caryophyllaceae	perennial rhizomatous herb	May-Jul	None	None	G3	S3	1B.2		2005-01-01	Photo of Silene serpentinicola ©2008 Norman Jensen
Streptanthus howellii	Howell's jewelflower	Brassicaceae	perennial herb	Jul-Aug	None	None	G2G3	S2	1B.2		1980-01-01	 ©Rick York and CNPS
Sulcaria spiralifera	twisted horsehair lichen	Parmeliaceae	fruticose lichen (epiphytic)		None	None	G3G4	S2	1B.2		2014-03-01	 © 2021 Scot Loring
Tauschia glauca	glaucous tauschia	Apiaceae	perennial herb	Apr-Jun	None	None	G4	S4	4.3		1974-01-01	Photo of Tauschia glauca ©2022 Sierra Pacific Industries

Thermopsis robusta	robust false lupine	Fabaceae	perennial rhizomatous herb	May-Jul	None	None	G2	S2	1B.2	Yes	1994-01-01
Tiarella trifoliata var. *trifoliata*	trifoliate laceflower	Saxifragaceae	perennial rhizomatous herb	(May)Jun-Aug	None	None	G5T5	S2S3	3.2		1980-01-01
Triquetrella californica	coastal triquetrella	Pottiaceae	moss		None	None	G2	S2	1B.2		2001-01-01
Usnea longissima	Methuselah's beard lichen	Parmeliaceae	fruticose lichen (epiphytic)		None	None	G5	S4	4.2		2014-03-01
Vaccinium scoparium	little-leaved huckleberry	Ericaceae	perennial deciduous shrub	Jun-Aug	None	None	G5	S3	2B.2		1994-01-01
Vancouveria chrysantha	Siskiyou inside-out-flower	Berberidaceae	perennial rhizomatous herb	Jun	None	None	G4	S3	4.3		1974-01-01
Veratrum insolitum	Siskiyou false-hellebore	Melanthiaceae	perennial herb	Jun-Aug	None	None	G3	S4	4.3		1974-01-01
Viola langsdorffii	Langsdorf's violet	Violaceae	perennial herb	May-Jul	None	None	G4G5	S1	2B.1		1994-01-01


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Viola palustris	alpine marsh violet	Violaceae	perennial rhizomatous herb	Mar-Aug	None	None	G5	S1S2	2B.2	1994-01-01	 ©2021 Scot Loring
Viola primulifolia ssp. *occidentalis*	western white bog violet	Violaceae	perennial rhizomatous herb	Apr-Sep	None	None	G5T2	S2	1B.2	1980-01-01	Photo of Viola primulifolia ssp. occidentalis ©2003 Norman Jensen

Showing 1 to 136 of 136 entries

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Suggested Citation:
California Native Plant Society, Rare Plant Program. 2026. Rare Plant Inventory (online edition, v9.5.1). Website https://www.rareplants.cnps.org [accessed 8 January 2026].
}

Quad Name **Requa**
Quad Number **41124-E1**

ESA Anadromous Fish

SONCC Coho ESU (T) - X
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) - X
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) - X
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) -
Eulachon (T) - X
sDPS Green Sturgeon (T) - X

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat - X
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat - X
sDPS Green Sturgeon Critical Habitat - X

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -	X
Olive Ridley Sea Turtle (T/E) -	X
Leatherback Sea Turtle (E) -	X
North Pacific Loggerhead Sea Turtle (E) -	

ESA Whales

Blue Whale (E) -	X
Fin Whale (E) -	X
Humpback Whale (E) -	X
Southern Resident Killer Whale (E) -	X
North Pacific Right Whale (E) -	X
Sei Whale (E) -	X
Sperm Whale (E) -	X

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH -	X
Chinook Salmon EFH -	X
Groundfish EFH -	X
Coastal Pelagics EFH -	X
Highly Migratory Species EFH -	

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds
See list at left and consult the NMFS Long Beach office
562-980-4000

MMPA Cetaceans - X
MMPA Pinnipeds - X

Quad Name **Childs Hill**
Quad Number **41124-F1**

ESA Anadromous Fish

SONCC Coho ESU (T) - X
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) -
Eulachon (T) - X
sDPS Green Sturgeon (T) - X

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat - X
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat - X

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -	X
Olive Ridley Sea Turtle (T/E) -	X
Leatherback Sea Turtle (E) -	X
North Pacific Loggerhead Sea Turtle (E) -	

ESA Whales

Blue Whale (E) -	X
Fin Whale (E) -	X
Humpback Whale (E) -	X
Southern Resident Killer Whale (E) -	X
North Pacific Right Whale (E) -	X
Sei Whale (E) -	X
Sperm Whale (E) -	X

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH -	X
Chinook Salmon EFH -	X
Groundfish EFH -	X
Coastal Pelagics EFH -	X
Highly Migratory Species EFH -	

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds
See list at left and consult the NMFS Long Beach office
562-980-4000

MMPA Cetaceans - X
MMPA Pinnipeds - X

Quad Name **Sister Rocks**
Quad Number **41124-F2**

ESA Anadromous Fish

SONCC Coho ESU (T) - X
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) -
Eulachon (T) - X
sDPS Green Sturgeon (T) - X

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat - X
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat - X

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -	X
Olive Ridley Sea Turtle (T/E) -	X
Leatherback Sea Turtle (E) -	X
North Pacific Loggerhead Sea Turtle (E) -	

ESA Whales

Blue Whale (E) -	X
Fin Whale (E) -	X
Humpback Whale (E) -	X
Southern Resident Killer Whale (E) -	X
North Pacific Right Whale (E) -	X
Sei Whale (E) -	X
Sperm Whale (E) -	X

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH -	X
Chinook Salmon EFH -	X
Groundfish EFH -	X
Coastal Pelagics EFH -	X
Highly Migratory Species EFH -	

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds
See list at left and consult the NMFS Long Beach office
562-980-4000

MMPA Cetaceans - X
MMPA Pinnipeds - X

Quad Name **Smith River**
Quad Number **41124-H2**

ESA Anadromous Fish

SONCC Coho ESU (T) - X
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) -
Eulachon (T) - X
sDPS Green Sturgeon (T) - X

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat - X
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat - X

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -	X
Olive Ridley Sea Turtle (T/E) -	X
Leatherback Sea Turtle (E) -	X
North Pacific Loggerhead Sea Turtle (E) -	

ESA Whales

Blue Whale (E) -	X
Fin Whale (E) -	X
Humpback Whale (E) -	X
Southern Resident Killer Whale (E) -	X
North Pacific Right Whale (E) -	X
Sei Whale (E) -	X
Sperm Whale (E) -	X

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH -	X
Chinook Salmon EFH -	X
Groundfish EFH -	X
Coastal Pelagics EFH -	X
Highly Migratory Species EFH -	

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds
See list at left and consult the NMFS Long Beach office
562-980-4000

MMPA Cetaceans - X
MMPA Pinnipeds - X

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Arcata Fish And Wildlife Office
1655 Heindon Road
Arcata, CA 95521-4573
Phone: (707) 822-7201 Fax: (707) 822-8411

In Reply Refer To: 11/10/2025 21:04:02 UTC
Project Code: 2025-0021759
Project Name: 0K690 Culvert and Fish Passage - Del Norte Hwy 101

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/program/migratory-bird-permit/what-we-do.

It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Note: IPaC has provided all available attachments because this project is in multiple field office jurisdictions.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Arcata Fish And Wildlife Office
1655 Heindon Road
Arcata, CA 95521-4573
(707) 822-7201

This project's location is within the jurisdiction of multiple offices. However, only one species list document will be provided for all offices. The species and critical habitats in this document reflect the aggregation of those that fall in each of the affiliated office's jurisdiction. Other offices affiliated with the project:

Oregon Fish And Wildlife Office
2600 Southeast 98th Avenue, Suite 100
Portland, OR 97266-1398
(503) 231-6179

PROJECT SUMMARY

Project Code: 2025-0021759
Project Name: 0K690 Culvert and Fish Passage - Del Norte Hwy 101
Project Type: Culvert Repair/Replacement/Maintenance
Project Description: Nineteen locations from PM 8.98 to 41.96 for culvert replacement. Two fish passages: bridge at PM 37.46 and 12 x 12 foot box for Delilah Creek (PM 40.71) realignment.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@41.734912449999996,-124.12270380555915,14z



Counties: California and Oregon

ENDANGERED SPECIES ACT SPECIES

There is a total of 15 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Pacific Marten, Coastal Dps *Martes caurina* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9081	Threatened

BIRDS

NAME	STATUS
California Condor *Gymnogyps californianus* Population: Pacific Northwest NEP No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8193	Experimental Population, Non-Essential
Hawaiian Petrel *Pterodroma sandwichensis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6746	Endangered
Marbled Murrelet *Brachyramphus marmoratus* Population: U.S.A. (CA, OR, WA) There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4467	Threatened
Northern Spotted Owl *Strix occidentalis caurina* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1123	Threatened
Short-tailed Albatross *Phoebastria (=Diomedea) albatrus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/433	Endangered
Western Snowy Plover *Charadrius nivosus nivosus* Population: Pacific Coast population DPS-U.S.A. (CA, OR, WA), Mexico (within 50 miles of Pacific coast) There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8035	Threatened
Yellow-billed Cuckoo *Coccyzus americanus* Population: Western U.S. DPS There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

REPTILES

NAME	STATUS
Northwestern Pond Turtle *Actinemys marmorata* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1111	Proposed Threatened

FISHES

NAME	STATUS
Tidewater Goby *Eucyclogobius newberryi* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/57	Endangered

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened
Oregon Silverspot Butterfly *Speyeria zerene hippolyta* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6930	Threatened
Suckley's Cuckoo Bumble Bee *Bombus suckleyi* Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10885	Proposed Endangered

FLOWERING PLANTS

NAME	STATUS
Mcdonald"s Rock-cress *Arabis mcdonaldiana* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6849	Endangered
Western Lily *Lilium occidentale* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/998	Endangered

CRITICAL HABITATS

There are 6 critical habitats wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Marbled Murrelet *Brachyramphus marmoratus* https://ecos.fws.gov/ecp/species/4467#crithab	Final
Northern Spotted Owl *Strix occidentalis caurina* https://ecos.fws.gov/ecp/species/1123#crithab	Final
Pacific Marten, Coastal Dps *Martes caurina* https://ecos.fws.gov/ecp/species/9081#crithab	Final
Sand Dune Phacelia *Phacelia argentea*	Final

NAME	STATUS
For information on why this critical habitat appears for your project, even though Sand Dune Phacelia is not on the list of potentially affected species at this location, contact the local field office. https://ecos.fws.gov/ecp/species/599#crithab	
Tidewater Goby *Eucyclogobius newberryi* https://ecos.fws.gov/ecp/species/57#crithab	Final
Western Snowy Plover *Charadrius nivosus nivosus* https://ecos.fws.gov/ecp/species/8035#crithab	Final

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

The following FWS National Wildlife Refuge Lands and Fish Hatcheries lie fully or partially within your project area:

FACILITY NAME	ACRES
CASTLE ROCK NATIONAL WILDLIFE REFUGE https://www.fws.gov/our-facilities?$keywords="%5C%22CASTLE+ROCK+NATIONAL+WILDLIFE+REFUGE%5C%22"	13.807

BALD & GOLDEN EAGLES

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act [2] and the Migratory Bird Treaty Act (MBTA) [1]. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

1. The Bald and Golden Eagle Protection Act of 1940.
2. The Migratory Birds Treaty Act of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are Bald Eagles and/or Golden Eagles in your project area.

Measures for Proactively Minimizing Eagle Impacts
For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the National Bald Eagle Management Guidelines. You may employ the timing and activity-specific distance recommendations in this document when designing your project/

activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to Bald Eagle Nesting and Sensitivity to Human Activity.

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

If disturbance or take of eagles cannot be avoided, an incidental take permit may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the Do I Need A Permit Tool. For assistance making this determination for golden eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

Ensure Your Eagle List is Accurate and Complete
If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the Supplemental Information on Migratory Birds and Eagles, to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Mar 1 to Aug 31
Golden Eagle *Aquila chrysaetos* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Mar 1 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

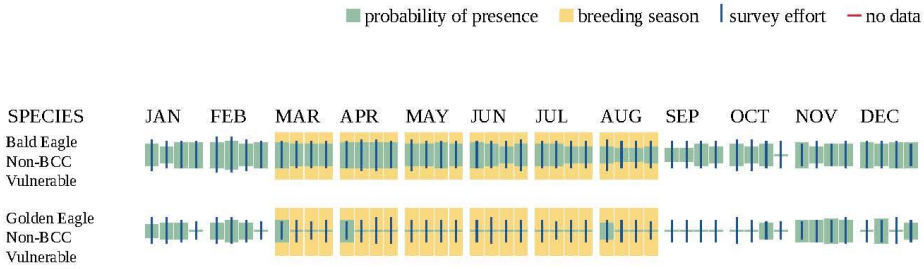
Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (▪)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA) [1] prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Allen's Hummingbird *Selasphorus sasin* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9637	Breeds Feb 1 to Jul 15
Ancient Murrelet *Synthliboramphus antiquus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/11929	Breeds Mar 10 to Sep 10
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Mar 1 to Aug 31
Black Oystercatcher *Haematopus bachmani* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9591	Breeds Apr 15 to Oct 31
Black Scoter *Melanitta nigra* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/10413	Breeds elsewhere
Black Swift *Cypseloides niger* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8878	Breeds Jun 15 to Sep 10
Black Turnstone *Arenaria melanocephala* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10557	Breeds elsewhere
Black-legged Kittiwake *Rissa tridactyla* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/10459	Breeds elsewhere

NAME	BREEDING SEASON
Black-vented Shearwater *Puffinus opisthomelas* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9623	Breeds elsewhere
Brandt's Cormorant *Urile penicillatus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/11903	Breeds Apr 15 to Sep 15
Brown Pelican *Pelecanus occidentalis* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/6034	Breeds Jan 15 to Sep 30
California Gull *Larus californicus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10955	Breeds Mar 1 to Jul 31
Cassin's Auklet *Ptychoramphus aleuticus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/6967	Breeds Mar 21 to Sep 21
Cassin's Finch *Haemorhous cassinii* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9462	Breeds May 15 to Jul 15
Chestnut-backed Chickadee *Poecile rufescens rufescens* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/11913	Breeds Mar 1 to Jul 31
Clark's Grebe *Aechmophorus clarkii* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10575	Breeds Jun 1 to Aug 31
Common Eider *Somateria mollissima* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/10457	Breeds Jun 1 to Sep 30

NAME	BREEDING SEASON
Common Loon *gavia immer* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/4464	Breeds Apr 15 to Oct 31
Common Murre *Uria aalge* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/10453	Breeds Apr 15 to Aug 15
Double-crested Cormorant *phalacrocorax auritus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/3478	Breeds Apr 20 to Aug 31
Evening Grosbeak *Coccothraustes vespertinus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9465	Breeds May 15 to Aug 10
Golden Eagle *Aquila chrysaetos* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Mar 1 to Aug 31
Lesser Yellowlegs *Tringa flavipes* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Long-tailed Duck *Clangula hyemalis* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/7238	Breeds elsewhere
Manx Shearwater *Puffinus puffinus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/10465	Breeds Apr 15 to Oct 31
Marbled Godwit *Limosa fedoa* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9481	Breeds elsewhere

NAME	BREEDING SEASON
Oak Titmouse *Baeolophus inornatus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9656	Breeds Mar 15 to Jul 15
Olive-sided Flycatcher *Contopus cooperi* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914	Breeds May 20 to Aug 31
Oregon Vesper Sparrow *Pooecetes gramineus affinis* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/5141	Breeds Apr 21 to Aug 31
Pink-footed Shearwater *Ardenna creatopus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9598	Breeds elsewhere
Pomarine Jaeger *Stercorarius pomarinus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/10458	Breeds elsewhere
Red Knot *Calidris canutus roselaari* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8880	Breeds elsewhere
Red Phalarope *Phalaropus fulicarius* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/10469	Breeds elsewhere
Red-breasted Merganser *Mergus serrator* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/10693	Breeds elsewhere
Red-necked Phalarope *Phalaropus lobatus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/10467	Breeds elsewhere

NAME	BREEDING SEASON
Red-throated Loon *Gavia stellata* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/9589	Breeds elsewhere
Ring-billed Gull *Larus delawarensis* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/10468	Breeds elsewhere
Rufous Hummingbird *Selasphorus rufus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8002	Breeds Apr 15 to Jul 15
Short-billed Dowitcher *Limnodromus griseus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds Jun 1 to Aug 10
Sooty Shearwater *Ardenna grisea* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/10417	Breeds elsewhere
South Polar Skua *Stercorarius maccormicki* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/10699	Breeds elsewhere
Surf Scoter *Melanitta perspicillata* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/10463	Breeds elsewhere
Tufted Puffin *Fratercula cirrhata* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/430	Breeds May 5 to Oct 5
Western Grebe *aechmophorus occidentalis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6743	Breeds Jun 1 to Aug 31

NAME	BREEDING SEASON
Western Gull *Larus occidentalis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/11969	Breeds Apr 21 to Aug 25
Western Screech-owl *Megascops kennicottii cardonensis* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/11923	Breeds Mar 1 to Jun 30
White-winged Scoter *Melanitta fusca* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/10462	Breeds elsewhere
Willet *Tringa semipalmata* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10669	Breeds elsewhere
Wrentit *Chamaea fasciata* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10668	Breeds Mar 15 to Aug 10

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (▪)

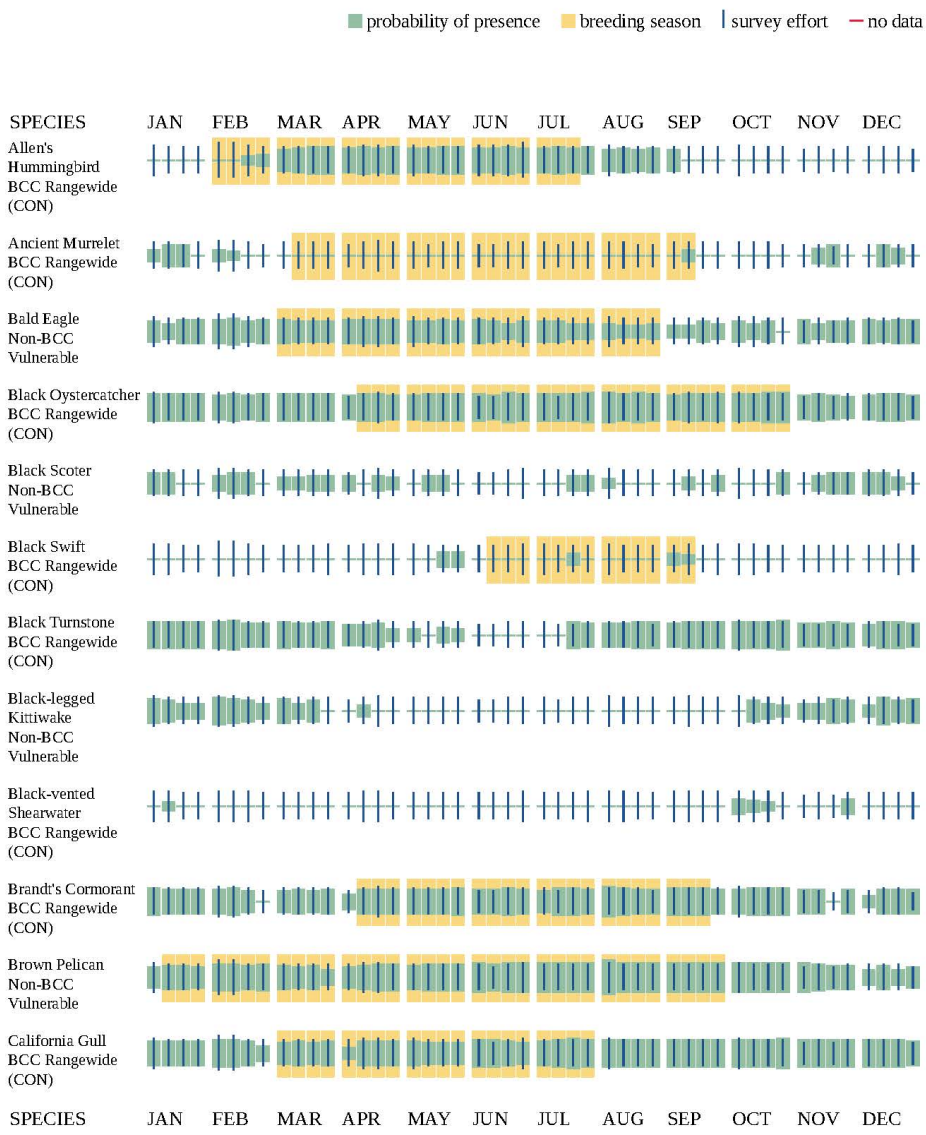
Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

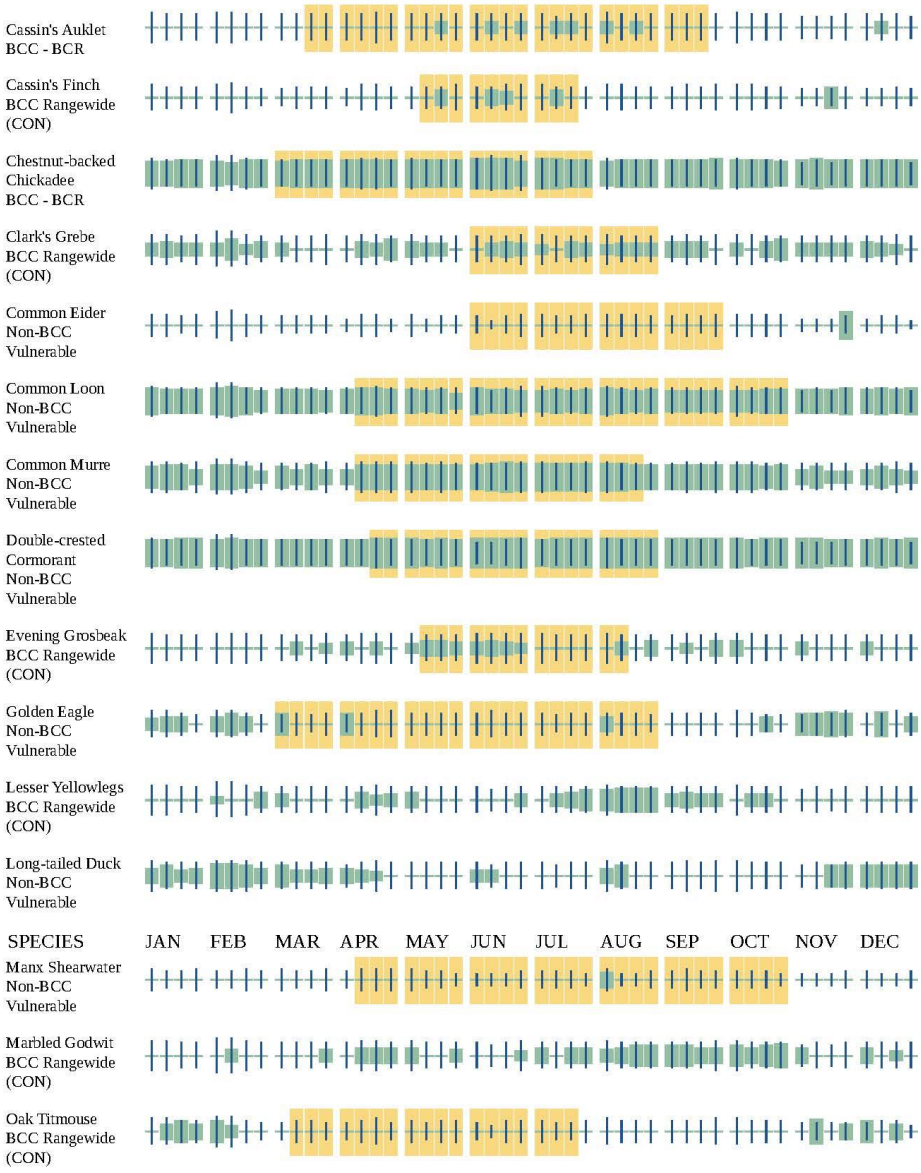
Breeding Season (▪)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

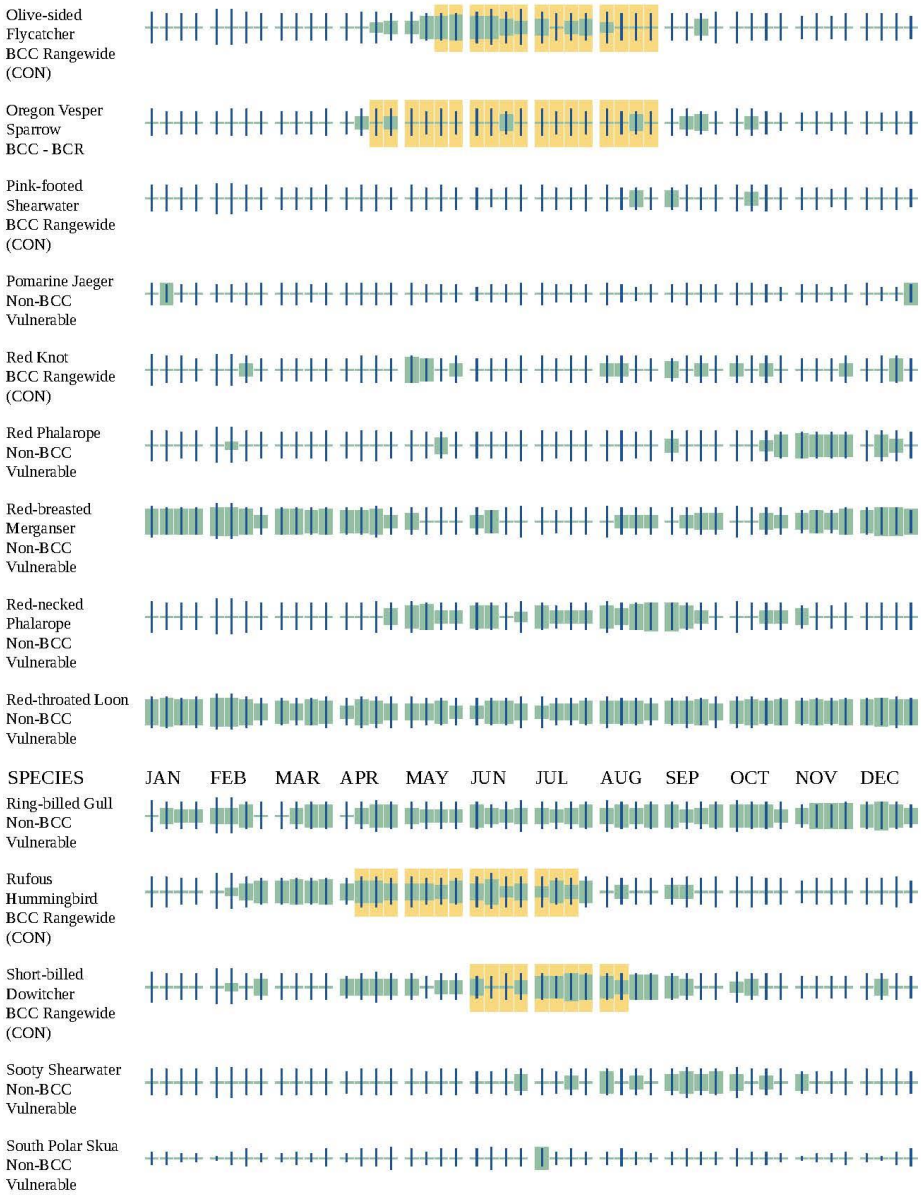
Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

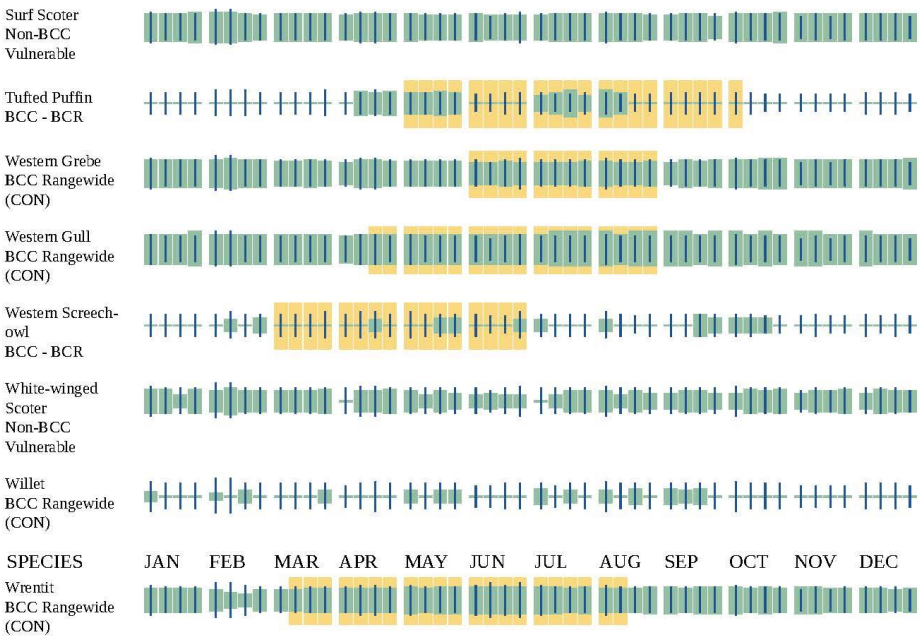
No Data (–)

A week is marked as having no data if there were no survey events for that week.




Cassin's Auklet BCC - BCR
Cassin's Finch BCC Rangewide (CON)
Chestnut-backed Chickadee BCC - BCR
Clark's Grebe BCC Rangewide (CON)
Common Eider Non-BCC Vulnerable
Common Loon Non-BCC Vulnerable
Common Murre Non-BCC Vulnerable
Double-crested Cormorant Non-BCC Vulnerable
Evening Grosbeak BCC Rangewide (CON)
Golden Eagle Non-BCC Vulnerable
Lesser Yellowlegs BCC Rangewide (CON)
Long-tailed Duck Non-BCC Vulnerable
SPECIES JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
Manx Shearwater Non-BCC Vulnerable
Marbled Godwit BCC Rangewide (CON)
Oak Titmouse BCC Rangewide (CON)


Olive-sided Flycatcher BCC Rangewide (CON)
Oregon Vesper Sparrow BCC - BCR
Pink-footed Shearwater BCC Rangewide (CON)
Pomarine Jaeger Non-BCC Vulnerable
Red Knot BCC Rangewide (CON)
Red Phalarope Non-BCC Vulnerable
Red-breasted Merganser Non-BCC Vulnerable
Red-necked Phalarope Non-BCC Vulnerable
Red-throated Loon Non-BCC Vulnerable
SPECIES
JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
Ring-billed Gull Non-BCC Vulnerable
Rufous Hummingbird BCC Rangewide (CON)
Short-billed Dowitcher BCC Rangewide (CON)
Sooty Shearwater Non-BCC Vulnerable
South Polar Skua Non-BCC Vulnerable



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

WETLANDS

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

Due to your project's size, the list below may be incomplete, or the acreages reported may be inaccurate. For a full list, please contact the local U.S. Fish and Wildlife office or visit https://www.fws.gov/wetlands/data/mapper.HTML

FRESHWATER FORESTED/SHRUB WETLAND

- PSS1C
- PSS1R
- PFO1Ch
- PSS1/EM1F
- PFO1/4C
- PSS1/USA
- PFO
- PSS1S
- PSS1/FO1C
- PFO1/EM1A
- PFO4/1C
- PFO4C
- PFO1/EM1F
- PSS1Cd
- PFOA
- PFO1A
- PSS1/USC
- PSS1A
- PFO4/1A
- PFO1F
- PSS1/EM1C
- PFO1C
- PFO1/SS1C
- PSS1/EM1A
- PSS1/UBF
- PSS1F
- PFO5F

RIVERINE

- R2UBH

- R5UBH
- R3UBF
- R1UBV
- R3USC
- R4SBC
- R4SBA
- R1USQ
- R3US5C
- R5UBF
- R3UBH
- R3US1C

FRESHWATER EMERGENT WETLAND

- PEM1/SS1C
- PEM1T
- PEM1Cx
- PEM1Cd
- PEM1/FOCh
- PEM1Fx
- PEM1/SSC
- PEM1Ch
- PEM1R
- PEM1C
- PEM1A
- PEM1Fh
- PEM1F

FRESHWATER POND

- PUBV
- PABHx
- PABHh
- PUBFx
- PUBH
- PUBT
- PUBHh
- PUSC
- PUBHx
- PUSCx

- PUBF
- PUSA
- PAB3H
- PABH
- PUBK
- PAB3/UBHx

ESTUARINE AND MARINE WETLAND

- E2USM
- M2RS2N
- M2RS2Nr
- E2US2N
- E2USP
- E2SS1P
- M2USN
- E2USN
- M2US2N
- E2SSP
- E2EM1N
- E2US2P
- M2RS1N
- E2EM1P
- M2USP
- M2RSN
- M2RSP

ESTUARINE AND MARINE DEEPWATER

- E1UBL

LAKE

- L1UBH

IPAC USER CONTACT INFORMATION

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Appendix D. Response to Comments



Comments from CDFW, Received 7/11/2025

On June 11, 2025, the California Department of Fish and Wildlife (CDFW) received an Initial Study with Proposed Negative Declaration (IS/ND) from the California Department of Transportation (Caltrans; Lead Agency) for the DN 101 Culvert Rehabilitation and Fish Passage Project (Project), Del Norte County, California. CDFW understands that the Lead Agency will accept comments on the Project through July 11, 2025.

As a Trustee Agency for the State's fish and wildlife resources, CDFW has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and the habitat necessary to sustain their populations. As a Responsible Agency, CDFW administers the California Endangered Species Act (CESA) and other provisions of the Fish and Game Code (Fish & G. Code) that conserve the State's fish and wildlife public trust resources. CDFW offers the following comments and recommendations in our role as Trustee and Responsible Agency pursuant to the California Environmental Quality Act (CEQA; California Public Resource Code, § 21000 et seq.). CDFW participates in the regulatory process in its roles as Trustee and Responsible Agency to minimize Project impacts and avoid potentially significant environmental impacts by recommending avoidance and minimization measures. These comments are intended to reduce the Project's impacts on public trust resources.

Project Description

As stated in the IS/ND, the Project is located on a section of U.S. Highway 101 (US 101) in Del Norte County, California between post miles (PM) 0.0 and 46.5. The project would rehabilitate 20 drainage systems and remediate fish passage at two of these locations (Mello Creek at PMs 37.46 and Delilah Creek at PM 41.96). As summarized in IS/ND section 1.8, the Project includes many Standard Measures and Best Management Practices to avoid or minimize impacts to biological and other resources.

Environmental Setting and Special Status Species

Coastal streams in Del Norte County provide spawning and rearing habitat for a variety of salmonids as well as habitat for other sensitive aquatic and terrestrial species including Southern Oregon/Northern California Evolutionarily Significant Unit (ESU) of coho salmon (*Oncorhynchus kisutch*; State Threatened [ST]), Klamath

Mountains Province Distinct Population Segment (DPS) of steelhead (*O. mykiss*; Species of Special Concern [SSC]), coastal cutthroat trout (*O. clarkii clarkii;* SSC), Longfin smelt (*Spirinchus thaleichthys*; ST), Pacific lamprey (*Entosphenus tridentatus*; SSC), Western brook lamprey (*Lampetra richardsoni*; SSC), Western pond turtle (*Actinemys marmorata*; SSC), foothill yellow-legged frog–North Coast clade *(Rana boylii*; SSC), northern red-legged frog (*R. aurora*; SSC), willow flycatcher (*Empidonax traillii*; State Endangered) yellow warbler (*Setophaga petechia*; SSC), osprey (*Pandion haliaetus*; Watch List), bald eagle (*Haliaeetus leucocephalus*; SE), and other terrestrial and aquatic species.

CDFW Consultation History

CDFW consultation for this Project began in February 2025, with preliminary discussions of fish passage locations. CDFW looks forward to continued communication and coordination by the Lead Agency regarding specific Project components, impacts, and proposed mitigation strategies.

CDFW Permitting

Based on information provided in the IS/ND, the proposed Project will have substantial impacts to the bed, bank or channel of streams. Caltrans should notify CDFW for a Lake or Streambed Alteration (LSA) Agreement. Based on information provided in the IS/ND, CDFW agrees with the Lead Agency that the Project could result in take1 (e.g., capture and relocation of fish) of species listed as threatened, or endangered pursuant to Fish and Game Code. CDFW looks forward to continuing coordination with Caltrans regarding state permitting requirements.

CDFW Comments on the IS/ND

[This section has been lightly reformatted to facilitate clear responses from Caltrans.]

1. Fish Passage Environmental Study Limits and Right of Way

The Environmental Study Limits (ESL), Right of Way (ROW), and Temporary Construction Easements (TCE) are defined generally in the IS/ND but are not clearly shown on figures or plans within the IS/ND for the entirety of the project locations **(1)**. It is unclear if the ESL and ROW/TCE are large enough to encompass areas needed at Project Locations where fish passage design and/or stream bed vertical adjustment is needed **(2)**. More specifically, the IS/ND does not contain related information for stream geomorphic assessments, long profile elevation surveys, channel cross sections with existing and proposed Project elements, and

HEC-RAS modeling (HSU, Love 2022) **(3)**. Without this information CDFW is not able to evaluate the appropriateness of proposed engineered stream crossing lengths/widths, effects of streamflow modifications, and distance/locations of streamflow bypass around construction areas. As a result, CDFW cannot evaluate the adequacy of the ESL and ROW/TCE. These parameters are needed to identify the entire Project area and the "whole of the action", which will inform appropriate ESL, ROW/TCE (CEQA Guidelines sections 15003(h), and 15063(a)(1)) **(4)**. Additionally, insufficient ROW or TCE areas could result in Project delays or unforeseen additional costs to Caltrans. Prematurely approved CEQA documents can, and do, result in costly major re-work during Caltrans' design phase (Caltrans 2022). Permitting delays and design re-work can be avoided if resources for stream geomorphic assessments and associated modeling for fish passage design are allocated prior to CEQA (AB 1282) **(5)**.

Therefore, CDFW recommends the IS/ND be revised to include, for complex fish passage remediation locations and/or locations where stream bed vertical adjustment is needed, a minimum of 30% design plans for stream grading that utilize stream geomorphic assessments, long profile elevation surveys, channel cross sections, and HEC-RAS modeling (Recommendation 1) **(6)**. Conducting this work prior to preparing a CEQA document will increase the likelihood that the ESL and ROW/TCE are sufficient for biological effects analyses as well as site access for construction activities.

CDFW Summary of Recommendations:

1. CDFW recommends the IS/ND be revised to include a minimum of 30% design Plans for stream grading that utilize stream geomorphic assessments, long profile elevation surveys, channel cross sections, and HEC-RAS modeling for complex fish passage remediation locations and/or locations where stream bed vertical adjustment is needed. Conducting this work prior to preparing a CEQA document will increase the likelihood that the ESL and ROW/TCE are sufficient for biological effects analyses as well as site access for construction activities.

Thank you for the opportunity to comment on this IS/ND. CDFW staff are available to meet with you to consult with or address the contents of this letter in greater depth. If you have questions on this matter or would like to discuss these recommendations, please contact Senior Environmental Scientist Specialist Greg O'Connell at Gregory.Oconnell@Wildlife.ca.gov.

Caltrans Response to CDFW Comment Letter:

1. The Caltrans right of way (ROW) and Environmental Study Limits (ESL) may extend beyond the area shown in the project layouts. TCEs have been refined, and layouts in this document reflect currently anticipated TCEs at each location.
2. If necessary, the ESLs and TCEs will be adjusted as appropriate as the project progresses through the final design phase. The existing ESL and TCE areas were determined based on the largest area the project could potentially impact. We do not anticipate additional stream survey work and hydraulic modeling to increase these areas.
3. The design grade longitudinal profile elevation surveys, channel cross sections, and existing hydraulic (HEC-RAS) modeling are in progress and will be provided to CDFW when available.
4. Caltrans is required to obtain CDFW approval of the stream crossing design for fish passage locations. Caltrans will continue to work with CDFW hydraulics staff to ensure an appropriate design through the next phase of the project.
5. The Caltrans project team has assumed maximum potential impacts and maximum ESL and TCE areas through these early stages of the project to avoid risks from insufficient ROW or TCE areas.
6. We will continue to work with CDFW staff through the next phase of the project on the complex fish passage remediation locations and/or locations where stream bed vertical adjustment is needed. A 1600 will be required for these locations and others, which will involve consultation with CDFW hydraulics staff and liaison. Caltrans would share additional information with CDFW staff as it becomes available and would seek input from CDFW staff as the design(s) progress during the Plans, Specifications, and Estimates (PS&E) phase and prior to submittal of the 1600 application. Thank you for your comments on this IS/ND.

Comments from CA State Parks - North Coast Redwoods District, Received 7/14/2025:

On behalf of the North Coast Redwoods District (NCRD) of California Department of Parks and Recreation (CA State Parks), I am writing to provide our comments regarding the California Department of Transportation (Caltrans) Draft Initial Study with Proposed Negative Declaration (environmental document) prepared for the Culvert Rehabilitation and Fish Passage Project, located along U.S. Highway 101 between Post Miles M0.0 and 46.5. The project includes six locations adjacent to Del Norte Coast Redwoods State Park, including one that requires a transfer of jurisdiction. CA State Parks understands that the project will prepare a separate Section 4(f) Evaluation that shows the areas that will temporarily or permanently occupied by Caltrans will be circulated at a different time.

CA State Parks as the fee title owner and grantor of the easements has a unique role under the California Environmental Quality Act (CEQA) as both a trustee and responsible agency. A trustee agency is, “having jurisdiction by law over natural resources affected by a project that are held in trust for the people of the State of California for resources within” (CCR § 15386). By law, CA State Parks is obligated to ensure that these resources are protected as part of the State Park system. Furthermore, as identified in Public Resources Code § 5019.53, “ the purpose of State Parks shall be to preserve outstanding natural, scenic, and cultural values, indigenous aquatic and terrestrial fauna and flora, and the most significant examples of ecological regions of California, such as … redwoods.” Moreover, as a responsible agency issuing discretionary permits for temporary access and permanent easements for this project, CA State Parks is vested in a thorough review and with high engagement throughout the environmental review process and life of the project.

Comments:

1. Page 15. The list of approvals should include the Transfer of Jurisdiction as one of the necessary approvals.
2. CA State Parks requests a revised Table 1, that includes species, diameters, and heights of the estimated tree removal to best understand the impacts of the proposed project.
3. As part of the development of the revegetation plan, CA State Parks is interested in any attempts to salvage vegetation removed to be used onsite.

4. CA State Parks requests all listed and non-listed fish and amphibian species be relocated from within the project area at stream crossings occurring on State Park lands.
5. California State Parks requests confirmation that all proposed stream crossings are designed to accommodate the 100-year flood event, consistent with state and federal design standards for fish passage and infrastructure resilience.
6. Further discussion is requested regarding BR-4-E because CA State Parks staff have observed the persistence and proliferation of sterile seeds used in erosion control mixes.
7. The details of the compensatory mitigation for impacts to wetlands was not found and further information regarding the location is requested.

Thank you for the opportunity to review and comment upon the Draft Environmental Document. Please let me know if you have any questions about any of these comments or request for clarification. CA State Parks recognizes the previous and ongoing effort by Caltrans to work together in coordination. As Caltrans proceeds with design and the final environmental impact analysis of the project, CA State Parks looks forward to continued involvement.

Caltrans Responses to State Parks:

1. The Transfer of Jurisdiction was clarified during a meeting with Caltrans and California State Parks as no longer necessary. A Temporary Construction Easement will instead be necessary, and has been added to the list of approvals on Table 3 in Section 1.7, Permits and Approvals Needed.
2. Tree number, species, and diameter at breast height (DBH) to be removed at relevant locations have been added to the IS/ND as Table 2 in Section 1.3– Project Description. Table 1 is used to reference the drainage system work; thus, a separate table was prepared. -Caltrans continued research into the deeds and titles at the 4(f) locations and determined that California State Parks is the fee title owner of the Caltrans Right of Way at several locations; however, there currently is no tree removal proposed within the California State Parks jurisdiction.

3. As discussed during a site visit on August 18, 2025, Caltrans will continue coordinating with State Parks to develop a plan for salvaging small plants for replanting on site as feasible and appropriate for each location. Caltrans is sensitive to the concern of State Parks regarding the ferns that form an important part of the forest understory, but are difficult and slow to propagate from local sources.
4. Presence of fish is not anticipated at locations adjacent to State Parks due to limited water levels during the summer work windows and distance from tributary connections; however, there is potential for encountering amphibians. Any amphibians encountered in the construction area would be relocated by a qualified Contractor Supplied Biologist (CSB). Species relocation plans would be included in the Standard Specifications; and our Standard Specification requiring this is included in this document as well. Please refer to this Environmental Document, Section 1.8, BR-2: F (Qualified CSB) and G (Aquatic Species Relocation Plan).
5. This project is being designed to State of California standards, which are higher than federal standards. As such, a 100-year flood would not cause a headwater elevation that would rise above the roadway elevation or cause objectionable backwater depths or outlet velocities at any culvert location.
6. Caltrans has not observed the persistence and proliferation of sterile erosion control seed mixes on Caltrans projects. However, during a site visit with State Parks, several alternatives to using a sterile seed mix for erosion control were discussed and viewed at recent projects. Since all sites within or adjacent to State Parks land are within the North Coast conifer belt, Caltrans' revegetation specialists believe it would be appropriate to utilize shredded redwood bark mulch for erosion control along with wattles and natural log erosion barriers instead of hydroseeding at these locations. Caltrans will continue coordinating with State Parks on this as the project moves through the process in the phase.
7. Compensatory mitigation impacts to wetlands would be part of the permitting process during the next phase of the project. These details would be finalized in coordination with the regulatory agencies prior to construction. For this project, the majority of impacts are considered minor and temporary as they would be restored at the end of construction at that location.

Comments from Property Owner, Jeannie Geschke Hanley, Received 7/11/2025

I have reviewed the Del Norte Culvert Rehabilitation Proposal Negative Impact Statement from May 2025.

I am offering comments only on the PM 37.46 site location in that proposal.

I am a frontage property owner on the East side of US Hwy 101 at that location.

I am in positive support of the bridge construction proposal as presented in May 2025. It specified that further survey data and right-of-way research needs to be completed. I reserve the privilege of commenting on that work when it is released for review.

DETAIL COMMENTS:

1. Northbound Hwy 101 lane direction destination labels of "Crescent City" need to be corrected. PM 37.46 is located approximately 11 miles north of Crescent City.

2. The lane accessing Hwy 101 on the East side is labeled "Evert Sargent Lane". That is an incorrect label carried forward, I believe, from Google Maps. This lane on the East side of Hwy 101 at PM 37.50 is in fact unnamed. This unnamed lane is entirely contained on property that I own. If a name is required I would make a proposal to the appropriate entity when notified. (The correct location of Evert Sargent Lane is several miles south of this location intersecting to the North of Kings Valley Road per County of Del Norte Department of Information Technology: webmaster@codelnorte.ca.us)

3. I encourage termination of an unpermitted pipeline crossing under US Hwy 101 within this PM 37.46 project location.

4. I encourage closure of the tunnel under US Hwy 101 included in the PM 37.46 project location even if the proposal is altered to delete bridge construction and install an alternate culvert proposal.

Caltrans Response to Jeannie Geschke Hanley

Thank you for taking the time to submit formal comments.

1. The layouts in Appendix A have been corrected to reflect this on all layout pages for Location 16, Post Mile 37.46.

2. The layouts in Appendix A have been corrected to reflect that this lane is unnamed on all layout pages for Location 16, Post Mile 37.46 . Thank you for taking the time to confirm this.

3. This comment has been submitted to the Caltrans Right of Way and Encroachment Permits divisions.

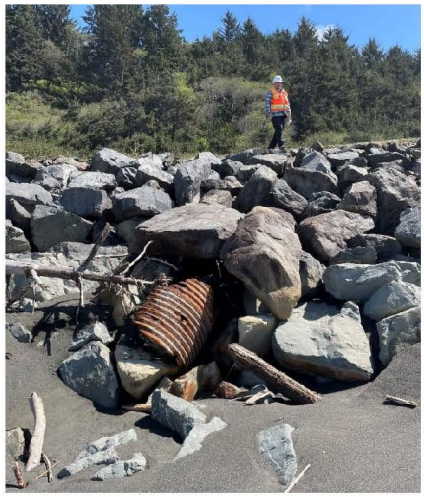
4. This location will move forward with a bridge to remove fish passage barriers as proposed in this document, and remove the tunnel/cattle crossing.

Appendix E. Section 4(f) *de minimis*



CULVERT REHABILITATION AND FISH PASSAGE PROJECT

Section 4(f) *de minimis* Evaluation



DEL NORTE COUNTY, CALIFORNIA

DISTRICT 1 – DN – 101 — Post Miles M0.0 to 46.5

EA 01-0K690 / EFIS 0120000135

Prepared by the
State of California Department of Transportation

The environmental review, consultation, and any other actions required by applicable Federal laws for this project are being, or have been, carried out by Caltrans pursuant to 23 USC 326.

November 2025



General Information About This Document

What is in this document?

The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration (FHWA), has prepared this Section 4(f) *de minimis* Evaluation which examines the potential uses of public resources and impacts of the Culvert Rehabilitation and Fish Passage Project on U.S. Highway 101 in Del Norte County, California.

Caltrans is the lead agency under the National Environmental Policy Act (NEPA). This document tells you why the project is being proposed, how the existing environment could be affected by the project, the potential impacts of the project, and proposed avoidance, minimization, and/or mitigation measures.

What you should do:

- Please read this document.
- Technical studies can be made available upon request.
- This document may be downloaded at the following website: https://tinyurl.com/dn101culverts
- We'd like to hear what you think. If you have any comments about the proposed project, please send your written comments to Caltrans by the deadline, **December 15, 2025.**
- Please send comments via U.S. mail to:

  California Department of Transportation
  North Region Environmental –District 1
  Attention: Rachel Conway
  1656 Union Street
  Eureka, CA 95501

- Send comments via e-mail to: DN101culvertrehab@dot.ca.gov

Alternate Formats

For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Myles Cochrane, North Region Environmental-District 1, 1656 Union Street, Eureka, CA 95501; (707) 445-6600 Voice, or use the California Relay Service 1 (800) 735-2929 (TTY to Voice), 1 (800) 735-2922 (Voice to TTY), 1 (800) 855-3000 (Spanish TTY to Voice and Voice to TTY), 1-800-854-7784 (Spanish and English Speech-to-Speech) or 711.

CULVERT REHABILITATION AND FISH PASSAGE PROJECT

Rehabilitate drainage systems and provide fish passage on U.S. Highway 101 in Del Norte County between Post Miles M0.0 and 46.5

Section 4(f) *de minimis* Evaluation

Submitted Pursuant to:

49 USC 303

THE STATE OF CALIFORNIA

Department of Transportation

11/10/2025
Date of Approval

Liza Walker
Liza Walker, Office Chief
North Region Environmental–District 1
California Department of Transportation
NEPA Lead Agency

The following person may be contacted for more information about this document:

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Rachel Conway, Environmental Coordinator
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Eureka, CA 95501
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or use the California Relay Service TTY number, 711, or 1-800-735-2922



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SECTION 1. SECTION 4(F) *DE MINIMIS* EVALUATION

1.1 Introduction

The Culvert Rehabilitation and Fish Passage Project (EA 01-0K690) is a project proposed by the California Department of Transportation (Caltrans) to rehabilitate culverts and remediate fish passage at multiple locations on U.S. 101 between Post Miles (PMs) M0.0 and 46.5 in Del Norte County.

In support of the project, this analysis was prepared to address Section 4(f) of the U.S. Department of Transportation Act, which requires that proposed transportation use of any land from a significant publicly owned land of a public park, recreation area, wildlife and waterfowl refuge, or public or private historic site that is on or eligible for the National Register of Historic Places (NRHP) be avoided, if avoidance is feasible and prudent. In addition, a full evaluation of measures to minimize harm to that property must be made and documented.

This document identifies Section 4(f) resources in the project study area and describes the nature and extent of the potential effects on and uses of these properties, and discusses avoidance alternatives, measures to minimize harm, and coordination with the officials with jurisdiction.

1.2 Section 4(f) of the Department of Transportation Act

Section 4(f) of the Department of Transportation Act of 1966, codified in federal law at 49 United States Code (USC) 303, declares that "it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites."

Section 4(f) specifies that the Secretary of Transportation may approve a transportation program or project "…requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or land of an historic site of national, state, or local significance (as determined by the federal, state, or local officials having jurisdiction over the park, area, refuge, or site) only if:

1. There is no prudent and feasible alternative to using that land; and
2. The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use."

Section 4(f) further requires coordination with the Department of the Interior and, as appropriate, the involved offices of the Department of Agriculture and the Department of Housing and Urban Development in developing transportation projects and programs that use lands protected by Section 4(f). If historic sites are involved, then coordination with the State Historic Preservation Officer is also needed.

Responsibility for compliance with Section 4(f) has been assigned to Caltrans pursuant to 23 USC 326 and 327, including determinations and approval of Section 4(f) evaluations, as well as coordination with those agencies that have jurisdiction over a Section 4(f) resource that may be affected by a project action.

1.2.1 Use of Section 4(f) Resources

The term "use"—as it relates to Section 4(f)—is an adverse impact to, or occupancy of, a Section 4(f) resource, and is defined in 23 Code of Federal Regulations (CFR) 774.17. Section 4(f) resources include publicly owned public parks, recreational areas of national, state, or local significance, wildlife or waterfowl refuges, or lands from a historic site of national, state, or local significance. In general, a "use" occurs when there is permanent incorporation, temporary occupancy, or constructive use of a Section 4(f) resource.

Permanent Incorporation

Land is considered permanently incorporated into a transportation project when right of way (ROW) has been acquired, or if sufficient property interests otherwise have been obtained, such as a permanent easement.

Temporary Occupancy

Temporary occupancy is considered a use when a Section 4(f) property is required for project construction-related activities, and the activity is considered to be adverse in terms of the preservation purpose of Section 4(f). If temporary occupancies of properties are minimal, such as temporary construction easements, they may not constitute a use. Under 23 CFR 774.13(d), there is no Section 4(f) use if the following criteria are met:

1. The duration is temporary; i.e., less than the time needed for construction of the project, and there should be no change in ownership of the land;
2. The scope of the work is minor; i.e., both the nature and the magnitude of the changes to the Section 4(f) property are minimal;
3. There are no anticipated permanent adverse physical impacts, nor would there be interference with the protected activities, features, or attributes of the property on either a temporary or permanent basis;
4. The land being used must be fully restored; i.e., the property must be returned to a condition which is at least as good as that which existed prior to the project; and
5. There must be documented agreement of the official(s) with jurisdiction over the Section 4(f) resource regarding the above conditions.

Constructive Use

A constructive use of a Section 4(f) resource occurs when a transportation project does not permanently incorporate or temporarily use a protected resource, but the proximity of the project results in impacts (e.g., noise, vibration, visual, access restrictions, ecological intrusions) that are so severe that the protected activities, features, or attributes that qualify the resource for protection under Section 4(f) are substantially impaired, even after the incorporation of mitigation (23 CFR 774.15).

1.2.2 *de minimis* Determination

This document discusses *de minimis* impact determinations under Section 4(f). Section 6009(a) of SAFETEA-LU amended Section 4(f) legislation at 23 United States Code (USC) 138 and 49 USC 303 to simplify the processing and approval of projects with only de minimis impacts on lands protected by Section 4(f). This amendment provides that once the U.S. Department of Transportation (USDOT) determines that a transportation use of Section 4(f) property, after consideration of any impact avoidance, minimization, and mitigation or enhancement measures, results in a de minimis impact on that property, an analysis of avoidance alternatives is not required, and the Section 4(f) evaluation process is complete. FHWA's final rule on Section 4(f) de minimis findings is codified in 23 Code of Federal Regulations (CFR) 774.3 and CFR 774.17.

Responsibility for compliance with Section 4(f) has been assigned to the Department of Transportation (Caltrans) pursuant to 23 USC 326 and 327, including de minimis impact determinations, as well as coordination with those agencies that have jurisdiction over a Section 4(f) resource that may be affected by a project action.

1.2.3 Applicability and Findings

The following documentation demonstrates that criteria for the Section 4(f) have been applied and are appropriate for this action.

The impacts of a transportation project on a park, recreation area, or wildlife and waterfowl refuge that qualifies for Section 4(f) protection may be determined to be de minimis if:

1. The transportation use of the Section 4(f) resource, together with any impact avoidance, minimization, and mitigation or enhancement measures incorporated into the project, does not adversely affect the activities, features, and attributes that qualify the resource for protection under Section 4(f);

2. The official(s) with jurisdiction over the property are informed of FHWA's or FTA's intent to make the de minimis impact finding based on their written concurrence that the project would not adversely affect the activities, features, and attributes that qualify the property for protection under Section 4(f); and

3. The public has been afforded an opportunity to review and comment on the effects of the project on the protected activities, features, and attributes of the Section 4(f) resource.

1.3 Proposed Project

1.3.1 Project Location

The project is located on U.S. Highway 101 (US 101) in Del Norte County between Post Miles (PMs) M0.0 and 46.5 (Figures 1 and 2).

1.3.2 Purpose

The purpose of this project is (1) to rehabilitate existing drainage systems to a state of good condition, and (2) to remediate barriers to fish passage.

1.3.2 Need

The project is needed to repair deteriorating or failing drainage systems to prevent erosion and potential roadway embankment failure. Additionally, conditions resulting in barriers to fish passage exist within the project limits. These barriers require remediation per Senate Bill 857 because they prevent fish from accessing habitat that is necessary for survival and spawning during various life stages.

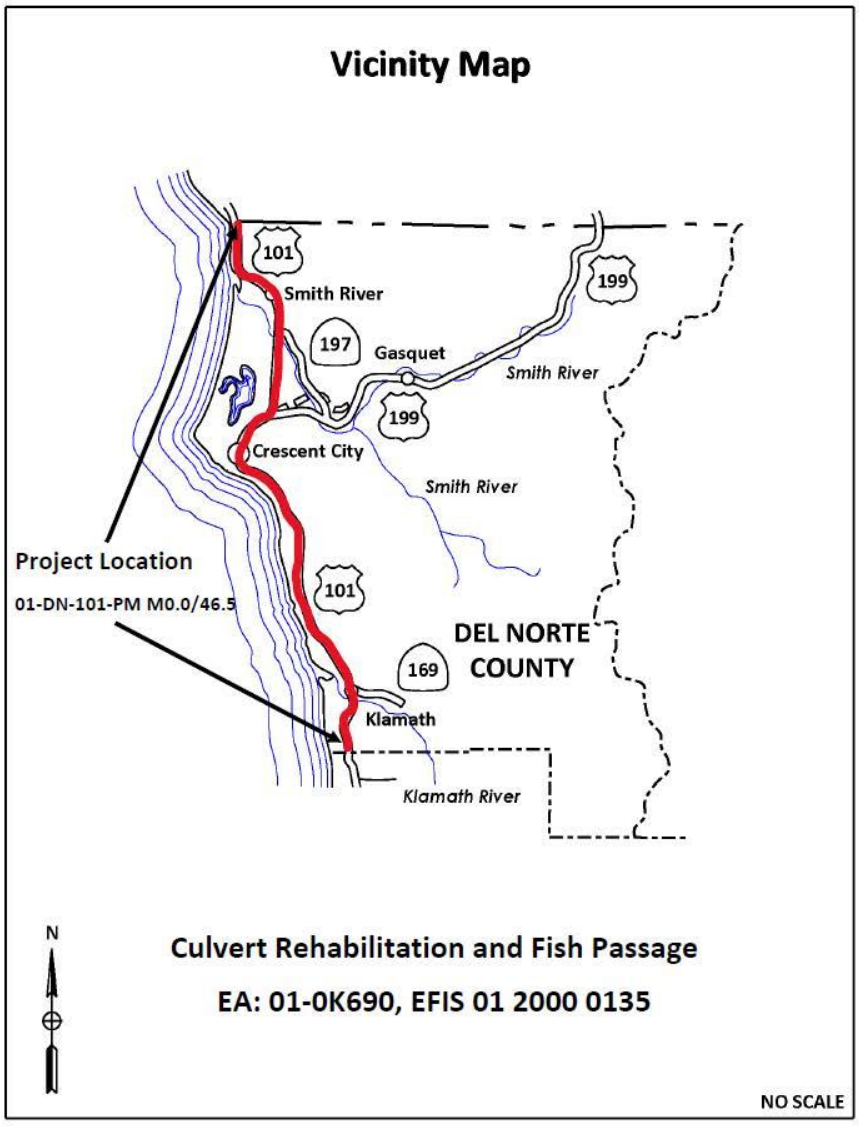


Figure 1. Project Vicinity Map

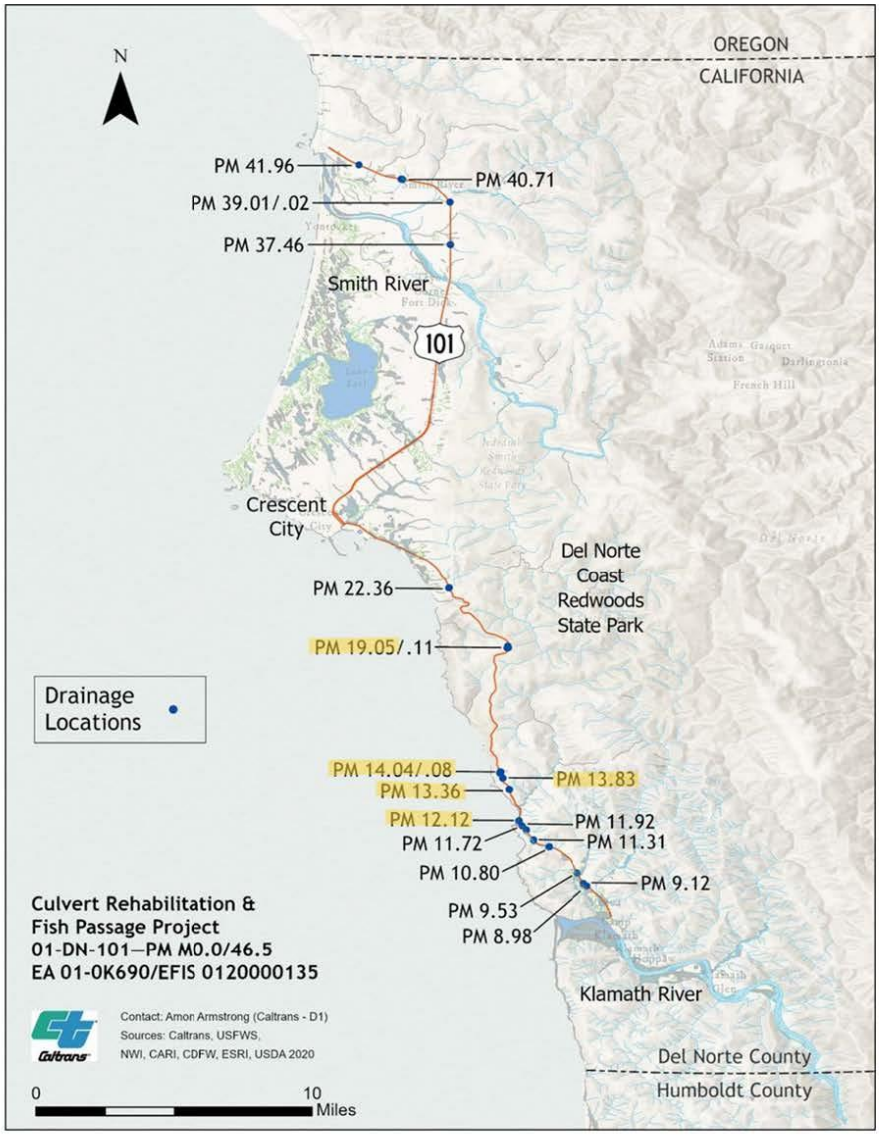


Figure 2. Project Location Map and Drainage Locations, 4(f) Locations Highlighted

1.3.4 Project Description

Caltrans proposes to rehabilitate 19 drainage systems on U.S. Highway 101 (US 101) in Del Norte County from Post Miles (PMs) M0.0 to 46.5 (Figure 2). Most drainage systems would be rehabilitated by replacing culverts using the cut and cover method at depths of up to 20 feet. For deeper systems located at PMs 10.80 and 19.05, a trenchless method would be used for installation. Proposed work would include replacement of culverts, downdrains (DD), drainage inlets (DI), flared end sections (FES), headwalls, end walls, and disturbed pavement. Additionally, guardrail with concrete vegetation control strips, cable railing, rock slope protection (RSP) and rock-lined ditches would be installed. At the proposed bridge location (PM 37.46), shoulder widening would occur, including additional paving and removal of a concrete-lined ditch adjacent to the highway.

Based on hydraulic recommendations, existing culverts would either be replaced in-kind or increased in diameter. At three locations, existing culverts would be replaced with larger reinforced box culverts to better convey flows and improve wildlife crossing. Culverts at multiple locations would be shortened ("daylighted"), increasing runoff filtration through larger infiltration capacity and improving aquatic habitat in some locations (Caltrans 2025b).

Fish passage remediation would occur at two locations:

(1) at PM 37.46, a priority fish passage location would be remediated by constructing a single-span bridge

(2) at PM 40.71, a 36-inch-diameter culvert would be replaced with a 12-foot-wide bottomless box culvert

If water is present during construction, dewatering and water diversion would be necessary at several locations. Vegetation clearing and grubbing, branch trimming, and/or removal of trees would be required at some locations for construction access and culvert replacement activities. To replace vegetation removed and to provide soil stabilization and erosion control, revegetation would occur within disturbed soil areas. Examples of revegetation could include erosion control seeding, natural regeneration, and planting. Temporary erosion control would be included to meet water quality requirements. The project would be constructed in conformance with a Stormwater Pollution Prevention Program. Refer to project layout sheets for the scope and limits of proposed work (Attachment A).

To complete work, lane closures would be necessary at multiple locations. Work at these locations would be carried out using half-width construction (a staged construction sequence) and a temporary signal system. Equipment and materials staging would occur within the closed lane and shoulders. Most of the work would occur within the existing State right of way. Some locations would involve work within existing drainage easements. Temporary construction easements (TCE) from adjacent property owners would be required at five locations. Utility relocations would not be needed.

Of the 19 locations, two are within the jurisdiction of the National Park Service and six are within the jurisdiction of California State Parks and are therefore considered 4(f) resources. These locations are evaluated as 4(f) resources for their respective agencies in Section 2 and Section 3 of this document.

Table 1. Drainage System Locations within State and/or National Park Jurisdiction

Location (Post Mile)	California State Parks	National Park Service
12.12	ROW of US 101	---
13.36	ROW of US 101	---
13.83	ROW of US 101	Northbound side of US 101
14.04	Southbound side and ROW of US 101	Northbound side of US 101
14.08	ROW of US 101	---
19.05	Northbound side of US 101	---
TOTAL	**6**	**2**

1.3.5 No-Build Alternative

Under the No-Build Alternative, no work would be done on the existing highway; existing conditions would persist, including the continuation of emergency repairs and enhanced maintenance.

1.4 Determining Section 4(f) Resources

For Section 4(f) to apply to a federally funded transportation project, 1) the project must involve a resource that is protected by the provisions of Section 4(f) and 2), there must be a use of that resource.

Protected resources include publicly owned parks, recreational areas of national, state or local significance, wildlife or waterfowl refuges, or lands from a historic site of national, state or local significance.

"Historic sites" includes any prehistoric or historic district, site, building, structure, or object included in or eligible for inclusion in the National Register of Historic Places (NRHP) (23 CFR 774.17). Unlike other Section 4(f) properties, historic sites do not require public ownership to qualify for protection under Section 4(f). Archaeological sites may be exempt for Section 4(f) if the sites do not warrant protection in place (23 CFR 774.13).

1.5 Section 4(f) Resources in the Study Area

The majority of drainage system locations are within Caltrans right of way (ROW), where Caltrans or State Parks own the fee interest. A fee interest refers to the legal possession of both the surface and mineral rights for a property, with legal rights to that property held by whoever has the fee interest. National Park Service (NPS) does not have a fee interest in the Caltrans ROW at any locations, and NPS resources are only at locations where work would extend beyond the existing ROW area. California State Parks (CSP) does have a fee interest in the ROW from Post Miles 12.12 to 14.08; however, per the 1928 easement, Caltrans has "the right to remove all trees, growths, and road building material within said right of way, and use the same in such manner as it may deem proper in construction or maintenance work" (County of Del Norte 1928).

Table 2. Agency, Permit/Approval Needed and Status

Agency	Permit/Approval	Status
California Department of Fish and Wildlife (CDFW)	1602 Lake and Streambed Alteration Agreement	Obtain after Final Environmental Document (FED) approval
CDFW	California Endangered Species Act Consistency Determination or Incidental Take Permit	Obtain after FED approval, if warranted by final project design
National Marine Fisheries Service (NMFS)	Individual Section 7 Consultation	Initiate after Draft Environmental Document (DED) circulation
Regional Water Quality Control Board (RWQCB)	Clean Water Act Section 401 Water Quality Certification	Obtain after FED approval
U.S. Army Corps of Engineers (USACE)	Section 404 authorization (Nationwide permit) for work in Waters of the United States	Obtain after FED approval
U.S. Fish and Wildlife Service (USFWS)	USFWS 2022 Programmatic Letter of Concurrence (PLOC)	Initiate consultation after DED circulation
California Coastal Commission (CCC) or Local Jurisdiction	Coastal Development Permit	Obtain after FED approval
National Park Service	Section 4(f) Determination	Obtain before FED circulation
California Department of State Parks	Section 4(f) Determination	Obtain before FED circulation
California Department of State Parks	Right of Entry Permit	Obtain after FED approval
California Department of State Parks	Transfer of Jurisdiction	Obtain after FED approval

Section 2. National Parks Resources

The following is a discussion of the 4(f) resource, environmental setting, scope of work, uses, and analysis for each of the locations under the jurisdiction of the National Park Service.

PM 13.83

Environmental Setting

Work at the drainage system at PM 13.83 extends beyond the Caltrans right of way on the northbound side of US 101 within National Parks jurisdiction (APN 127-050-008). This location is also within the Coastal Zone. This drainage system and inlet are dominated by red alder forest and red alder/salmonberry-red elderberry forest on moderately sloping terrain (Caltrans 2025a). There are no known trails at or adjacent to the site. The system provides passage for ephemeral flows under the highway from east to west. These flows continue to the Pacific Ocean, approximately 1,400 feet west.

Scope of Work

The scope of work would include removal of a flared end section (FES), removal of two headwalls and an 18"-diameter x 40.9'-long culvert, removal of a 24" diameter x 68'-long culvert, and removal of a 24" diameter x 53.6' long downdrain. A rock-lined ditch would be installed to replace the 18"-diameter x 40.9'-long culvert, a new flared end section would be installed, the 24"-diameter x 68'-long culvert would be upsized to a 30"-diameter x 79.4'-long culvert under the roadway, and a 30"-diameter x 42.5'-long downdrain would be installed with anchor assembly.

The portion of work that would occur within National Parks jurisdiction would include:

- Removal of two headwalls and the 18"-diameter x 40.9'-long culvert
- Clear water diversion at inlet
- Installation of a rock-lined ditch above the inlet
- Minor vegetation removal (red alder forest) at the inlet

- Implementation of a Revegetation Plan would address invasive ivy present at the inlet where the rock-lined ditch would be installed. This plan would be prepared after the Final Environmental Document is approved.

Work for this location is expected to take approximately six (6) working days.

Use

Uses at this location would include:

- Establishment of a new permanent drainage easement, without a transfer of jurisdiction: 697.18 square feet
- Temporary access during construction (TCE): 11,126.42 square feet

The total permanent area of use on National Parks land would be approximately 175 square feet, due to the rock-lined ditch replacing an existing culvert.

The uses at this location would not adversely affect the activities, features, and attributes of the National Park resource because the activities are temporary, of short duration, and would improve the drainage system that transports flows through the Park, reducing negative downstream effects. The site is not adjacent to a known trail, campground, or other Park facilities; access to Park facilities would not be impacted. For these reasons, the *de minimis* finding can be made.

PM 14.04

Environmental Setting

Work at the drainage system at PM 14.04 extends beyond the Caltrans right of way on the northbound side of US 101 within National Parks jurisdiction (APN 127-050-008). This location is also within the Coastal Zone. This drainage system and inlet are dominated by red alder forest and red alder/salmonberry-red elderberry forest on moderately sloping terrain (Caltrans 2025a). There are no known trails at or adjacent to the site. The system provides passage for ephemeral flows under the highway from east to west. These flows continue to the Pacific Ocean, approximately 1,600 feet west.

Scope of Work

The portion of work that would occur within National Parks jurisdiction would include:

- Removal of a headwall, a 24"-diameter x 61.2'-long corrugated steel pipe culvert, and removal of an inlet
- Installation of a 58'-long, 6'-wide, and 2.7'-deep rock-lined ditch
- Installation of a G1 drainage inlet for the new inlet
- Minor vegetation removal (red alder forest)

Work for this location is expected to take approximately six (6) working days.

Use

Uses at this location would include:

- Temporary access during construction (TCE): 4,564.17 square feet

The total permanent area of use on National Parks land would be approximately 240 square feet due to the rock-lined ditch replacing an existing culvert.

The uses at this location would not adversely affect the activities, features, and attributes of the National Park resource because the activities are temporary, of short duration, and would improve the drainage system that transports flows through the Park, reducing negative downstream effects. The site is not adjacent to a known trail, campground, or other Park facilities; access to Park facilities would not be impacted. For these reasons, the *de minimis* finding can be made.

Section 3. State Parks Resources

The following is a discussion of the 4(f) resource, environmental setting, scope of work, uses, and analysis for each of the locations within State Parks jurisdiction.

PM 12.12

Environmental Setting

Work at the drainage system at PM 12.12 is entirely within the Caltrans right of way on both the northbound and southbound sides of the highway. This location is within the Coastal Zone. The fee interest in the right of way area at this location is held by California State Parks; all work at this location is described below. This location outlets onto a sandy beach, and the inlet is dominated by Sitka spruce forest and woodland with adjacent Sitka willow thickets (Caltrans 2025a). There are no known trails at or adjacent to the site that would be impacted by work at this location. The system provides passage for ephemeral flows under the highway from east to west. These flows continue to the Pacific Ocean, approximately 50 feet west.

Scope of Work

The scope of work would include removal of impervious surface within the existing pullout on the northbound side of the highway (approximately 750 square feet), installation of 0.10' thick fresh asphalt concrete overlay at the edge of pavement, installation of a new graveled infiltration area (approximately 5,000 square feet), and installation of an earthen berm to contain and direct hillside run-off to an existing vegetated infiltration area. At the culvert, there would be removal of a flared end section, removal of a 36"-diameter x 85.9'-long culvert, minor vegetation removal at the inlet, and installation of a 42"-diameter alternative flared end section and installation of a 42"-diameter x 85.9'-long alternative pipe culvert.

All work at this location would occur within CSP jurisdiction.

Work for this location is expected to take approximately eight (8) working days.

Use

There would be no use of a 4(f) resource at this location per the language of the 1928 easement. While CSP does have a fee interest in the ROW at PM 12.12 per the 1928 easement, Caltrans has "the right to remove all trees, growths, and road building material within said right of way, and use the same in such manner as it may deem proper in construction or maintenance work" (County of Del Norte 1928). Work at this location would involve minor vegetation removal and road building material within the right of way; therefore, would not constitute a use of State Parks 4(f) resources.

A nearby scenic vista and parking lot would not be affected by project construction. The site is not directly adjacent to a known trail, campground, or other Park facilities; access to Park facilities would not be impacted. For these reasons, the *de minimis* finding can be made.

PM 13.36

Environmental Setting

Work at the drainage system at PM 13.36 is entirely within the Caltrans right of way on both the northbound and southbound sides of the highway. This location is also within the Coastal Zone. The fee interest in the right of way at this location is held by State Parks. All work at this location is described below.

Both the inlet and outlet at this location are densely vegetated. This drainage system and outlet are dominated by red alder forest and red alder/salmonberry-red elderberry forest on moderately sloping terrain (Caltrans 2025a). There are no known trails at or adjacent to the site that would be impacted by work at this location. The system provides passage of ephemeral flows under the highway from east to west. These flows continue to the Pacific Ocean, approximately 1,400 feet west.

Scope of Work

The scope of work would include removal of a headwall, removal of a 24"-diameter x 123.2'-long culvert, and minor vegetation removal; installation of a headwall, a 24"-diameter x 123.2'-long alternative pipe culvert, and a 6'-wide x 24'-long gravel pad with refreshed rock slope protection (RSP).

All work at this location would occur within CSP jurisdiction.

Work for this location is expected to take approximately three (3) working days.

Use

There would be no use of a 4(f) resource at this location per the language of the 1928 easement. While California State Parks does have a fee interest in the right of way at PM 13.36, per the 1928 easement, Caltrans has "the right to remove all trees, growths, and road building material within said right of way, and use the same in such manner as it may deem proper in construction or maintenance work" (County of Del Norte 1928). Work at this location would include minor vegetation removal and work on road building material within the right of way; therefore, would not constitute a use of State Parks 4(f) resources.

A nearby scenic vista and paved pull-out area would not be affected by project construction. The site is not directly adjacent to a known trail, campground, or other Park facilities; access to Park facilities would not be impacted. For these reasons, the *de minimis* finding can be made.

PM 13.83

Environmental Setting

Work at the drainage system at PM 13.83 is within the Caltrans right of way on the southbound side of the highway. This location is also within the Coastal Zone. The fee interest in the right of way area at this location is held by California State Parks. All work within the right of way at this location is described below.

This drainage system is dominated by red alder forest and red alder/salmonberry-red elderberry forest on moderately sloping terrain (Caltrans 2025a). There are no known trails at or adjacent to the site. The system provides passage of ephemeral flows under the highway from east to west. These flows continue to the Pacific Ocean, approximately 1,500 feet west.

Scope of Work

For a complete description of all work proposed at this location, please see Section 2, PM 13.83, Scope of Work. The majority of work would occur within State Parks jurisdiction, aside from the bulleted items in Section 2.

Use

There would be no use of a 4(f) resource at this location per the language of the 1928 easement. While CSP does have a fee interest in the ROW at PM 13.83, per the 1928 easement, Caltrans has "the right to remove all trees, growths, and road building material within said right of way, and use the same in such manner as it may deem proper in construction or maintenance work" (County of Del Norte 1928). Work at this location would include minor vegetation removal and work on road building material within the right of way; therefore, would not constitute a use of State Parks 4(f) resources.

The site is not adjacent to a known trail, campground, or other Park facilities; access to Park facilities would not be impacted. For these reasons, the *de minimis* finding can be made.

PM 14.04

Environmental Setting

Work at the drainage system at PM 14.04 extends beyond the Caltrans right of way on the southbound side of US 101 within State Parks jurisdiction (APN 127-050-007). The RSP pad that extends beyond the outlet is partially within the North Coast Redwoods District of California State Parks. This location is also within the Coastal Zone. This drainage system and outlet are dominated by red alder forest and red alder/salmonberry-red elderberry forest on moderately sloping terrain (Caltrans 2025a). There are no known trails at or adjacent to the site. The system provides passage of ephemeral flows under the highway from east to west. These flows continue to the Pacific Ocean, approximately 1,600 feet west.

Scope of Work

For a complete description of all work proposed at this location, please see Section 2, PM 14.04, Scope of Work. The majority of work would occur within State Parks jurisdiction, aside from the bulleted items in Section 2.

Work within CSP jurisdiction outside of the Caltrans right of way would include:

- Installation of an RSP pad, with up to 10'-wide x 10'-long of the pad outside of the Caltrans right of way and within State Parks

Work for this location is expected to take approximately six (6) working days.

Use

The total area of use on State Parks land would be up to 100 square feet for the placement of rock slope protection. Uses at this location would include:

- Right of Entry (ROE) Permit
- Establishment of a permanent drainage easement, with a transfer of jurisdiction (TOJ)
- Temporary access during construction (TCE): 200 square feet

There would be no use of a 4(f) resource within the Caltrans right of way at this location per the language of the 1928 easement. While CSP does have a fee interest in the ROW at PM 14.04, per the 1928 easement, Caltrans has "the right to remove all trees, growths, and road building material within said right of way, and

use the same in such manner as it may deem proper in construction or maintenance work" (County of Del Norte 1928). Work within the Caltrans right of way at this location would include minor vegetation removal and work on road building material within the right of way; therefore, would not constitute a use of State Parks 4(f) resources.

The site is not adjacent to a known trail, campground, or other Park facilities; access to Park facilities would not be impacted. For these reasons, the *de minimis* finding can be made.

PM 14.08

Environmental Setting

Work at the drainage system at PM 14.08 is within the Caltrans right of way. This location is also within the Coastal Zone. This drainage system and inlet are dominated by red alder forest and red alder/salmonberry-red elderberry forest on moderately sloping terrain (Caltrans 2025a). There are no known trails at or adjacent to the site. The system provides passage for ephemeral flows under the highway from east to west. These flows continue to the Pacific Ocean, approximately 1,600 feet west.

Scope of Work

The scope of work at PM 14.08 would include removal of the existing inlet, installation of a G1 drainage inlet, removal of an 18"-diameter x 66'-long alternative pipe culvert, installation of a 24"-diameter x 66'-long alternative pipe culvert, installation of a rock slope protection pad at outlet up to 6'-wide, 14'-long, and 2'-deep.

Work within CSP jurisdiction would include all work at this location.

Work for this location is expected to take approximately three (3) working days.

Use

There would be no use of a 4(f) resource at this location due to the language of the 1928 easement. While CSP does have a fee interest in the ROW at PM 14.08, per the 1928 easement, Caltrans has "the right to remove all trees, growths, and road building material within said right of way, and use the same in such manner as it may deem proper in construction or maintenance work" (County of Del Norte 1928). Work at this location would include tree and minor vegetation removal, along with work on road building material within the right of way; therefore, would not constitute a use of State Parks 4(f) resources.

The site is not adjacent to a known trail, campground, or other Park facilities; access to Park facilities would not be impacted. For these reasons, the *de minimis* finding can be made.

PM 19.05

Environmental Setting

The drainage system at PM 19.05 is within CSP jurisdiction (APN 126-070-001) on the northbound side of the highway. This location is not in the Coastal Zone. The lower part of the drainage system and outlet are on moderately sloping terrain adjacent to the North Coast Redwoods District of California State Parks. A small portion of the rock slope protection pad at the culvert outlet could extend beyond the Caltrans right of way and into CSP jurisdiction. The site is dominated by redwood forest and woodland (Caltrans 2025a). There are no known trails at or adjacent to the site. The system provides passage of perennial flows under the highway from

west to east. These flows continue to West Branch Mill Creek, approximately 0.8 mile east (Caltrans 2025a).

Scope of Work

This location would involve the trenchless installation of a culvert that flows under the highway. A new 42"-diameter x 128.4'-long welded steel pipe culvert would be installed with an attached 42"-diameter x 68.5'-long alternative pipe culvert downdrain. Approximately 1,400 square feet of RSP and fill material would be installed at the inlet, with another 288 square feet of RSP for energy dissipation and scour protection installed at the outlet. This location would require construction of temporary roads to access both the inlet and outlet, would require up to a 30'-wide x 50'-long pad for the trenchless installation on the inlet side, and would involve the removal of small trees on both sides. Trees to be removed would remain onsite and would include tan oak, Douglas fir, and coastal redwood. The majority of the existing culvert would be abandoned in place, with a 24"-diameter x 10'-long section removed from the inlet, a 24"-diameter x 20'-long section removed from the outlet, and a 24"-diameter x 186.7'-long corrugated steel pipe culvert abandoned in place.

Work within CSP jurisdiction would include:

- Installation of a 12'-wide x 24'-long x 4'-deep RSP pad at the downdrain outlet, with up to 10' of the total length within the jurisdiction of California State Parks

Work for this location is expected to take approximately 48 working days.

Use

The total area of use on CSP land would be up to 120 square feet for the placement of rock slope protection. Uses at this location would include:

- Right of Entry (ROE) permit
- Temporary access during construction (TCE): 399.44 square feet

There would be no use of a 4(f) resource within the Caltrans right of way at this location due to the language of the 1935 deed. CSP does not have a fee interest in the ROW at PM 19.05; as such, all work within the Caltrans right of way would not constitute a use of CSP 4(f) resources.

Work within the Caltrans right of way would not constitute use of a 4(f) resource, Caltrans will continue to coordinate on work within the Caltrans right of way adjacent to CSP properties.

The uses at this location do not adversely affect the activities, features, and attributes of the State Park 4(f) resource because the activities are temporary, of short duration, and would improve the drainage system that transports flows through the Park, reducing negative downstream effects. The site is not adjacent to a known trail, campground, or other Park facilities; access to Park facilities would not be impacted. For these reasons, the *de minimis* finding can be made.

Section 4

4.1 Easements Required

Tables 3 and 4 summarize the approximate size of the area at each location that would be subject to temporary construction easements and permanent easements for both the California State Parks and National Park Service.

Table 3. Permanent Easements and Temporary Construction Easements (TCE) Required on National Parks Land

Location (Post Mile)	Area (square feet)	Assessor Parcel Number	TCE	Permanent Easement
13.83	175	127-050-007	Yes	Yes
14.04	240	127-050-007	Yes	No

Table 4. Permanent Easements and Temporary Construction Easements (TCE) Required on California State Parks Land

Location (Post Mile)	Area (square feet)	Assessor Parcel Number	TCE	Permanent Easement
12.12	0	127-050-008 127-070-004	No	1928 Deed
13.36	0	127-050-008 127-050-007	No	1928 Deed
13.83	0	127-050-008 127-050-007	No	1928 Deed Drainage Easement
14.04	100	127-050-008 127-050-007	Yes	1928 Deed Drainage Easement
14.08	0	127-050-008 127-050-007	No	1928 Deed
19.05	120	126-070-001 126-070-003	Yes	1935 Deed

4.2 Traffic Delays

The project would generate short-term construction traffic and result in temporary lane closures. Construction traffic would be scheduled and routed to reduce congestion. The estimated maximum delay would be 10 minutes during flagging or the use of a temporary signal system and 20 minutes during intermittent closures when culverts are replaced. Bicyclists would be accommodated through the construction area at all times. A Contingency Plan and Emergency Response Access Plan would be required to prepare for and coordinate unanticipated delays and emergencies through the work zones. Emergency response agencies in the project area would be notified of the project construction schedule and would have access to US 101 throughout the construction period.

The Transportation Management Plan (TMP) would be tailored to minimize project-related traffic delays by the effective application of project-specific traffic abatement strategies, public and motorist information, demand management, incident management, system management, alternate route strategies, construction strategies, and other strategies. Given that traffic delays would be temporary and the same for all travelers through the project corridor (not disproportionately affecting visitors to California State and National parks), and delays would be minimized with careful planning, the *de minimis* finding can be made.

4.3 Minimization Measures

The scope of work at each location is limited to short-duration construction activities and the establishment of drainage easements, which should not adversely affect park resources. Standard Measures and Best Management Practices identified in Section 1.7 of the CEQA Initial Study with Proposed Negative Declaration (Caltrans 2025b) would be implemented, including:

- Protection of tree roots and the structural root zone of redwoods.
- Implementation of a Revegetation Plan to replace vegetation removed during construction.
- Any planting on State Parks land would comply with the *North Coast Redwoods District Genetic Integrity Guidelines for Revegetation, Seed Collection, and Propagation* dated April 13, 2003, in coordination with State Parks.

- Measures to minimize the spread and transport of invasive plant species.
- Bird protection measures, including limiting vegetation removal to the period outside of the bird breeding season to protect occupied nests and eggs.
- Implementation of a Transportation Management Plan (TMP) to minimize delays during peak travel periods and special events. The TMP would be updated throughout the life of the project to reflect changes in design, event schedules, and field conditions during construction. Every effort would be made to keep traffic flowing through areas of active construction.

To encourage communication between the appropriate Caltrans, California State Park, and National Park personnel prior to the scheduling of construction, the following measures are recommended:

- Caltrans would notify California State Parks and National Park Service after the construction contract has been awarded and the kickoff meeting has been held with the contractor to schedule a construction kickoff meeting with Caltrans, State Parks and National Park Service. At the kickoff meeting, (1) contact information would be exchanged between site personnel (Resident Engineer, Environmental Construction Liaison) and the appropriate California State Parks and National Park Service representatives and (2) discussion of scheduling of work at the locations discussed herein to minimize or avoid delays and inconvenience to the public related to construction activities.
- Caltrans would notify California State Parks and the National Park Service at least 5 working days prior to initiating work at each of the park locations.

4.4 Public Notice Process

Public noticing for this 4(f) evaluation has been conducted as described in the General Information section at the beginning of this document. Following the public review period, comments would be addressed and the Final 4(f) evaluation would be incorporated into the Final Environmental Document, currently anticipated to be complete February 2026.

5.0 Written Concurrence from the Jurisdictional Agency—National Park Service

The National Park Service is the agency with jurisdiction over the locations described in this evaluation (PMs 13.83 and 14.04).

- On June 26, 2023, a virtual meeting was held with National Park Service personnel Saylor Moss and Caltrans personnel Rachel Conway to discuss both agency's projects within the project limits.
- On March 20, 2025, a virtual site visit was presented to National Park Service personnel Chad Anderson, with Caltrans personnel Rachel Conway, Julie Price, and Tim Nelson present to discuss potential issues at each of the locations.
- On July 22, 2025, an in-person site visit was conducted with National Park Service personnel Chad Anderson, Stassia Samuels, Sarah Conway, and Caltrans staff Rachel Conway, Tim Nelson, Gabriel Adame, Jeffery Barrett, and Clayton Malmberg.

Feedback received has been incorporated into this evaluation. Written concurrence from National Park Service Sections 1, 2, and 4 of this Section 4(f) determination will be requested after the public notice period and after the public has had a chance to comment on the *de minimis* impact finding.

Name	Title
Signature	Date

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United States Department of the Interior

NATIONAL PARK SERVICE
Redwood National Park
1111 Second St.
Crescent City, CA 95531

IN REPLY REFER TO:
1B (REDW-8485)

March 19, 2026

Julie East
Branch Chief, E-1
California Department of Transportation
North Region Environmental, District 1
1656 Union Street
Eureka, CA 95501

Dear Julie East:

This letter responds to your request for the Department of the Interior's concurrence on a draft Section 4(f) *de minimis* impact finding for the Wilson Creek Restoration and SPGA Wall Project (EA: 01-0K690). The National Park Service (NPS) has reviewed the Section 4(f) *de minimis* Evaluation (November 2025) and the Initial Study/Negative Declaration (May 2025) for the project.

The proposed project involves the rehabilitation of drainage systems and improvements to fish passage along U.S. Highway 101 in Del Norte County, including work at two locations (PM 13.83 and PM 14.04) within the jurisdiction of Redwood National Park. The Section 4(f) evaluation identifies minor permanent and temporary easements at these locations, with activities limited to culvert replacement, installation of rock-lined ditches, and minor vegetation removal. The evaluation concludes that these actions will not adversely affect the activities, features, or attributes that qualify these park lands for protection under Section 4(f), and that all possible planning to minimize harm has been incorporated. The project will not significantly impact trails, campgrounds, or park facilities, and will implement revegetation and invasive species management measures. Public access and park resources are expected to be maintained throughout construction.

Caltrans has documented extensive prior consultation with both tribal and state partners throughout the environmental review process. Early and ongoing coordination included notification and outreach to the Native American Heritage Commission and local tribes, including Elk Valley Rancheria, Tolowa Dee-ni', Tolowa Nation, Yurok Tribe, and Pulikla Tribe of Yurok People. In addition, Caltrans coordinated with California State Parks, the National Park Service, California Department of Fish and Wildlife, North Coast Regional Water Quality Control Board, California Coastal Commission, County of Del Norte, CAL FIRE, the U.S. Fish and Wildlife Service, and the National Marine Fisheries Service. This consultation history is documented in the project's Initial Study/Negative Declaration and Section 4(f) Evaluation and is ongoing as the project advances.

NPS PRELIMINARY SECTION 4(f) EVALUATION COMMENTS

Based on the information provided, the O Men hee-puer/Daa-ghestlh-ts'a' Historic District and the contributing village site P-08-000007/CA-DNO-02/H appear to qualify as Section 4(f) resources for the purpose of this evaluation. While these historic properties are not addressed in the current draft 4(f)

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evaluation, we understand that Caltrans has taken steps to address this oversight. Specifically, Caltrans reached out to the appropriate tribes on February 25, 2026, providing a revised Historic Property Survey Report (HPSR) that included the historic district, and sent follow-up emails to the consulting tribes regarding this project. As of this date, no responses have been received from the tribes, and Caltrans has indicated that the project archaeologist will upload the updated consultation log into the project file folder.

Caltrans maintains that its finding of No Historic Properties Affected remains appropriate, and, that this finding does not require State Historic Preservation Officer (SHPO) concurrence under their Section 106 Programmatic Agreement (PA) Stipulation IX.A.2, which states: "If the Caltrans District finds … that historic properties are present but the undertaking will have no effect on them, the Caltrans District shall document and retain records of that finding in accordance with Stipulation XVIII" (page 11). Section 106 PA further directs the reader to The Standard Environmental Reference Volume 2: Cultural Resources for more detail. Caltrans SER Vol. 2 states a finding of No Historic Properties Affected applies to an undertaking when "there are historic properties in the APE, but the undertaking has no potential to affect them, either directly or indirectly" (Chapter 2: Cultural Resources Procedures Page 2:32; Chapter 5: Archaeological Resources Identification, Evaluation, Effects, and Treatment Page 5:52; Chapter 6: Built Environment Cultural Resources Evaluation and Treatment Page 6:31). As there are no contributing elements of the historic district within the project limits, the finding of No Historic Properties Affected is likely appropriate. However, because the historic district in question is ethnographic in nature, tribal input into this determination in imperative to NPS supporting a final determination of *de minimis*.

Given these circumstances, the NPS is prepared to concur with the finding of de minimis impact for the use of Section 4(f) resources at the identified locations within Redwood National Park, as described in the project documentation. However, this concurrence is contingent upon Caltrans receiving concurrence (or no response) from the consulting tribes regarding their determinations for the O Men hee-puer/Daa-ghestlh-ts'a' Historic District and the contributing village site. Should tribal concurrence not be obtained, or should new information arise that affects the evaluation of impacts to these historic properties, the NPS requests that Caltrans provide updated documentation for further review prior to finalizing the Section 4(f) determination.

If you have any questions or require further information, please contact Chad Anderson, Natural Resources Manager, Redwood National Park, at chad_anderson@nps.gov, or Christopher Johnson, Historian, Preservation Partnerships Program, National Park Service, Interior Regions 8, 9, 10, & 12 at christopher_e_johnson@nps.gov.

Sincerely,

Leonel Arguello

Leonel Arguello
Superintendent
Redwood National Park

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6.0 Written Concurrence from the Jurisdictional Agency—California State Parks

The California State Parks is the agency with jurisdiction over the locations described in this evaluation (PMs 12.12, 13.36, 13.83, 14.04, 14.08, 19.05).

- On September 3, 2024, a virtual meeting was held with CSP personnel Rosalind Litzky and Caltrans personnel Tim Nelson, Rachel Conway, Julie Price, and Julie East to discuss an overview of the project.
- On December 3, 2024, a virtual meeting was held with CSP personnel Rosalind Litzky and Caltrans personnel Tim Nelson, Rachel Conway, Julie Price, Gabriel Adame, Thorin Lynn, and Halley Aycock-Rizzo to discuss project designs at the various locations and coordinate an in-person site visit.
- On December 20, 2024, a virtual site visit was conducted with CSP personnel Mae McLean and Caltrans personnel Tim Nelson, Rachel Conway, and Julie Price to review and discuss each of the locations.
- On August 18, 2025, an in-person site visit was conducted with CSP personnel Rosalind Litzky, Mae Mclean, Timothy Masters and Caltrans personnel Tim Nelson, Rachel Conway, Gabriel Adame, and Jeffery Barrett.
- On September 24, 2025, an in-person site visit was conducted with CSP personnel Mae Mclean, Brian Hirt, Dalton Olson, Chelsea Osa and Caltrans personnel Wendell Bedell, Rachel Conway, and Amon Armstrong.

Feedback received has been incorporated into this evaluation. Written concurrence from California State Parks on Sections 1, 3, and 4 of this Section 4(f) determination will be requested after the public noticing period and after the public has had a chance to comment on the *de minimis* impact finding.

Victor Bjelajac	**District Superintendent**
Name	Title
Signed by: Victor Bjelajac A1F5EA3C0EE6403...	3/18/2026
Signature	Date

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Completed	Security Checked	3/18/2026 5:01:37 PM
Payment Events	**Status**	**Timestamps**

7.0 References

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_____. 2025b. DN 101 Culvert Rehabilitation and Fish Passage Project Draft Initial Study with Proposed Negative Declaration. May 2025. https://tinyurl.com/dn101culverts. Accessed October 9, 2025.

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County of Del Norte, Recorder's Office. Book of Deeds. 1935. Volume 54 of Deeds, pages 89-91. Hobbs, Wall, and Company & the State of California. August 20, 1935.

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A thriving and connected California.

March 9, 2026

Rosalind Litzky
California State Parks, North Coast Redwoods District
PO Box 2006
Eureka, CA 95502-2006

SUBJECT: Project EA 01-0K690 Section 4(f) *de minimis* Clarifications

Dear Ms. Litzky,

Thank you for meeting with us on December 11, 2025, to discuss the Section 4(f) *de minimis* document for the Culvert Rehabilitation and Fish Passage Project on Del Norte 101 (EA 01-0K690).

The following are clarifications to the Section 4(f) *de minimis* agreement discussed in that meeting. This letter will be attached to the final Section 4(f) agreement prior to signature.

- There will be no need for a Transfer of Jurisdiction at Post Mile 14.04. A Temporary Construction Easement (TCE) for construction of the rock-lined ditch, as well as a Right of Entry permit, will be sufficient. This is an update to page 20 of the Section 4(f) *de minimis* agreement.
- Page 25 of the Section 4(f) *de minimis* agreement, Section 4.1, Table 4, has been updated below to reflect the total square footage of the needed TCEs, as well as the total square footage of the rock slope protection (RSP) to be placed within the TCEs.

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Revised Table 4. Permanent Easements and Temporary Construction Easements (TCE) Required on California State Parks Land

Location (Post Mile)	RSP Area (square feet)	Assessor Parcel Number	TCE Area (square feet)	Permanent Easement
12.12	0	127-050-008 127-070-004	0	1928 Deed
13.36	0	127-050-008 127-050-007	0	1928 Deed
13.83	0	127-050-008 127-050-007	0	1928 Deed
14.04	200	127-050-008 127-050-007	516.5	1928 Deed
14.08	0	127-050-008 127-050-007	0	1928 Deed
19.05	120	126-070-001 126-070-003	399.44	1935 Deed

- Page 26, Section 4.2, Traffic Delays:
    - Caltrans continually reevaluates total time for traffic delays based on the number of projects occurring in a specific corridor. This project would be no exception, and would follow all guidelines as listed in the Section 4(f) *de minimis* document on page 26.
    - We recognize that traffic delays impact all users of our state highway system. Caltrans will continue to coordinate with California State Parks regarding traffic delays.
- Caltrans produces a weekly bulletin listing all planned roadwork. It is available at https://dot.ca.gov/caltrans-near-me/district-1/d1-popular-links/roadinformationbulletin. It is also emailed each week and any interested State Parks staff members can be added to the mailing list by contacting our Public Information Office at District.1.PIO@dot.ca.gov.

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- As discussed in writing with Mae McLean on February 18, 2026, as well as in the IS/ND formal response to comments, all aquatic species encountered during construction at project locations immediately adjacent to California State Parks land would be relocated to the nearest suitable habitat on California State Parks land.

We look forward to continuing coordination with you on this project. If you need additional information, please contact me at (707) 382-6467 or rachel.conway@dot.ca.gov.

Sincerely,

Julie East on behalf of

Rachel Conway
Environmental Scientist - Coordinator
Caltrans North Region Environmental

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