MAINTENANCE FACILITIES PROJECT

INITIAL STUDY

with Negative Declaration

HUMBOLDT COUNTY, CALIFORNIA

DISTRICT 1 – HUM – 96 — Post Mile R38.9

and

DISTRICT 1 – HUM – 299 — Post Mile R7.4

EA 01-0L770 / EFIS 0122000045

Prepared by the
State of California Department of Transportation

September 2025

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) which examines the potential environmental impacts of the Maintenance Facilities Project on State Route 96 and State Route 299 in Humboldt County, California. Caltrans is the lead agency under the California Environmental Quality Act (CEQA). 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.

The IS/ND circulated to the public between August 1, 2025, and September 3, 2025. Caltrans did not receive any written comments during this period and since the draft document circulation. Some minor editorial changes as well as some clarifications have been made since the publication of the Draft IS/ND. Where changes have been made that affect project scope or other content, the change is indicated in parenthesis following the new/modified text. Minor changes that do not affect content or meaning are not identified.

Additional copies of this document and the related technical studies are available for review at the Caltrans District 1 Office. This document may be downloaded at the following website:

https://dot.ca.gov/caltrans-near-me/district-3/d3-programs/d3-environmental/d3-environmental-docs/d3-humboldt-county

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, Attention: 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.

MAINTENANCE FACILITIES PROJECT

The project would improve transportation-related facilities at the Orleans Maintenance Station and near the town of Blue Lake at the Buckhorn CVEF.

Post Mile R38.9 on State Route 96 and Post Mile R7.4 on State Route 299
in Humboldt County, Caltrans District 1

INITIAL STUDY
with Negative Declaration

Submitted Pursuant to:

State: Division 13, California Public Resources Code

THE STATE OF CALIFORNIA
Department of Transportation

9/30/2025
Date of Approval

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

The following person may be contacted for more information about this document:

North Region Environmental–District 1
Breeanna Kalson
1656 Union Street
Eureka, CA 95501
(707) 672-3593

or use the California Relay Service TTY number, 711, or 1-800-735-2922

NEGATIVE DECLARATION

Pursuant to: Division 13, California Public Resources Code

State Clearinghouse Number: 2025080138

Project Description

The California Department of Transportation (Caltrans) proposes to improve transportation facilities at two sites in Humboldt County: State Route 96 (SR 96) at PM R38.9 and State Route 299 (SR 299) at PM R7.4.

At the first location (SR 96 at PM R38.9), the Orleans Maintenance Station in the community of Orleans, Caltrans proposes to replace the existing crew/equipment building, replace perimeter fencing, replace the existing septic leach field, add fire suppression infrastructure, and install electrical vehicle chargers.

At the second location (SR 299 at PM R7.4), the Buckhorn truck scale (Commercial Vehicle Enforcement Facility [CVEF]) site near the city of Blue Lake, Caltrans proposes to replace the California Highway Patrol scale office/shelter, replace a stormwater drainage inlet, and replace the weigh scale and scale pad.

Determination

This Negative Declaration (ND) is included to give notice to interested agencies and the public that it is Caltrans' intent to adopt an ND for this project. This does not mean that Caltrans' decision regarding the project is final. This ND is subject to change based on comments received by interested agencies and the public.

Caltrans has prepared an Initial Study for this project and, following public review, determined from this study that the proposed project would have *No Impact* on

- Aesthetics
- Agriculture and Forest Resources
- Air Quality
- Cultural Resources
- Energy

- Geology and Soils
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Wildfire
- Mandatory Findings of Significance

The proposed project would have *Less than Significant Impacts* to

- Biological Resources
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Utilities and Service Systems

Liza Walker

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

9/30/2025

Date

Table of Contents

NEGATIVE DECLARATION i

Table of Contents i

List of Appendices iii

List of Figures v

List of Tables v

Acronyms and Abbreviated Terms vii

Chapter 1 Proposed Project 1

1.1 Introduction/Project History 1

1.2 Purpose and Need 2

1.3 Project Description 3

1.4 Permits and Approvals Needed 20

1.5 Standard Measures and Best Management Practices Included in All Alternatives 20

1.6 Discussion of the NEPA Categorical Exclusion 30

Chapter 2. CEQA Environmental Checklist 32

2.1 Aesthetics 37

2.2 Agriculture and Forest Resources 39

2.3 Air Quality 41

2.4 Biological Resources 42

2.5 Cultural Resources 76

2.6 Energy 77

2.7 Geology and Soils 78

2.8 Greenhouse Gas Emissions 80

2.9 Hazards and Hazardous Materials 104

2.10 Hydrology and Water Quality 110

2.11 Land Use and Planning 112

2.12 Mineral Resources 113

2.13 Noise 114

2.14 Population and Housing 116

2.15 Public Services 117
2.16 Recreation 118
2.17 Transportation 119
2.18 Tribal Cultural Resources 121
2.19 Utilities and Service Systems 123
2.20 Wildfire 126
2.21 Mandatory Findings of Significance 128
2.22 Cumulative Impacts 130

Chapter 3. Agency and Public Coordination 131

Chapter 4. List of Preparers 133

Chapter 5. Distribution List 135

Chapter 6. References 137

List of Appendices

APPENDIX A. **ESL Maps / Project Layouts**

APPENDIX B. **Title VI Policy Statement**

APPENDIX C. **Project Plant and Animal Species Tables–Species with Potential to Occur**

APPENDIX D. **USFWS, NMFS, CDFW–CNDDB, and CNPS Species Lists**

List of Figures

Figure 1. Project Vicinity 4

Figure 2. Project Location Map - Orleans Maintenance Station 16

Figure 3. Project Location Map –- Buckhorn CVEF 19

Figure 4. U.S. 2021 Greenhouse Gas Emissions 84

Figure 5. California 2020 Greenhouse Gas Emissions by Economic Sector 85

Figure 6. Change in California Gross Domestic Product (GDP), Population, and GHG Emissions since 2000 85

Figure 7. Orleans MS Fire Hazard Severity Zone Map 100

Figure 8. Buckhorn CVEF Fire Hazard Severity Zone Map 101

List of Tables

Table 1. Agency, Permit/Approval Needed and Status 20

Table 2. Special Status Plant Species Occurring within the Environmental Study Limits 49

Table 3. Sound Levels of Proposed Construction Equipment 64

Table 4. Regional Greenhouse Gas Reduction Goals and Strategies 86

Table 5. CAL-CET Estimates (US tons) of GHG Emissions During Construction 89

Acronyms and Abbreviated Terms

Acronym/Abbreviation	Description
AB	Assembly Bill
ACM	Asbestos Containing Materials
ADA	Americans with Disabilities Act
APN	Assessor's Parcel Number
ASR	Archaeological Survey Report
AST	Above-ground Storage Tank
BMPs	Best Management Practices
BSA	Biological Study Area
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
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEHC	California Essential Habitat Connectivity
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
CHP	California Highway Patrol
CIA	Cumulative Impact Analysis
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CTP	California Transportation Plan
CVEF	Commercial Vehicle Enforcement Facility
CWA	Clean Water Act
dB	decibels
Department	Caltrans
DI	Drainage Inlet
DOC	Department of Conservation
DP	Director's Policy

Acronym/Abbreviation	Description
DPS	Distinct Population Segment
DSI	Detailed Site Investigation
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)
ESL	Environmental Study Limits
ESU	Evolutionarily Significant Unit
EV	electrical vehicle
ºF	degrees Fahrenheit
FED	Final Environmental Document
FESA	Federal Endangered Species Act
FHSZ	Fire Hazard Severity Zone
FHWA	Federal Highway Administration
FR	Federal Register
FRA	Federal Responsibility Area
FYLF	Foothill yellow-legged frog
GDP	Gross domestic product
GHG	greenhouse gas
GWP	Global Warming Potential
H&SC	Health & Safety Code
HFCs	hydrofluorocarbons
HCAOG	Humboldt County Association of Governments
HRER	Historical Resources Evaluation Report
IPaC	Information for Planning and Consultation (USFWS)
IS	Initial Study
ISA	Initial Site Assessment
IS/ND	Initial Study / Negative Declaration
IUCN	International Union for the Conservation of Nature
LCP	Lead Containing Paint
LUST	Leaking underground storage tank
MAMU	Marbled Murrelet
MBTA	Migratory Bird Treaty Act
MLD	Most Likely Descendent
MMT	million metric tons
MND	Mitigated Negative Declaration
MPO	Metropolitan Planning Organization

Acronym/Abbreviation	Description
MS	Maintenance Station
MSA	Magnuson-Stevens Fishery Conservation and Management Act
MT	metric tons
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
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRLF	Northern Red-legged Frog
NSO	Northern Spotted Owl
O_3	ozone
OCSD	Orleans Community Services District
OEMWW	Office of Electrical, Mechanical, Water, and Wastewater
OHWM	Ordinary High Water Mark
OPR	Governor's Office of Planning and Research
OSBCAP	Orleans-Somes Bar Community Action Plan
PBO	Programmatic Biological Opinion
PDT	Project Development Team
PLOC	Programmatic Letter of Concurrence (USFWS)
PM(s)	Post Mile(s)
Porter-Cologne Act	Porter-Cologne Water Quality Control Act
Project	Maintenance Facilities Project
PRC	(California) Public Resources Code
PTF	Pacific Tailed Frog
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

Acronym/Abbreviation	Description
SHS	State Highway System
SLR	Sea Level Rise
SNC(s)	Sensitive Natural Community(ies)
SO_2	sulfur dioxide
SR	State Route
SRA	State Responsibility Area
SRNF	Six Rivers National Forest
SSC	Species of Special Concern
STS	Southern Torrent Salamander
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
TMP	Transportation Management Plan
U.S. or US	United States
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
UST	Underground storage tank
UT POLE	utility pole
VFD	Volunteer Fire Department
VIA	Visual Impact Assessment
VMT	Vehicle Miles Traveled
WAFWA	Western Association of Fish and Wildlife Agencies
WOTUS	Waters of the U.S.
WPCP	Water Pollution Control Program
WPT	Western pond turtle
WQAR	Water Quality Assessment Report
XPI	Extended Phase I Investigation

Chapter 1 Proposed Project

1.1 Introduction/Project History

The California Department of Transportation (Caltrans) proposes to improve transportation facilities at two sites in Humboldt County: State Route 96 (SR 96) at PM R38.9 and State Route 299 (SR 299) at PM R7.4. The actions described herein reference the 'Maintenance Facilities Project,' or 'project.'

Both the Orleans Maintenance Station and the Buckhorn Weigh Station and California Highway Patrol office/shelter were identified by Caltrans' Maintenance Engineering, Asset Management Division, and Office of Electrical, Mechanical, Water, and Wastewater (OEMWW) as containing substandard structures or services.

The Orleans Maintenance Station (herein 'Orleans MS' or 'MS') provides road and emergency services for an extensive rural area in mountainous northeastern Humboldt County that is subject to heavy rains, flooding, landslides, wildfires, earthquakes, and road closures. It is an important regional facility, designated as a secondary Emergency Operations Center for Caltrans District 1, with the next closest Maintenance Station located 37 miles to the south of Orleans on State Route (SR) 96 in Willow Creek. The MS has an average crew of eight people and stores and operates a range of heavy equipment, including backhoes, plows, pavers, and other equipment as needed. The MS's main service area (herein 'crew/equipment building') consists of a small office area with restrooms, and a mezzanine which overlooks the larger two-bay equipment storage and repair area. In total, the crew/equipment building occupies approximately 2,200 square feet. The Orleans MS is an aging facility (last upgraded in 1981) and the mezzanine, restrooms, and locker room in the crew/equipment building are not compliant with the Americans with Disabilities Act (ADA). Additionally, the facility's septic/leach field is aging, the size of the service bays is not adequate to accommodate current fleet vehicles, and the facility lacks a compliant fire suppression water source.

The Buckhorn Weigh Station (herein, the Buckhorn Commercial Vehicle Enforcement Facility (CVEF)) is a Caltrans facility operated by the California Highway Patrol (CHP); it serves westbound truck traffic on State Route 299, just east of the city of Blue Lake.

At the Buckhorn CVEF, the CHP inspects trucks and other commercial vehicles to ensure the weight, size, and mechanical condition meet safety standards.

The facility's existing scale is a conventional pit scale and weighbridge system centered within a 425-foot-long concrete pad with an overhead weight readout. The scales show signs of age, with calibration errors and rusting noted by facility inspectors. An adjacent 200 square foot building (herein 'Scale House') provides equipment storage area and shelter and restrooms for CHP personnel. The Scale House is in poor condition with bullet holes in the glass, and general age related, substandard (i.e., building efficiency standards) and noncompliant (i.e., existing restroom) elements. The Buckhorn Weigh Station facility also lacks a compliant fire suppression water source.

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 to standardize District 1 transportation facilities at Orleans and Buckhorn to meet the needs of the transportation system.

Need

Both the Orleans MS and Buckhorn CVEF are important transportation facilities in rural areas of Humboldt County. Both facilities have outdated or poor condition elements. The Orleans MS crew/equipment building has nonconforming and noncompliant restrooms, locker room, and upstairs storage mezzanine, and the crew/equipment building has inadequate storage space and equipment bays. The MS facility is not equipped with a dedicated fire suppression system, nor can the facility support the increasing number of electric Caltrans fleet vehicles. The Buckhorn CVEF has several outdated and damaged features and a noncompliant restroom.

1.3 Project Description

The Maintenance Facilities Project proposes to improve transportation-related facilities at the Orleans MS in Humboldt County on W. Pearch Creek Road off State Route 96 at Post Mile R38.9 and at the Buckhorn CVEF facility near the town of Blue Lake (truck scale and California Highway Patrol scale office/shelter) on State Route 299 at Post Mile R7.4 (Figure 1), by replacing and upgrading existing substandard facilities and by adding electric vehicle (EV) charging stations (Orleans only).

Location

The Orleans Maintenance Station is located near the town of Orleans on W. Pearch Creek Road (also known as Red Cap Road) off State Route 96 in northeastern Humboldt County. From the community of Orleans, the facility is accessed via northbound travel on SR 96 for approximately 0.5 mile, then an immediate left onto W. Pearch Creek Road for approximately 0.17 mile. The entrance to the Orleans MS is a right turn off W. Pearch Creek Road.

The Buckhorn Weigh Station is located on the north side (westbound lanes) of SR 299 in a rural area two miles east of the city of Blue Lake. The facility is approximately 7.3 miles east of the SR 299 and U.S. Highway 101 interchange, 17 miles north of Eureka, 30 miles south of Willow Creek, and 107 miles from Buckhorn Summit at the Shasta-Trinity County line.

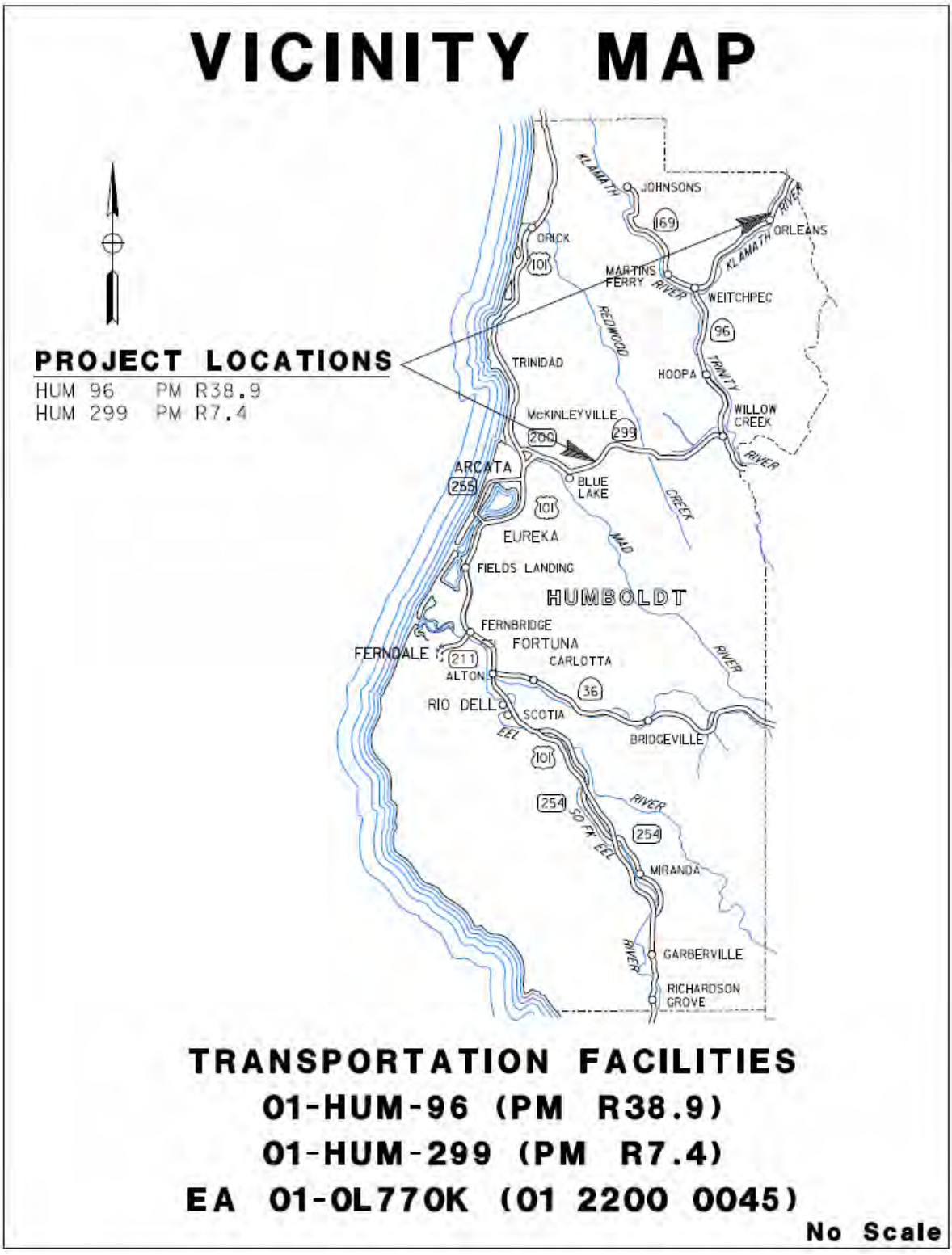


Figure 1. Project Vicinity

General Plan Description, Zoning, and Surrounding Land Use

Orleans

The Orleans MS is located within 600 feet of the Klamath River on an uplifted river terrace at approximately 430 feet in elevation. In the area around the MS, the river valley landscape is characterized by mature Douglas-fir and hardwood (valley oak and madrone) that transitions to Douglas-fir and mixed conifers in the uplands.

This area of Humboldt County is remote, with most land owned and operated by the Six Rivers National Forest (SRNF). The MS itself is located on land leased to the state by the SRNF. Long range planning for the Orleans area is described in the Orleans-Somes Bar Community Action Plan (OSBCAP) (County of Humboldt 2003a) and the Humboldt County General Plan (County of Humboldt 2023b). Additional planning guidance exists for the community; the Karuk Tribe and the Community of Orleans have developed the Orleans Community Center Connectivity Project (Karuk Tribe 2018) that identifies transportation-related goals for the Orleans community, and the community, including the Orleans Volunteer Fire Department (VFD), has a Community Wildfire Protection Plan (Orleans/Somes Bar Fire Safe Council 2012) that helps shape planning decisions.

The VFD serves most of the community, including the MS. Most of the community lands are also within the jurisdiction of the California Department of Forestry and Fire Protection (CAL FIRE); lands are designated as within the State Responsibility Area (SRA) and would receive firefighting assistance from CAL FIRE. The MS itself, on federal land, is within the Federal Responsibility Area for fire protection; in practice, CAL FIRE would assist on all fires in the area.

Development is concentrated along the SR 96 corridor, which acts as the primary access into, out of, and within the community of Orleans, which is located to the west of the MS on both sides (north and south) of the river. In these settled areas there is a market, post office, a Forest Service ranger station, a school, community buildings (i.e., churches and the VFD), a commercial zone and agriculture (orchards, vineyards, and cannabis) as well as residential housing. The school and associated childcare center (Head Start) are approximately one-half mile southwest of the MS. There is no public airport in the Orleans area; however, a private airstrip with an unknown operational status is located just over one-half mile southwest of the MS.

Other land uses in the area include recreation, mining, and timber operations. In the areas in and around the community and the MS, there is one active gravel and sand surface mining operation (located in the commercial zone within the Orleans community area) and records of abandoned and/or closed mining operations. The forests around Orleans are managed for timber production by the SRNF; there are some privately held lands zoned for timber production.

Recreational options center around the Klamath River, with opportunities for river use, swimming and fishing as the primary draw for visitors. There are several vacation rental types of accommodation near the river in Orleans and the Forest Service operates the Pearch Creek Campground in the area. This public campground is approximately one-half mile north to northeast of the MS.

Around the Orleans MS specifically, there are private lands, lands owned by the Karuk Tribe, and land owned by the SRNF. On the MS's northeast boundary, there is a developed residential parcel; the parcels to the southeast and southwest are undeveloped, forested parcels. The northwest boundary is W. Peach Creek Road and public lands.

Buckhorn

The Buckhorn CVEF is located within the existing State right of way, immediately adjacent to State Route 299 at 600 feet elevation in a forested environment, separate from the agricultural floodplains of the community of Blue Lake, which is just a few miles to the west. North, east, and south of the CVEF are forested hillslopes, characterized by 'bald hills' topography, as well as clearings from timber harvests and rural timber access roads. Unlike the Orleans facility, the Buckhorn CVEF is surrounded, generally, by private lands. There is an active surface mining operation (Liscom quarry) to the north; a mill and the small residential community of Korbel are located due south.

The city limits of Blue Lake are less than 1 mile west of the Buckhorn CVEF. The town's elementary school and city center is approximately 1.5 miles west of the facility.

Long range planning for the CVEF area is described in the Humboldt County General Plan (County of Humboldt 2023b). Blue Lake has a community planning guidance document, but the area of influence does not include the CVEF facility.

The CVEF facility is located within the jurisdiction of the Blue Lake Fire Protection District and within designated SRA lands and both the Blue Lake Volunteer Fire Department as well as CAL FIRE would respond to any fires in the CVEF area.

1.3.1 Existing Facilities

Orleans

The Orleans MS (Figure 2) occupies a little over one acre of developed land (1.5 acres total); the facility is mostly paved or otherwise developed (1.2 acres) and has chain link perimeter fencing, lighting on light poles (perimeter and central) and buildings, and a gated entrance/exit. In addition to the crew/equipment building, the MS has a materials (sand, gravel) storage building with 3 bays, as well as multiple smaller storage units (signs, cones, chainsaws/hand tools, spill response materials, etc.) located along the perimeter and adjacent to the crew/equipment building. Within the perimeter of the MS, and in the northwest corner, is a residential building; this residence was constructed in 1960 and was originally intended as a 'superintendent's cottage.' The residence has a deck and a lawn and is entirely fenced with cyclone fencing. To the northeast of the residential area is an unpaved, grassy laydown area; upslope from that is a concrete surfaced, mud-washout area.

The crew/equipment building and the residence are served by an onsite septic system. Potable water is provided by the Orleans Community Services District (OCSD) via a 3-inch-diameter pipe that runs from SR 96 and W. Pearch Creek Road. The Orleans MS has an underground pipe that intersects the community water supply line at the intersection of the facility driveway and W. Pearch Creek Road. Historically, the station had a well and pump house located along the northern boundary of the MS.

The station's electrical power is carried on overhead lines (two-phase electrical power) from the SR 96 and W. Pearch Creek Road intersections through the adjacent undeveloped parcels. There are no internet or phone lines on these overhead poles. Critical communication and internet services are provided by a satellite system.

The crew/equipment building also has a backup generator that is connected to a propane tank in case of power outage. Two additional propane tanks on site provide energy for hot water and space heating for the crew/equipment building and the

residential building. There is an electrical, water and septic hook up for an RV or mobile home toward the northeast corner of the MS, which is not currently in use.

The MS has a 2,000 gallon diesel above-ground storage tank (AST) located under a canopy along the fenced southern boundary that serves the heavy duty equipment used by the MS. Historically, the MS had additional fuel tanks that have since been removed; the MS is listed as a historic Leaking Underground Storage Tank (LUST) cleanup site by the State Water Resources Control Board (SWRCB).

The MS currently has no alternative fueling options (no EV charging stations).

Buckhorn

The Buckhorn Weigh Station is a Caltrans weigh scale facility operated by CHP officers, serving southbound truck traffic on State Route 299, just east of the city of Blue Lake. The facility occupies approximately 1.5 acres of developed area immediately adjacent to the highway with on and off ramps, an underground weigh scale, and a small, 200 square foot building (herein 'scale house'), that provides equipment storage area and shelter and restrooms for CHP personnel. The scale is a pit scale and weighbridge system centered within a 425-foot-long concrete pad with an overhead weight readout. The scale house is served by an onsite water source and onsite septic system, with a leach field located in the grassy median that separates the CVEF facility from the highway. The utilities are underground at the CVEF facility. Critical telecommunication services are provided by a CHP radio/satellite unit mounted on the side of the existing scale house.

1.3.2 Proposed Improvements

Orleans

At the Orleans MS (Figure 3), the proposed project would upgrade the existing facility and add new EV chargers.

The project would demolish the existing crew/equipment storage building (approximately 2,200 sq ft) and construct a new crew/equipment building (approximately 5,000 sq ft) in the same relative location. The existing retaining wall on the north side of the crew/equipment building would also be removed and reconstructed as needed to accommodate the new crew/equipment building.

A new bioswale would be added to the lawn area adjacent to the residence (southeast side) to improve management and add treatment of stormwater runoff.

The project would remove and replace existing perimeter fencing and entry gate and add lighting. The new fence and gate would be of a similar material (chain link) and rebuilt to the same approximate height and in the same location/layout line as the existing fence. To accommodate the new crew/equipment building and underground electrical, existing light poles may be moved. As necessary to cover underlit areas, new lighting would also be installed. Any new lighting would be similar in color and brightness to the existing lighting and would be directed into the MS facility.

The project would also add fire suppression infrastructure to meet the requirements of the State Fire Marshall; the project would install a new 8" water line to provide water for fire suppression. The line would start at the fire hydrant on the south side of the SR 96 and Red Cap Road intersection, cross SR 96, and run to the MS under W. Pearch Creek Road. The line would be buried underground approximately 4.2 feet below the surface of the road.

Finally, the project would add up to four new EV chargers to the MS (consisting of a combination of Level 2 and Level 3 (fast charging) chargers). These chargers would be added as an infrastructure component necessary for meeting the State's fleet electrification goals (Governor's Executive Order B16-14 and DGS Management Memo 13-04). The chargers would be located within the existing MS boundary and would serve Caltrans fleet vehicles only.

Infrastructure associated with the EV chargers and the upgraded crew/equipment building includes the addition of at least one additional power pole, electrical conduit and electrical cabinets/transformers. The project anticipates that the mechanism for the delivery of the additional electricity would be through the installation of a new underground powerline (additional details in Utilities below).

Utilities

Operational aspects of the Orleans Maintenance Station would be preserved during construction with some modifications. MS employees would utilize the residence during project construction and have access to the MS including, at all times, access to the salt/gravel stored in the materials storage building onsite.

Some vehicles and equipment may be stored offsite during construction due to the anticipated lack of available parking/storage space during construction. Offsite storage of trucks/equipment would be at another Caltrans facility or with local Orleans businesses with a compatible existing land use (a commercial mechanic shop or a gravel lot where commercial equipment/trucks are stored).

Before and during construction, coordination would occur between the Caltrans MS supervisors, utility companies, and the contractor to coordinate timing of possible power disruptions. During construction, satellite internet and phone connection would be temporarily disconnected from the crew/equipment building and established at a point within the facility for continued use during construction.

There are underground and overhead utilities that serve the maintenance station. Where locations of underground utilities are unknown or approximated, they would be identified prior to construction. This would be carried out through 'pot holing' or a similar process in which small test holes are excavated to determine the actual location of underground utilities prior to excavation.

The Orleans MS would require upgraded electrical; this power delivery is anticipated to be delivered via new underground conduit to the MS. From the existing three-phase power source at the utility pole near the intersection of SR 96 and W. Pearch Creek Road (UT 1; See Appendix A for project layouts), three-phase power would be extended along the existing overhead route (toward UT 2) to within approximately 15-feet of the edge of pavement (within the roadway prism) where a new approximately 2-foot diameter UT pole (herein UT NEW) would intercept the line and direct it down the pole and into an underground conduit that would travel north/northeast along the shoulder of W. Pearch Creek Road until a point across from the MS driveway where it would cross W. Pearch Creek Road and continue into the MS. A small above-ground utility cabinet would be located at a point before the turn into the MS driveway (approximately 6 sq ft footprint), and an electrical transformer (approximately 225 sq ft) would be installed in the southwest corner of the MS, replacing existing pavement. From the transformer, power would be moved via underground conduit to the MS facilities.

The overhead power line that passes through the MS to a residence (power line ends at UT Pole 6, east of the MS) may be modified to accommodate a new line angle/slight rerouting as a result of the new crew/equipment building's final location and final height. Power impacts to nearby residents and the Karuk tribal office would

depend on PGE's final design decision, but would, in all cases, per PGE's standard operating procedures, be minimized to the extent possible. In a scenario in which power must be disconnected, advanced notice would be provided of the anticipated date, time and duration of the anticipated outage.

The project would also add new water infrastructure. A new 8-inch-diameter pipe for fire suppression would be added starting at the main community water pipe located at the intersection of SR 96 and W. Pearch Creek Road, and continue underground within the road prism of W. Pearch Creek Road until the MS where it would make a turn into the MS via the driveway or through the land between W. Pearch Creek Road and the MS. The new water line would be installed via trenching and/or directional drilling (a horizontal boring method); the method would be decided during the final design phase such that all culverted stormwater and stream crossings would remain in place and unaffected by the water line installation.

The water would be metered and purchased from the Orleans Community Services District (OCSD). Caltrans has been in correspondence with the OCSD regarding the proposed water pipe, connections, pressure, and anticipated use.

Traffic and Staging

One-way, reversible traffic control would be required during the water line trenching and installation work on SR 96 and W. Pearch Creek Road. This portion of the project is anticipated to take less than 10 days to complete. Traffic control is also anticipated for installation of the power line; power line work could take approximately 5 to 30 days, depending on the final design. No traffic control is required for the work at the Orleans MS facility itself.

For both water line construction and power delivery, staging would occur within the closed roadway lanes or along the westbound shoulder of SR 96. For work at the Orleans MS, staging of equipment and materials would be concentrated in the southern corner of the paved MS.

Demolition and Construction

The existing crew/equipment building would be demolished and components of the structures (metal roofing, steel beams, etc.) removed to a recycling center or commercial waste facility. The asphalt in and around the proposed action areas and the existing concrete foundations would be excavated and removed to a construction debris recycling center.

Construction work planned for the retaining wall and new crew/equipment building MS would require the demolition and excavation of the existing building as well as excavation of an additional area (approximately 3,000 sq ft) behind and adjacent to the existing building to accommodate the footprint of the proposed new crew/equipment building. Potentially, if existing storage sheds in the footprint of the new building are relocated to new areas within the MS boundaries, excavation and new foundations to reestablish the storage sheds could be necessary.

The area to the southeast of the residence would require limited excavation and grading to install the bioswale and contour the drainage area to modify flows into the bioswale. The EV chargers would be mounted on concrete foundations. Parking lines and signage for the chargers would be adjacent to the chargers within the existing paved areas.

A new electrical cabinet for the underground power delivery would be located at the base of the MS driveway and W. Pearch Creek Road with a larger transformer located within the developed boundary of the MS. Any potential work associated with UT Pole 6 would be limited to the overhead power lines and the existing pole. No ground disturbance of the neighboring parcel is anticipated.

Excavation for the water line and utilities would be either directional drilling, trenching, or a combination of both methods (the final methodology would be determined during the design phase of the project). Trenching is a direct dig method that is commonly utilized for shallow profile trenching (less than 5 feet deep). Directional drilling is an underground horizontal boring process that limits damage to the ground surface and can place conduit at depths that exceed the depths available using the open trench method.

Ground disturbance associated with directional drilling is limited to entry pits and exit pits, where the conduit installation would pause to reorient the drill to best follow road curves. These pits could be up to 5 feet deep and could occupy an area as large as 180 sq ft. depending on the required drill equipment.

Excavation for the proposed work at the Orleans MS will range from depths of 0 to 10 feet within the MS, and from 0 to 5 feet for water line and power delivery work outside of the MS.

Additionally, geotechnical drilling would be required at the Orleans MS to acquire the information necessary for the proposed structure's foundation requirements. Drilling would consist of approximately 1-3 boring locations immediately adjacent to the existing crew/equipment building with drill depths of approximately 60 feet. (This information has been added since the draft environmental document).

Right of Way

The Orleans MS is located on leased SRNF land. All proposed work within the MS boundary would be authorized by the SRNF. Work outside of the established MS boundary would include the open trenching and installation of the proposed 8-inch-diameter water line, access to the northeast portion of the fence for removal and installation, and work by PG&E to provide the power supply associated with the Level 3 EV chargers that would be delivered to the MS.

The northeast fence removal and installation would require a temporary construction easement (TCE) by the private landowner adjacent to the MS. Water line trenching and installation would require a TCE and a permanent easement from the County of Humboldt for the water infrastructure within W. Pearch Creek Road. If the final design plan for power delivery includes undergrounding, both temporary and permanent easements would be acquired by PG&E, either from the County of Humboldt for installation of power infrastructure of W. Pearch Creek Road or from the private landowner adjacent to the MS for use of the parcel between SR 96 and the Orleans MS.

Vegetation Removal

The proposed work would require vegetation disturbance at various locations adjacent to the MS, MS driveway, and adjacent to W. Pearch Creek Road and SR 96.

On the northeast side of the existing crew/equipment building, approximately 250 sq ft of existing unpaved area would be permanently removed to accommodate the new crew/equipment building. The existing lawn at the cottage would also experience vegetation removal, most of it temporary, during the installation of the bioswale and, potentially, for the installation of a new septic leach field.

Some vegetation disturbance is also anticipated during the work to replace the perimeter fence. However, the new fence would be in the same location as the existing fence and the vegetation immediately adjacent to the fence is already subject to foot traffic and vegetation management.

An additional area of permanent vegetation removal would be necessary for placement of the proposed new utility pole and new electrical cabinet near the entrance to the MS driveway. One small tree (<5-inch diameter-at-breast-height [dbh]) would be removed due to installation of UT NEW. Electrical conduit installation would result in temporary vegetation disturbance along the shoulder of W. Pearch Creek Road. With the exception of the UT NEW and electrical cabinet (which must be located off the road to ensure safe driving conditions), the electrical conduit impacts are expected to occur within the existing road shoulder—a hard packed area, generally consisting of fill material, that is periodically mowed to maintain safe driving conditions.

Equipment

Construction equipment is anticipated to include:

- Light duty truck
- Medium duty truck
- Dump truck
- Mini-excavator
- Excavator
- Backhoe
- Skid-steer with auger
- Loader
- Crane
- Trencher
- Self-propelled sweeper
- Air compressor
- Generator
- Jack hammer
- Concrete saw
- Plate compactor (vibro-plate)
- Jumping jacks
- Concrete mixer
- Concrete pump truck
- Water buffalo

Schedule

Project construction is anticipated to begin in November 2027. Estimated working days for the work at the Orleans MS is 198 days.

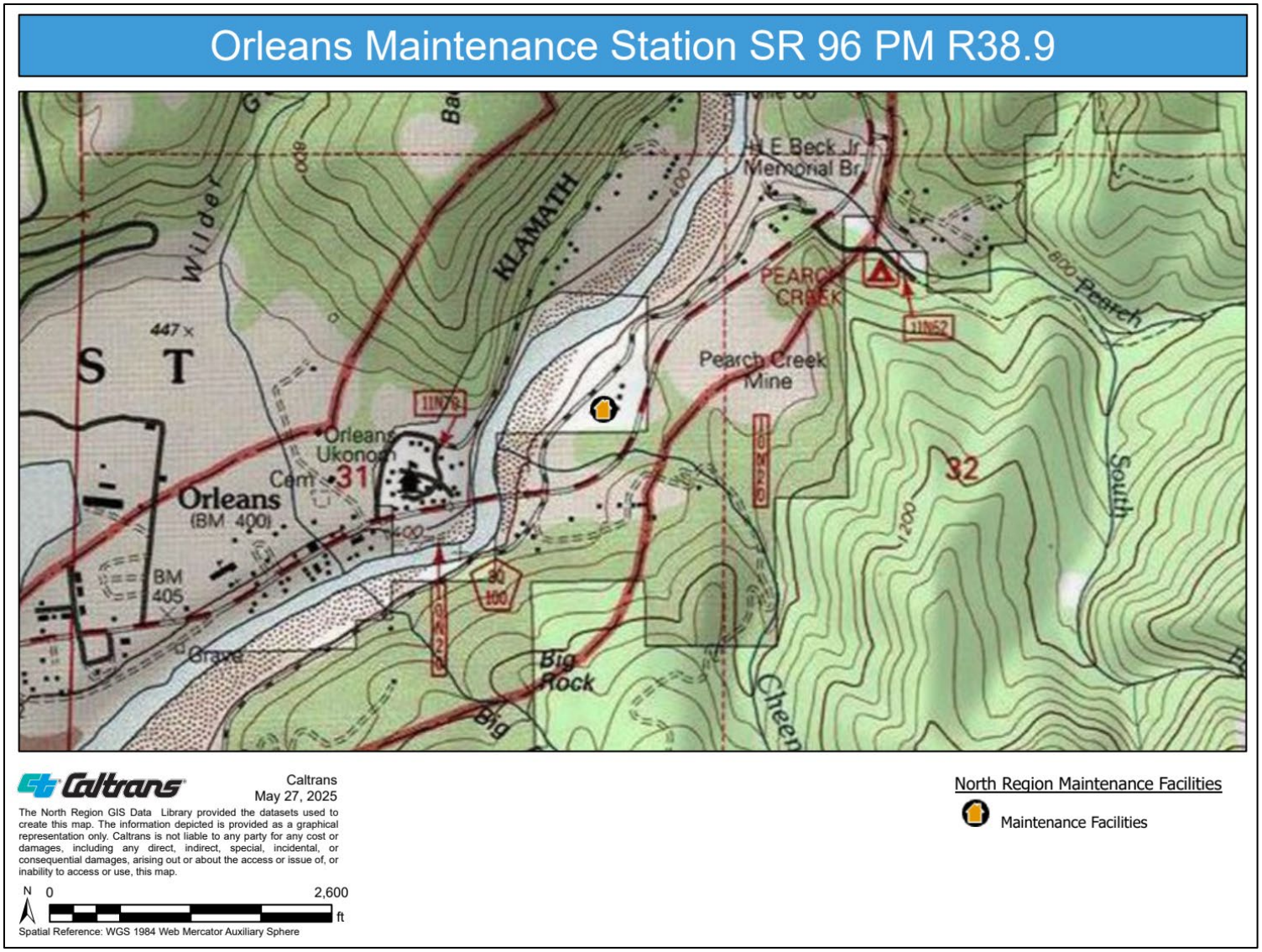


Figure 2. Project Location Map - Orleans Maintenance Station

Buckhorn

At the Buckhorn CVEF facility, the proposed project would demolish the existing scale house (15-feet-wide by 24-feet-long), construct a new scale house (approximately 15-feet-wide by 47-feet-long), demolish and replace in-kind the existing weigh scale and scale pad, and replace the existing scale pit drainage pipe (8-inch-diameter). The scale pit drainage pipe drains into the drainage inlet (DI) located west/southwest of the scale within the grassy median. This DI is one of two DIs associated with the larger culvert system at PM 7.39. Neither DI would be modified as a result of the proposed work.

Utilities

The CVEF facility is served by existing underground utilities. Where locations of underground utilities are unknown or approximated, they would be identified prior to construction. This would be carried out through a 'pot holing' or similar process in which small test holes are excavated to determine the actual location of underground utilities prior to excavation.

A temporary loss of electricity and other utilities is anticipated during the demolition and replacement of the scale house and scale; the exception being the CHP radio unit, which will be operational at all times.

Demolition and Construction

Similar to the planned demolition at the MS, the existing scale house structure would be dismantled and components (metal roofing, steel beams, etc.) removed to a recycling center or commercial waste facility. The asphalt in and around the proposed action areas and the existing concrete foundation, as well as the existing concrete weigh scale pad, would be excavated and removed to a construction debris recycling center.

Construction work planned for the scale house and weigh scale would require excavation and installation of a new foundation for the larger scale house footprint. Potentially, limited excavation and modification to the existing underground utilities, (to conform to the new scale house and weigh scale) would be required. The new weigh scale is anticipated to occur within the existing scale area and only incidental, limited, additional excavation in and around the existing pit would occur. There would be new paving around the perimeter of the new scale house and weigh scale.

Excavation for the proposed work at the Buckhorn CVEF would range from depths of 0 to 10 feet.

Additionally, geotechnical drilling would be required at Buckhorn to acquire the information necessary for the proposed structure's foundation requirements. Drilling would consist of approximately 1-3 boring locations near the existing scale house with drill depths of approximately 60 feet. (This information has been added since the draft environmental document).

Traffic and Staging

Staging would occur within the paved areas of the CVEF facility. Vehicles traveling westbound on SR 299 would have advanced notice of the facility and offramp closure.

Vegetation Removal

While vegetation removal is not required for the majority of the proposed work at the CVEF facility, there is some potential for the project to disturb ruderal grasses in the center median (ruderal = growing where the natural vegetational cover has been disturbed) that border the weigh scale and cover a small portion of the scale drain pipe.

Right of Way

Project construction work at the CVEF would take place entirely within the existing Caltrans right of way. No temporary construction easements (TCEs) or new right of way acquisition would be required.

Equipment

The equipment previously identified for the Orleans MS construction work, less a crane, would be utilized for the work at the Buckhorn CVEF.

Schedule

The CVEF facility would be temporarily closed for the duration of project construction. Notice would be provided to CHP ahead of the closure.

Project construction is anticipated to begin in November 2027. The estimated number of working days for the work at the Buckhorn CVEF is 120 days. At this time, work may occur sequentially or simultaneously at both project locations.

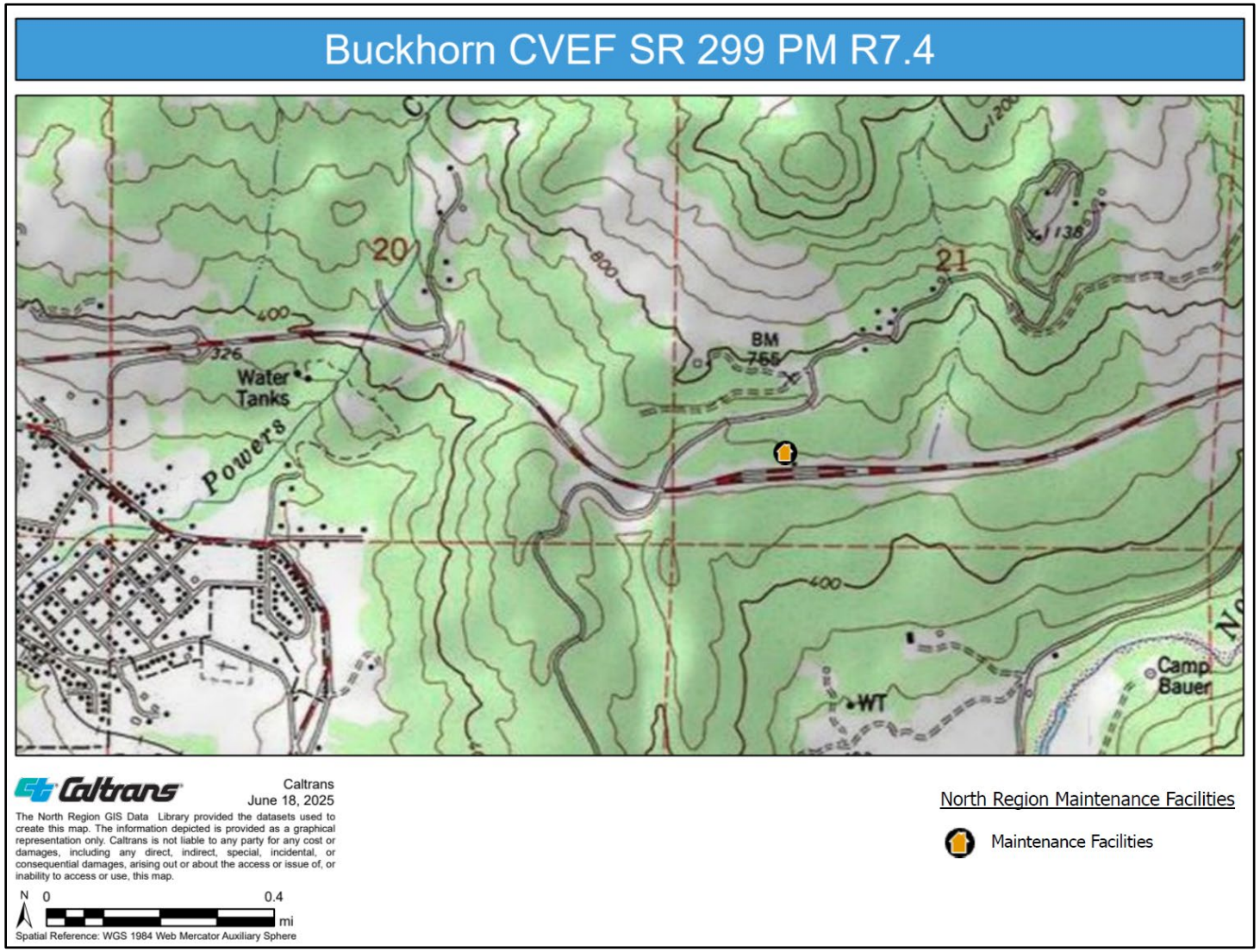


Figure 3. Project Location Map –- Buckhorn CVEF

1.4 Permits and Approvals Needed

The following table indicates the permitting agency, permits/approvals, and status of permits required for the project. New construction at the facilities would require an inspection and final approval from the State Fire Marshal.

Table 1. Agency, Permit/Approval Needed and Status

Agency	Permit/Approval	Status/Timeline
U.S. Fish and Wildlife Service (USFWS)	Programmatic Letter of Concurrence (PLOC)	Completed
State Fire Marshal	Occupancy Permit/Permit to Operate	Post construction

1.5 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, they 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 and in respective species discussion in Section 2.4.– Biological Resources.

All measures listed below would be applied to both project locations, Orleans MS and Buckhorn CVEF, unless otherwise stated.

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. 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.

C. 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.

D. A qualified biologist would conduct appropriately timed pre-construction surveys for sensitive bumble bee species within the Orleans MS ESL to ensure no special status bumble bees or their nests are affected.

E. *Northern Spotted Owl and Marbled Murrelet:* To protect nesting or roosting bird species, no suitable nest trees would be removed during the nesting season (February 1 through September 15). 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 July 31. Sound-related work windows would be lifted between July 31 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/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.

F. ***Humboldt Marten:*** No suitable marten denning/resting habitat or potentially suitable marten den or rest trees will be removed or altered (i.e., to the extent the tree or habitat are no longer suitable for denning or resting) during the denning season (i.e., from 1 March through 15 September). Suitable marten habitat may be removed or altered outside the denning season (i.e., from 16 September through the following 28/29 February) provided the remaining habitat retains suitability for denning and resting after the removal or alteration. Habitat suitability includes maintenance of the dense, mesic shrub layer at or above 70 percent. Removal or alteration of known natal or maternal den trees (or more rare den structures such as rockpiles, snags, logs) at any time of year is not covered by this consultation. No human activities (including use of drones) will occur within a visual line-of-sight of 328 feet (100 meters) or less from a known natal or maternal den site (USFWS 2022).

G. Cover holes and trenches to prevent entrapment. All holes and trenches over 6.0 inches (15.2 centimeters [cm]) deep must be covered overnight or backfilled before the end of the workday.

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* (CDFW 2022) for all field gear and equipment in contact with water.

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

A. 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.

Cultural Resources

CR-1: Caltrans would coordinate with the Karuk Tribe and incorporate measures to protect tribal resources, including potential work windows associated with tribal ceremonies.

CR-2: An archaeological monitor and Karuk tribal monitor would be used during ground-disturbing activities.

CR-3: 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-4: 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: 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 State Route 96 and State Route 299 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: When identified as containing hazardous levels of lead, traffic stripes would be removed and disposed of in accordance with Caltrans Standard Special Provision "Remove Yellow Traffic Stripes and Pavement Markings with Hazardous Waste Residue" (SSP 14-11.12).

HW-3: 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."

HW-4: If asbestos-containing material is removed during this project, it would be removed and disposed of in accordance with Standard Special Provisions (SSP) 14-11.10 Naturally Occurring Asbestos and SSP 14–11.16 Asbestos-containing Construction Materials in Bridges".

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 State Route 96 and State Route 299 throughout the construction period.

UE-2: Caltrans would coordinate with utility providers to plan for relocation of any utilities to ensure utility customers would be notified of potential service disruptions before relocation.

UE-3: The project is located within a *Moderate* 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.

- 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 the following:

- Where possible, stormwater would be directed in such a way as to sheet flow across vegetated slopes, thus providing filtration of any potential pollutants.

1.6 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 has been 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 [FESA]).

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	No
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	**Yes**
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 1.6]), 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)).

CEQA requires the identification of each potentially "significant effect on the environment" resulting from the project, and ways to mitigate each significant effect. Significance is defined as "Substantial or potentially substantial adverse change to any of the physical conditions within the area affected by the project" (14 CCR § 15382). CEQA determinations are made prior to and separate from the development of mitigation measures for the project.

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 (IS).

CEQA also allows for a “Mitigated Negative Declaration” in which mitigation measures are proposed to reduce potentially significant effects to less than significant (14 CCR § 15369.5). Although the formulation of mitigation measures shall not be deferred until some future time, the specific details of a mitigation measure may be developed after project approval when it is impractical or infeasible to include those details during the project’s environmental review. The Lead Agency must (1) commit itself to the mitigation, (2) adopt specific performance standards the mitigation will achieve, and (3) identify the type(s) of potential action(s) that can feasibly achieve that performance standard and that will be considered, analyzed, and potentially incorporated in the mitigation measure. Compliance with a regulatory permit or other similar processes may be identified as mitigation if compliance would result in implementation of measures that would be reasonably expected, based on substantial evidence in the record, to reduce the significant impact to the specified performance standards (§ 15126.4(a)(1)(B)).

Per CEQA, measures may also be adopted, but are not required, for environmental impacts that are not found to be significant (14 CCR § 15126.4(a)(3)). Under CEQA, mitigation is defined as avoiding, minimizing, rectifying, reducing, and compensating for any potential impacts (CEQA 15370). Regulatory agencies may require additional measures beyond those required for compliance with CEQA. Though not considered “mitigation” under CEQA, these measures are often referred to in an Initial Study as “mitigation”, Good Stewardship, or Best Management Practices. These measures can also be identified after the Initial Study/Negative Declaration is approved.

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.

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 (ESL) 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 ESL the project is anticipated to impact, both temporarily and permanently. This includes staging and disposal areas. See Appendix A for the project ESL maps.

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. 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.

Biological Study Area (BSA): The BSA encompasses the ESL plus any areas outside of the ESL that could be potentially affected by a project (e.g., noise, visual, Coastal Zone, etc.). Depending on resources in the area, a project could have multiple BSAs.

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?				✓
Would the project: b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				✓
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?				✓
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 Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the V*isual Impact Assessment (VIA)* (Caltrans 2025a) dated May 1, 2025.

Potential impacts to Aesthetics are not anticipated because the project is a maintenance facilities improvement project, where the scale and visibility of the construction work and replacement facilities would not substantially change from existing conditions.

Additionally, neither project is located on a scenic highway or within the viewshed of a scenic vista (Caltrans 2018) and while the Orleans MS would add additional lighting, the new lighting would not increase substantially and would not contribute to increased glare or light pollution. Therefore, the project would not have a substantial effect on scenic vistas or resources, or otherwise degrade the existing visual character of public views. Therefore, the project would result in "*No Impact*" on Aesthetics.

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?				✓
Would the project: b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				✓
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))?				✓
Would the project: d) Result in the loss of forest land or conversion of forest land to non-forest use?				✓

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 Impact" determinations in this section are based on the scope, description, and location of the proposed project. Potential impacts to Agricultural and Forest Resources are not anticipated because the project is a maintenance facilities improvement project that would replace existing facilities.

There are no agricultural lands within the ESL. The project would not convert farmland to non-agricultural use, conflict with existing zoning for agricultural use, forest use, or a Williamson Act contract, result in the loss of forest land or conversion of forest land to non-forest use or involve other changes to the existing environment that would result in conversion of farmland to non-agricultural use or forest land to non-forest use. Therefore, the project would result in "*No Impact*" to Agriculture and Forest Resources.

2.3 Air Quality

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?				✓
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?				✓
Would the project: c) Expose sensitive receptors to substantial pollutant concentrations?				✓
Would the project: d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?				✓

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the *Air Quality, Greenhouse Gas, and Energy Analysis for The Orleans MS and Buckhorn CVEF Project* dated May 2025 (Caltrans 2025b).

Potential impacts to Air Quality are not anticipated because the construction work would be temporary and limited in area. Also, operations from this non-capacity increasing project would not generate changes to traffic volume, fleet mix, traffic speeds, traffic location, or other new emissions-generating activities that could expose residents or other sensitive receptors (i.e., children) to harmful concentrations of pollutants or other emissions. Please refer to Section 2.8 for information specific to Greenhouse Gas Emissions. Therefore, the project would have "*No Impact*" on Air Quality.

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

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?				✓

Within this *Biological Resources* section of the document, 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 U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS) and California Department of Fish and Wildlife (CDFW) candidate species and CDFW Fully Protected (FP) species. CDFW Species of Special Concern (SSC) and California Native Plant Society (CNPS) rare plants are covered separately in their respective Plant and Animal sections. The information and analysis below rely on the Natural Environment Study/ Minimal Impact (Caltrans 2025c).

Within all sections below, the analysis considers impacts within defined boundary areas known as the Environmental Study Limits (ESL) and the Biological Study Area (BSA). The ESL is not the project footprint. Rather, it is the area encompassing the project footprint where there could 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 plus any additional areas outside of the ESL that may be affected by the project (e.g., noise and visual impacts). The BSA is where standard environmental assessments for sensitive resources (e.g., habitats, plants, wildlife, wetlands, rivers/creeks) are conducted. The parameters of the project BSA are outlined below.

- For both the Orleans and the Buckhorn action areas, the project BSA encompasses the ESL plus a 0.25-mile buffer. The limits were determined, in part, using guidance found in *Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owl and Marbled Murrelets in Northwestern*

California (USFWS 2020) and *USFWS Regions 1 and 8 Northwestern Pond Turtle Avoidance and Minimization Measures Draft Version 1* (USFWS 2024). This BSA accounts for potential construction-related auditory and/or visual impacts on special status animal species including the marbled murrelet, northern spotted owl, and Pacific marten, which are federally and state listed species, and the Northwestern pond turtle which is proposed to be listed as threatened under FESA and a CDFW Species of Special Concern.

NATURAL COMMUNITIES

Regulatory Setting

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.

There are no habitat areas that have been designated as critical habitat (CH) under the Federal Endangered Species Act.

Affected Environment

Sensitive Natural Communities

SNCs are 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. High priority SNCs are globally (G) and state (S) ranked 1 to 3, where 1 is critically imperiled, 2 is imperiled, and 3 is vulnerable. Global and state ranks of 4 and 5 are considered apparently secure and demonstrably secure, respectively (CDFW 2009, CDFW 2010, International Union for the Conservation of Nature [IUCN] 2016).

Natural communities, or vegetation alliances and associations, were identified within the BSA, using the descriptions provided *A Manual of California Vegetation, 2nd edition* (Sawyer et al., 2009). The classification is based on the dominant plant species and emphasizes natural, existing vegetation.

The following SNC is present within the project Environmental Study Limits at the Orleans MS location:

Wild Grape Shrubland

Vitis californica Shrubland Alliance (Wild grape shrubland) is a SNC and is ranked G3/S3. This vegetation community exists within the Orleans MS ESL and is dominated by wild grape (*Vitis californica*) and Himalayan blackberry (*Rubus armeniacus*). Within the areas of wild grape shrubland in the ESL, a small number of emergent trees/shrubs exist but are heavily covered with wild grape vines.

The following SNC is present within the project Environmental Study Limits at the Buckhorn CVEF location.

Redwood Forest and Woodland

Sequoia sempervirens Forest and Woodland Alliance (Redwood forest and woodland) is a SNC and is ranked G3/S3. Redwood Forest and Woodland SNC is found within the Buckhorn ESL. In this vegetation community type, Redwood (*Sequoia sempervirens*) is dominant or co-dominant in the overstory with other tree species such as Douglas-fir (*Pseudotsuga menziesii*), Tan oak (*Notholithocarpus densiflorus*), big leaf maple (*Acer macrophyllum*), California bay (*Umbellularia californica*), and understory species including Cascara (*Frangula purshiana*), huckleberry (*Vaccinium* sp.), poison oak (*Toxicodendron diversilobum*), sword fern (*Polystichum munitum*) and milk maids (*Cardamine californica*).

Habitat Connectivity/Fish Passage

Wildlife movement corridors in California are identified and described for the California Essential Habitat Connectivity (CEHC) Project–a project commissioned by Caltrans and CDFW to identify a functional network of connected wildlands deemed essential for maintaining California's native biodiversity (Spencer et al., 2010). The project footprint/ESLs and BSAs are not within any of these designated ECAs.

Anadromous fish habitat exists in the nearby Klamath River and its tributary, Cheenitch Creek, passes under SR 96 and W. Pearch Creek Road within the Orleans MS ESL, and may provide suitable habitat for anadromous or resident fish species. The SR 96 Cheenitch Creek culvert (PAD ID #722598) is a total barrier to fish passage.

Wetlands and Other Waters

The project ESLs were surveyed to identify any potentially jurisdictional waterways, wetlands, or potentially jurisdictional areas that may be impacted by the project. This included an assessment for the following:

- Any wetland or non-wetland Waters of the United States (WOTUS) subject to federal jurisdiction of the United State Army Corps of Engineers (USACE) pursuant to Section 404 of the Clean Water Act (CWA).
- Any wetland or non-wetland Waters of the State subject to the jurisdiction of the North Coast Regional Water Quality Control Board (NCRWQCB) pursuant to the Porter-Cologne Water Quality Control Act and Section 401 of the CWA, and
- Any bed, bank, channel, or riparian habitats subject to the jurisdiction of the California Department of Fish and Wildlife (CDFW) pursuant to Fish and Game Code Section 1602.

Several potentially jurisdictional WOTUS and Waters of the State were identified within the project ESLs.

- Within the Orleans ESL, a perennial stream, Cheenitch Creek, flows through two culverts within the project ESLs from the east; the creek flows under SR 96 and then under W. Pearch Creek Road to its confluence with the Klamath River.
- An unnamed intermittent drainage flows through a culvert under SR 96 and within the project ESL along the east side of the residential property that borders the maintenance station to the east and then under W. Pearch Creek Road. The stream may be dry in late summer/fall; however, it is anticipated to retain some water year-round. This feature is an average of approximately 2-feet wide at the ordinary high water mark (OHWM) within the ESL.

- Within the Buckhorn ESL, an intermittent drainage flows west adjacent to the shoulder of the CVEF, then flows into a culvert under the CVEF and SR 299, and eventually outlets onto the forested hillslope on the south side of the highway.
- Additionally, two drainage swales with wetland features exist within the vegetated strip that separates SR 299 and the CVEF facility. One ditch/swale drains to the west into a drainage inlet (DI)/culvert underneath the CVEF and into an intermittent drainage that flows west adjacent to the CVEF facility into another culvert across SR 299 and downslope. The second swale drains east, into a DI to a culvert underneath SR 299 and outlets on the hillside with no observable surface connection to a jurisdictional water.

Environmental Consequence

Sensitive Natural Communities

The Wild Grape Shrubland Alliance is located within portions of the Orleans MS ESL, but the only work that would occur within areas mapped as Wild Grape Shrubland Alliance would be potential minor trenching necessary for electrical conduit. Because the conduit would be within the immediate shoulder of W. Pearch Creek Road where regular mowing occurs, impacts to this habitat type would be temporary in nature and otherwise unsubstantial.

The Redwood Forest Alliance occurs within portions of the Buckhorn BSA and ESL; however, it is not within the project footprint and project development would have “No Impact” on this SNC.

Habitat Connectivity/Fish Passage

The project would not affect existing culverts or other waters, would not remove any riparian habitat, and would not erect new potential barriers to wildlife passage. The project would have “No Impact” on habitat connectivity or fish passage.

Wetlands and Other Waters

The project would not result in any impacts to wetlands or other waters either via direct or indirect habitat modification or via culvert repair, installation or replacement. At the Orleans MS, all conduit or water line installation would go above or below all cross culverts on W. Pearch Creek Road.

At the Buckhorn CVEF, the proposed scope of work would result in no impacts to the potential wetland areas. The project would have “No Impact” on wetlands and other waters.

Avoidance, Minimization and Mitigation Measures

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

PLANT SPECIES

Regulatory Setting

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
- National Environmental Policy Act (NEPA)–40 CFR Sections 1500 through 1508
- California Environmental Quality Act (CEQA)–California Public Resources Code (PRC) Sections 21000–21177

Affected Environment

Botanical surveys were conducted on May 1, and June 26, 2024, (Orleans MS), and on May 9 ,17, and July 1, 2024 (Buckhorn). Subsequently the ESL for the Orleans MS was expanded to include additional areas that would potentially be needed for PG&E to provide three-phase power. Additional botanical surveys were conducted within the Orleans MS expanded ESL April 14, 2025, and May 1, 2025. An

additional botanical survey of the Buckhorn ESL was conducted on April 30, 2025. All plants were identified to the taxonomic level necessary to determine rarity status.

Based on queries to the USFWS, CDFW-CNDDB and CNPS databases, and botanical surveys, there would be **no effect/no impact** to the following FESA/CESA plant species identified as potentially occurring within the project ESLs as the ESLs either lack suitable habitat or are outside the elevation and/or geographical range of the species:

- Beach layia *(Layia carnosa)* – federal threatened and state endangered
- Bensoniella (*Bensoniella oregana*) - state rare
- Western lily *(Lilium occidentale)* - federal and state endangered

The following special status California Rare Plant Rank (CRPR) plant species do occur within the project Environmental Study Limits (ESL) at the Orleans MS (Table 2).

Table 2. Special Status Plant Species Occurring within the Environmental Study Limits

Common Name	*Scientific Name*	Status Federal/State[1] CRPR[2]
Hooker's catchfly	*Silene hookeri*	-- / SSC / CRPR 2B.2
Orleans iris	*Iris tenax* subsp. *klamathensis*	-- / -- / CRPR 4.3

SSC = CDFW Species of Special Concern

[2]CRPR = California Rare Plant Rank

No occurrences of special status plants were identified at the Buckhorn CVEF.

Hooker's Catchfly (*Silene hookeri*)

Hooker's catchfly is a perennial herb found in the coastal and inland mountains of Humboldt, Del Norte, Trinity, Siskiyou and Mendocino counties in Northwestern California and in Oregon. It occurs at elevations from 492 to 4,134-feet (150 to 1260 meters) within cismontane woodland, and lower montane coniferous forest, often in grassy openings and sometimes on serpentine, or sandy rocky soils. This species

has a California Rare Plant Rank of 2B.2 and is moderately Threatened in California but is more common elsewhere and is somewhat locally abundant in the Orleans area.

A population of approximately 15-35 plants were mapped adjacent to the fence line to the south of the Orleans MS, growing primarily along the face and at the toe of the hillside just outside of the project footprint. The range in the abundance numbers is thought to reflect the variation in survey timing as well as potential environmental factors (rain, temperatures, etc.).

Orleans Iris (*Iris tenax* subsp. *klamathensis*)

Orleans iris is a perennial, rhizomatous herb found in the Klamath range within Humboldt, Del Norte and Siskiyou counties and is endemic to Northwestern California. It occurs in shaded mixed evergreen forests at elevations from 262 to 2625-feet (80 to 800 meters). This species has a California Rare Plant Rank of 4.3 due to its limited range but is somewhat locally abundant in the Orleans area.

A population of approximately 40 plants were observed within the shaded areas along the south and western portions of the Orleans MS outside of the project footprint. Several other individuals or smaller populations can be found growing sporadically within and adjacent to the ESL.

Environmental Consequence

Hooker's Catchfly (*Silene hookeri*)

Potential project related impacts to this species are expected to be minor. There are a large number of individuals in the population directly adjacent to the MS (15-35 plants) and only the few plants that are growing along the margin of the asphalt could be affected; approximately (3) three to (5) five individuals were mapped as occurring along the edge of the asphalt and adjacent to the existing chain link fence.

This population has been subject to regular foot traffic due to vegetation management activities, including string trimming along the fence boundary, as it is adjacent to the MS. Therefore, damage to the vegetative, above- ground portion of the plant from fence replacement would be similar to existing conditions and would not be a substantial impact under CEQA. Additionally, the project does not propose to remove trees, shrubs or otherwise modify the existing habitat; there would be no

change to the plants' environment in terms of shade, soils, slopes, or stormwater, which means that recovery potential for the population is high.

Potential ground disturbance from the removal and reinstallation of fence posts, however, could remove or damage established plant roots and rhizomes. The number of plants that could be seriously damaged or removed by the work is estimated to be up to (3) three plants based on fence pole locations and mapped plant occurrences.

A removal of (3) three or less plants would not be considered a substantial adverse impact due to the size of the population at the MS, the other documented occurrences nearby, and because no habitat modification would occur.

The project would implement Caltrans' Standard Measure BR-4(A) (Section 1.6) that calls for rare species occurrences to be mapped and indicated on project plans and onsite. Onsite identification and flagging (or fencing, as determined to be appropriate) of Hooker's catchfly plants that occur along the boundary of the pavement where work would occur would be conducted by a qualified biologist in the blooming season ahead of the planned fence work. The onsite flagging would indicate plant occurrences and allow the contractor to plan for fence installation in a way that would limit plant removal to the extent feasible. Although project development would have an impact on up to three individual plants, the project would have a "Less Than Significant Impact" on the Hooker's catchfly.

Orleans Iris (*Iris tenax* subsp. *klamathensis*)

Potential project-related impacts to this species are expected to be minor as there are a significant number of individuals in this population. Only a few plants have the potential to be affected by minor ground disturbance along the edge of the asphalt that would be required to replace the existing chain link fence.

Impacts to this species within the project BSA are negligible. In addition, because Orleans iris is locally abundant, the potential loss of a few individual plants would be of no measurable consequence for the species. Given this, it was determined the project would have "No Impact" on the Orleans Iris.

Avoidance, Minimization and Mitigation Measures

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed for Hooker's catchfly or Orleans Iris.

INVASIVE PLANT SPECIES

Regulatory Setting

Executive Order 13112 requires federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as "any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem, whose introduction does or is likely to cause economic or environmental harm or harm to human health." The Federal Highway Administration (FHWA) guidance issued August 10, 1999, directs the use of the state's invasive species list, maintained by the California Invasive Species Council, to define the invasive species that must be considered as part of the National Environmental Policy Act (NEPA) analysis for a proposed project.

Affected Environment

Introduction and naturalization of non-native species is one of the leading threats to global biodiversity. Some of the non-native species that most threaten native ecosystem function and structure in Humboldt County documented in the project BSA include yellow star thistle (*Centaurea solstitialis*) (Orleans MS only), dyers woad (*Isatis tinctoria*), scotch broom (*Cytisus scoparius)*, Himalayan blackberry *(Rubus armeniacus)* and pampas grass (*Cortaderia* sp.).

The area of disturbance for the new utility pole, electrical line trenching, and electrical cabinet primarily comprises ruderal grasses. The installation of UT NEW would require the removal of a small black locust tree (*Robinia pseudoacacia),* considered an invasive species.

Environmental Consequences

In compliance with the Executive Order on Invasive Species, EO 13112, and guidance from the FHWA, landscaping and erosion control included in the project would not include species listed as invasive (none of the species on the California list of invasive species are used by Caltrans for erosion control or landscaping in Humboldt County). All equipment and materials would be inspected for the presence of invasive species and cleaned if necessary (Section 1.6–BR-3).

Avoidance, Minimization and Mitigation Measures

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

ANIMAL SPECIES

Based on queries made to CNDDB, NMFS and USFWS databases, 45 special status animals have the potential to occur within the USGS quadrangle maps queried for this assessment (Appendices B and C). Species identified as having potential suitable habitat within the project BSA are discussed below. This section of the document relies on the Natural Environment Study July 2025 (Caltrans 2025c).

Regulatory Setting

The USFWS, NMFS, and CDFW have regulatory responsibility for the protection of special status animal species. The primary federal and state laws governing animal species are indicated below.

Federal laws and regulations relevant to wildlife include the following:

- National Environmental Policy Act–40 CFR Sections 1500 through 1508
- 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

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

Section 7 of the Endangered Species Act (ESA, or FESA to indicate federal authority) is titled Interagency Cooperation. It identifies the responsibilities of the U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), and other federal agencies to use their authorities in furtherance of the purposes of the ESA. Section 7(a)(1) requires all federal agencies to carry out programs for the conservation of listed species, and Section 7(a)(2) requires the agencies to ensure their activities are not likely to jeopardize the continued existence of federally listed species or destroy or adversely modify designated critical habitat. Section 7(a)(2) of the ESA applies to all action's federal agencies fund, authorize, permit, or carry out in which there is discretionary federal involvement or control.

Section 2081 of the California Fish and Game Code states CDFW may authorize, by permit, the “take” of endangered species, threatened species, and candidate species if the take is incidental to an otherwise lawful activity and if the impacts of the authorized take shall be minimized and fully mitigated. The measures required to meet this obligation shall be roughly proportional in extent to the impact of the authorized taking of the species.

Throughout the sections below, where applicable, the determination of “***affect”*** under FESA and ***“take”*** under CESA is indicated.

Based on queries made to the USFWS, NMFS and CDFW-CNDDB databases, there would be ***no effect/no impact*** to the following FESA/CESA and/or fully protected species or CDFW Species of Concern (SSC) identified as potentially occurring within the project ESLs/BSAs as either there is no suitable habitat for the species or the ESLs/BSAs are outside of the geographic range of the species.

- Cascades frog *(Rana cascadae)* - state candidate endangered, CDFW SSC
- American (Northern) goshawk *(Actinemys marmorata)* – CDFW SSC
- California condor *(Gymnogyps californianus)* – Pacific Northwest Non-Essential Experimental Population
- Fork-tailed storm petrel *(Hydrobates furcatus)* – CDFW SSC
- Mountain plover *(Charadrius montanus)* – CDFW SSC

- Tufted puffin *(Fratercula cirrhata)* – CDFW SSC
- Western snowy plover *(Charadrius nivosus nivosus)*–Pacific Coast DPS – federal threatened, CDFW SSC
- White-tailed kite *(Elanus leucurus)* – State fully protected
- Yellow-billed cuckoo *(Coccyzus americanus)* – federal threatened, state endangered
- Yellow rail *(Coturnicops noveboracensis)* – CDFW SSC
- Chinook salmon *(Oncorhynchus tshawytscha)* –California Coastal ESU – federal threatened
- Eulachon *(Thaleichthys pacificus)*–Northern DPS – CDFW SSC
- Green sturgeon *(Acipenser medirostris)* – Northern DPS (Pop. 2) – CDFW SSC
- Green sturgeon *(Acipenser medirostris)* – Southern DPS (Pop. 1) – federal threatened, CDFW SSC
- Longfin smelt *(Spirinchus thaleichthys)* – federal threatened, state endangered
- Steelhead (*Oncorhynchus mykiss irideus)*–Northern California DPS (Pop. 48) (summer run) – federal threatened, state endangered and critical habitat
- Steelhead (*Oncorhynchus mykiss irideus)*–Northern California DPS (Pop. 48) (winter run) – federal threatened, CDFW SSC and critical habitat
- Tidewater goby *(Eucyclogobius newberryi)* – federal endangered, CDFW SSC
- Green sea turtle *(Chelonia mydas)* – federal endangered, state threatened
- Olive Ridley sea turtle *(Lepidochelys olivacea)* – federal threatened, state endangered
- Leatherback sea turtle *(Dermochelys coriacea)* – federal endangered, state endangered
- Blue whale *(Balaenoptera musculus)* – federal endangered
- Fin whale *(Balaenoptera physalus)* – federal endangered, state endangered

- Humpback whale *(Megaptera novaeangliae)* –Western North Pacific DPS - federal endangered
- Killer whale *(Orcinus orca)*-Southern Resident DPS – federal endangered
- North Pacific right whale *(Eubalaena japonica)* – federal endangered, state fully protected
- Sei whale *(Balaenoptera borealis)* – federal endangered
- Sperm whale *(Physeter macrocephalus)* – federal endangered
- California wolverine *(Gulo gulo)* –state threatened and fully protected
- Sonoma tree vole *(Arborimus pomo)* – CDFW SSC
- White-footed vole *(Arborimus albipes)* - CDFW SSC
- Crotch's bumble bee *(Bombus crotchii)* – state candidate endangered
- Franklin's bumble bee *(Bombus franklini)* – federal endangered, state candidate
- Shasta crayfish *(Pacifastacus fortis)* – federal endangered, state endangered
- Vernal pool fairy shrimp *(Branchinecta lynchi)* – federal threatened

Amphibian Species (Foothill yellow legged frog, Pacific tailed frog, Southern torrent salamander, Northen red-legged frog)

Affected Environment

Four amphibian Species of Special Concern are potentially present within the Orleans MS BSA:

- Foothill yellow-legged frog (FYLF) (*Rana boylii)*–Northwest/North Coast Clade) (Pop. 1)
- Northern red-legged frog (NRLF) (*Rana aurora*)
- Pacific tailed frog (PTF) *(Ascaphus truei)*
- Southern torrent salamander (STS) (*Rhyacotriton variegatus*)

Cheenitch Creek within the Orleans ESL may provide potential habitat for (3) three of these species: FYLF, PTF and STS. The Klamath River within the Orleans BSA

likely provides breeding habitat for Foothill yellow-legged frog, and the un-named drainage may provide foraging and refugia habitat for FYLF.

The special status amphibians considered in this analysis require intermittent or perennial waters for early life stages (larval stages) and breeding. During their adult phases, these species are primarily found in or within a few feet of these waters. NRLF, however, can also be found in surrounding riparian and woodland habitats (Stebbins and McGinnis, 2012; Thomson et al., 2016).

While the Buckhorn ESL lacks potential habitat that could support PTF, STS or FYLF, it does contain potential suitable habitat for NRLF. The intermittent drainage, riparian habitat (Arroyo willow scrub), and adjacent redwood forest within the Buckhorn ESL and BSA could provide potential suitable habitat for NRLF. Additionally, there are several pools and/or ponds in the project vicinity that could provide breeding habitat for this species.

Environmental Consequence

At the Orleans location, the project would install a water line within the roadway and install electrical conduit along the road shoulder. Water line and conduit would be installed over or under existing culverts, including a perennial water course (Cheenitch Creek), but would not modify riparian habitat through direct dredge/fill or by removing shade trees or other habitat features. No work would occur within Cheenitch Creek, any other drainage or aquatic habitat, or surrounding woodlands. Because no work would occur within any aquatic habitat, and because work would be entirely limited to developed areas (Buckhorn CVEF), the project is not anticipated to have any direct impacts on special status amphibians.

There is some potential that project construction could degrade water quality, such as by increasing sediment loads associated with ground disturbance or through accidental spills of fuels, oils, or other construction-related fluids. Degraded water quality could harm all life stages of the special status amphibian and reptile species listed above if they are in or downstream of work areas. Standard Measures and Best Management Practices to protect water quality (Section 1.6, Measures WQ-1 and WQ-2) would avoid and minimize these potential indirect impacts on special status amphibians; therefore, "*No Impact*" to special status amphibians is expected.

Avoidance, Minimization and Mitigation Measures

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed for Foothill yellow legged frog, Pacific tailed frog, Southern torrent salamander, or Northern red-legged frog.

Western Pond Turtle

Affected Environment

Western pond turtle (WPT) (*Emys marmorata*), a proposed federal threatened and a CDFW Species of Special Concern has the potential to occur in the Orleans MS BSA. This species does not have suitable habitat within the Buckhorn BSA.

The WPT occurs in a variety of permanent and intermittent aquatic habitats, such as ponds, marshes, rivers, streams, and ephemeral pools. They require suitable basking and haul-out sites, such as emergent rocks, large instream woody debris, or floating logs. These turtles require an upland nesting site in the vicinity of the aquatic habitat, typically created in grassy, open fields with soils that are high in clay or silt fraction. Egg laying usually occurs between March and August. This species may spend the winter in an inactive state, on land or in the water, or, in other cases, may return active and in the water throughout the year.

The Klamath River and a nearby quarry pond may provide suitable aquatic habitat for WPT, and adjacent banks, grassy hillsides within the BSA may provide nesting habitat for this species. There are also areas within the ESL and BSA that could provide overwintering and potential marginal nesting habitat.

Environmental Consequence

While no species focused surveys were conducted within the project BSAs, the project is within the species potential range and suitable habitat is present at the Orleans MS project location; therefore, WPT are assumed present.

As discussed above, indirect impacts via degradation of water quality would be controlled via standard water quality BMP measures (Section 1.6). The project would install a water line within the roadway, install electrical conduit along the road shoulder, and connecting electrical components (UT NEW and an electrical cabinet) would include some work off the road shoulder in potential marginal upland habitat. No indirect impacts are anticipated due to habitat modification.

Direct impacts to WPT are not anticipated because areas within the project footprint consist of primarily hardscapes and heavily disturbed/compacted road shoulder subject to regular mowing that are unlikely to provide nesting or overwintering habitat for turtles. The less compacted areas proposed for the addition of a new power pole and cabinet are unlikely to provide nesting habitat for WPT (personal correspondence, Matt Parker USFWS); no suitable overwintering habitat was identified within the project footprint.

Per FESA, official effect determinations cannot be made for proposed species listed under the Federal Endangered Species Act; however, if WPT becomes listed prior to project construction, Caltrans would consult USFWS for concurrence on project avoidance and minimization measures through informal consultation.

The project would employ Standard Measures and Best Management Practices including animal entrapment prevention measures ((Section 1.6, Measure BR-2(G)); thus, project development would result in a “Less Than Significant Impact” on this species.

Avoidance, Minimization and Mitigation Measures

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

Bird Species (American peregrine falcon, bald eagle, bank swallow, black swift, golden eagle, marbled murrelet, and Northern spotted owl)

Affected Environment

American Peregrine Falcon, Bald Eagle, Bank Swallow, Black Swift, and Golden Eagle

Several special status bird species were identified as having the potential to occur within the project BSA. The peregrine falcon, bald eagle, black swift, and golden eagle have potentially suitable habitat present in the Orleans BSA. The bald eagle, bank swallow, and golden eagle have potentially suitable habitat present in the Buckhorn BSA.

- American peregrine falcon (*Falco peregrinus anatum*) - state fully protected species
- Bald eagle (*Haliaeetus leucocephalu*s) - state endangered and fully protected species.
- Bank swallow (*Riparia riparia*) - state threatened species.
- Black swift (*Cypseloides nige*r) - CDFW Species of Special Concern.
- Golden eagle (*Aquila chrysaetos*) - state fully protected species.

Potentially suitable nesting habitat for American peregrine falcon may be present within portions of the Orleans MS BSA, although no suitable cliffs have been observed within the BSA this species is also known to nest on bridges. The SR-96 Orleans bridge is just to the East of the Orleans MS. The closest CNDDB record of this species is approximately 2.5 miles from the Orleans MS ESL.

Potentially suitable nesting habitat for bald eagles is present within portions of both BSAs for the project, with suitable large and/or old-growth trees. Potentially suitable nesting habitat for golden eagles is present within portions of the BSAs that are adjacent to open grasslands.

The Orleans MS BSA may provide potential suitable black swift nesting habitat along shaded or protected cliffs along the Klamath River. There is a bank swallow observation within 3 miles of the Buckhorn CVEF BSA. Although possible, it is unlikely that the BSA provides suitable nesting habitat for this species and no habitat exists within the Buckhorn ESL. Additionally, no bank swallow observations have been made within 20 miles of the Orleans MS BSA.

Marbled Murrelet

Marbled murrelet (MAMU) (*Brachyramphus marmoratus*), a federal threatened and state endangered species, occurs along the Pacific coast from Alaska to California, foraging in marine subtidal and pelagic habitats for small fish and invertebrates. Breeding occurs in mature, coastal coniferous forest with nests built in tall trees. The species requires dense, mature forests of redwood and Douglas-fir for breeding.

No habitat exists within the Orleans MS BSA for this species as it is too far inland.

No protocol surveys were conducted for MAMU. According to CNDDB, the closest MAMU observation is greater than 3 miles from the Buckhorn BSA, with two

observations within 5 miles of the project. Presence was inferred at Buckhorn due to its distance from the coast and based on eVEG mapping showing presence of suitable habitat within approximately 120 feet of the ESL. No critical habitat is mapped in the vicinity of the Buckhorn CVEF facility.

Northern Spotted Owl

The northern spotted owl (NSO) (*Strix occidentalis caurina*) is a federally and state threatened owl that inhabits the forests of the Pacific Coast region from southwestern British Columbia to Marin County in California. In northern California, NSOs can be found in dense, old-growth, multi-layered, mixed conifer, redwood, and Douglas-fir forests, from sea level to 6,600 feet in elevation. Spotted owls are primarily nocturnal and normally spend their days perched in a protected roost. Foraging typically occurs in forested habitats near a permanent water source (USFWS 2011).

NSO nest sites are often located on broken-top trees and cavities, although individuals will also use existing platforms such as abandoned raptor nests, squirrel nests, mistletoe brooms, and debris piles.

Nest sites are frequently sited near streams and creeks and are typically located low to mid-slope rather than near ridge lines (Folliard et al., 2000). NSOs have strong breeding site fidelity, producing one brood per season. In inland Douglas-fir habitats, the typical home range for NSOs is 1.3 miles (USFWS 2011; CDFW 2016). Regionally, NSOs nest from approximately February 1 through July 31 (USFWS 2011).

Several Activity Centers (ACs) are documented within 1 mile of the Buckhorn ESL, (HUM0672 and HUM1125). The closest AC to the Orleans MS is mapped approximately 0.85 mile away (HUM0245). While no NSO surveys were conducted during project development, NSO presence is assumed based on existing data and habitat. Nesting and foraging habitat for NSO is present within both project BSAs. Foraging and nesting/roosting habitat exists within approximately 165 feet from the ESL at the Buckhorn location. At the Orleans location, no nesting or roosting habitat exists within 328 feet (100 meters) of the ESL.

Critical habitat for NSO is within the Orleans MS BSA and approximately 0.2 mile from the ESL. No critical habitat for NSO is mapped in the vicinity of the Buckhorn CVEF facility.

Environmental Consequences

American Peregrine Falcon, Bald Eagle, Bank Swallow, Black Swift, and Golden Eagle

Impacts to special status birds are not anticipated; although some potential for nesting habitat for these species exists within the project BSAs, no nesting habitat exists within either of the project ESLs. No removal of potential nesting habitat for any of these species would occur as part of this project; therefore, the project would have **no impact** on these bird species.

Per CESA, the project would have ***no "take"*** of American peregrine falcon, bald eagle, bank swallow, black swift, or golden eagle.

Marbled Murrelet

As no vegetation removal is proposed for this project within forested areas adjacent to the project locations, direct impacts to suitable habitat would not occur.

Potential construction-related impacts due to visual disturbances are not anticipated as there would be no visual disturbances to MAMU nests because no activities at Buckhorn would occur within a visual line-of-sight of 328 feet (100 meters) from any known nest locations (per USFWS guidance (USFWS 2020)).

During construction, lighting would be directed specifically on the portion of the work area actively under construction; therefore, no impacts to marbled murrelet from temporary lighting are anticipated.

Similar to NSO, construction-related noise levels are not expected to impact MAMU as the Standard Measures and Best Management Practices described in Section 1.6 and best practices identified in the PLOC would avoid such impacts. These measures would limit construction noise and visual disturbance during the breeding season.

Per FESA, it is anticipated the project ***may affect, but is not likely to adversely affect*** marbled murrelet. The Programmatic Letter of Concurrence (PLOC) issued by the USFWS (USFWS 2022) will be used for Section 7 consultation for potential effects of the project on this species.

Per CESA, the project would have ***no "take"*** of marbled murrelet.

Given that implementation of Standard Measures and Best Management Practices, including those identified in the PLOC, for MAMU (Section 1.6, Measure BR-2) would control auditory disturbances and because visual disturbance would occur substantially far from potential nesting habitat, it was determined that project development would have "*No Impact*" to MAMU.

There would be no effect/no impact to MAMU critical habitat as no designated critical habitat has been identified within either of the project BSAs.

Northern Spotted Owl

There would be no visual disturbances to NSO nests because proposed project activities at both Orleans and Buckhorn would be a similar level to existing visual disturbance conditions (large trucks, vehicle traffic, maintenance equipment) and both locations have a barrier of dense, small diameter forest and shrubs between the activity area and potential nesting habitat such that the work would not occur within a visual line-of-sight of 328 feet (100 meters) from any known or potential nest locations (per USFWS guidance (USFWS 2020)).

As no vegetation removal is proposed for this project within forested areas adjacent to the project locations, direct impacts to suitable habitat or critical habitat would not occur.

Daytime ambient sound levels within the Orleans ESL and along SR 96 are estimated as *Moderate* (71-80 decibels [dB]) to High (81-90 decibels [dB]).

Ambient sound levels within the Buckhorn ESL are estimated to be *High* to *Very High* (91-100 dBs). Sound levels for equipment used in project activities were estimated as *Moderate* (71-80 dB) to *High* (80-90 dB) (Table 3 below).

Any construction activities that exceed 90 dB could result in disturbance or harassment of NSO at the Buckhorn location due the occurrence of nesting and roosting habitat within 165-feet of proposed project activities. There is no potential for auditory disturbance of NSO at the Orleans location.

Table 3. Sound Levels of Proposed Construction Equipment

Measured Sound Source	"Standardized" Value dB at 50 ft[1]	Relative Sound Level
Pickup Truck (driving)	71	Moderate
Asphalt Paver	77	Moderate
Sweeper	80	Moderate
Roller (high end)	80	Moderate
Air Compressor	80	Moderate
Excavator	81	High
Compactor (high end)	82	High
Jumping Jack Compressor	83	High
Backhoe (high end)	84	High
Dump Truck	85	High
Concrete Mixer (high end)	85	High
Concrete Pump Truck	85	High
Crane (Orleans MS)	85	High
Loader	87	High
Generator	87	High
Skid-steer with Auger	88	High
Jackhammer	89	High
Trencher[2]	<90	High
Concrete Saw	90	High

[1] The measured "Actual" emission level at 50 feet for each piece of equipment based on hundreds of emission measurements performed on CA/T work site (FHWA 2017)

[2] This value is an approximate. The trencher produces a range of values based on the surface and substrate composition with the higher range of noise estimated to be similar to a concrete saw.

The Programmatic Letter of Concurrence (PLOC) issued by the USFWS (USFWS 2022) will be used for Section 7 consultation for potential effects of the project on NSO.

The PLOC is an agreement wherein the permitting agency, USFWS, acknowledges and agrees that for specific actions, the use of pre-approved measures would eliminate the risk of adversely affecting federally listed species. The actions, measures, and species are listed in the PLOC. Therefore, with the incorporation of the PLOC and Standard and Best Management Practices in Section 1.6, project noise levels would not substantially impact NSO.

Under FESA, the proposed project***, may affect, but is not likely to adversely affect*** NSO.

Under CESA, the project would result in **no "take"** of NSO.

Given that implementation of Standard protection measures, including those identified in the PLOC, for NSO (Section 1.6, Measure BR-2) would control auditory disturbances and because visual disturbance would occur substantially far from potential nesting habitat, it was determined that project development would not have a **substantial adverse impact** on this species.

Although there is critical habitat within the Orleans BSA, there would be **no effect/no impact** because the critical habitat is outside the project's ESL. Also, there is no critical habitat for NSO mapped in the vicinity of the Buckhorn CVEF facility.

Avoidance, Minimization and Mitigation Measures

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed for American peregrine falcon, bald eagle, bank swallow, black swift, golden eagle, marbled murrelet and Northern spotted owl.

Fish Species

Affected Environment

Waterways and associated tributaries within the Klamath River watershed (Orleans MS) and the North Fork Mad River watershed (Buckhorn CVEF) provide suitable spawning, rearing, and/or migration habitat for the following species:

- Chinook salmon (*Oncorhynchus tshawytscha*) Upper Klamath and Trinity Rivers ESU (Pop. 30) - state threatened species and CDFW Species of Special Concern
- Coastal cutthroat trout (*Oncorhynchus clarkii clarkii*) - CDFW Species of Special Concern
- Coho salmon (*Oncorhynchus kisutch*) Southern Oregon/Northern California Coast (SONCC) ESU (Pop. 2) - federal and state threatened species

- Klamath River lamprey (*Entosphenus similis*) - CDFW Species of Special Concern
- Lower Klamath marbled sculpin (*Cottus klamathensis polyporus*) - CDFW Species of Special Concern
- Pacific lamprey (*Entosphenus tridentatus*) - CDFW Species of Special Concern
- Steelhead *(Oncorhynchus mykiss irideus)* Klamath Mountains Province (summer and winter runs) - state candidate endangered and CDFW Species of Special Concern
- Western brook lamprey *(Lampetra richardsoni)* - CDFW Species of Special Concern

Potentially suitable spawning, rearing, and/or migration habitat is present for each species within the project BSA.

Environmental Consequence

Given that no work is anticipated to occur below the ordinary high water mark (OHWM) of any waterways, no riparian vegetation would be removed, and Standard Measures and Best Management Practices to protect water quality (Section 1.6, Measures WQ-1 and W-1-2) would be implemented, Caltrans anticipates "*No Impact*" to any fish species.

Under FESA, the project would have ***no effect*** to coho salmon–Southern Oregon/Northern California Coast ESU and critical habitat.

Under CESA, the project would have ***no impact or result in "take"*** of the following state listed or candidate species:

- Chinook salmon–upper Klamath and Trinity Rivers ESU
- Coho salmon–Southern Oregon/Northern California Coast ESU and critical habitat
- Steelhead–Klamath Mountains Province DPS (summer and winter runs)

Avoidance, Minimization and Mitigation Measures

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

Denning Mammal Species (Fisher, Pacific (Humboldt) marten, Ringtail)

Affected Environment

Three denning mammal species were identified as having the potential to occur within the BSAs at both the Orleans MS and Buckhorn CVEF. The species include:

- Fisher (*Pekania pennanti)* West Coast DPS - CDFW Species of Special Concern
- Pacific (Humboldt) marten (*Martes caurina humboldtensi*s) Coastal DPS - federally threatened and state endangered species and CDFW Species of Special Concern
- Ringtail (*Bassariscus astutus*) - CDFW fully protected species

The Northern Coastal California (NCC) Extant Population Area (EPA) of Pacific marten is approximately 3 miles west of the Orleans MS BSA and is known to support approximately 60-80 individuals as of 2012 (USFWS 2018). Based on habitat suitability models, suitable Pacific marten dispersal habitat may be present within the southern portions of the ESL and BSA at the Orleans MS location and throughout the Buckhorn CVEF BSA.

Similarly, while potentially suitable denning habitat for fisher and ringtail may be present within the project BSAs, only foraging/dispersal habitat for either species is likely present within the ESL (USFWS 2016).

Environmental Consequence

No potential resting or denning habitat would be removed. Potential impacts from project activities to fisher, Pacific (Humboldt) marten, and ringtail are limited to auditory and visual disturbances, similar to those for NSO.

Given that implementation of Standard Measures and Best Management Practices, including those identified in the PLOC, for NSO and Pacific marten (Section 1.6, Measures BR-2E and BR2-F), would control auditory and visual disturbances and

because no denning or resting habitat would be directly affected, it was determined that project development would have a “Less Than Significant Impact” on these denning mammal species.

Under FESA, the proposed project ***may affect, but is not likely to adversely affect*** Pacific marten–Coastal DPS. Per USFWS concurrence, the PLOC (USFWS 2022) would be used for Section 7 consultation for potential effects of the project on Pacific marten–Coastal DPS.

Under CESA, the project would result in ***no “take”*** of Pacific marten–Coastal DPS or ringtail.

There also would be no impact to fisher-West Coast DPS.

Avoidance, Minimization and Mitigation Measures

Based on the determinations made in the CEQA Environmental Checklist, no mitigation measures are proposed for Fisher, Pacific (Humboldt) marten, or Ringtail.

Bat Species (Pallid bat, Townsend’s big-eared bat)

Affected Environment

Two special status bat species have the potential to occur within the project BSA.

- Pallid bat (*Antrozous pallidus*) - CDFW Species of Special Concern
- Townsend’s big-eared bat ((*Corynorhinus townsendii*) - CDFW Species of Special Concern

The Pallid bat typically occurs at lower elevations throughout California and can be found in grasslands, shrublands, and woodlands. They are most common in open, dry habitats with rocky areas for roosting.

The Townsend’s big-eared bat is known to occur in coniferous forests, native prairies, riparian communities, active agricultural areas, and coastal areas. This species typically roosts in caves, tunnels, mines, buildings, and other cave-like spaces, including rock crevices and hollow trees. Townsend’s big-eared bats are extremely sensitive to disturbance of roosting sites and a single visit may result in abandonment of the roost site.

Surveys for bats were not conducted for this project; however, structures within the Orleans MS and Buckhorn CVEF were inspected for bat signs with negative results. Suitable foraging and roosting habitat for both species is present in the forest communities at both locations within the project BSAs.

Environmental Consequence

The Orleans MS and the Buckhorn CVEF are equipped with night lighting as the facilities are utilized, at times, during evening and nighttime hours. Construction lighting would not be anticipated to interfere with foraging behavior for either species because construction lighting, if utilized, would mimic existing operational use. Similarly, any potential addition of area lighting at the Orleans MS would add lighting at a similar brightness and color as existing to underlit areas within the MS, and would not contribute to any substantial increase in light pollution. Additionally, no suitable bat roosting habitat would be removed or otherwise impacted as a result of this project. Therefore, no disturbance and "*No Impact*" to these bat species are expected to occur as a result of project development.

Avoidance, Minimization and Mitigation Measures

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

Essential Fish Habitat

Affected Environment

Essential Fish Habitat (EFH) for Pacific salmon (Chinook and coho salmon) is within the project BSA in the Klamath River, and within the ESL associated with Cheenitch Creek (Orleans MS). No EFH is present within the BSA at the Buckhorn CVEF.

Environmental Consequence

Given that no work is anticipated to occur below the OHWM of any waterways, Caltrans does not anticipate any effects to EFH for Pacific salmon.

The MSA is the primary law governing marine fisheries management in United States federal waters. Provisions of the MSA require consultation with NMFS for actions that may adversely affect EFH for federally managed fish and invertebrates.

For the purposes of the MSA, EFH includes “those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity” (MSA § 3(10)).

Under the MSA, the project would not impact the following EFH:

- Chinook salmon EFH
- Coho salmon EFH
- Groundfish EFH
- Coastal Pelagics EFH

Avoidance, Minimization and Mitigation Measures

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

Invertebrate Species (Monarch Butterfly, Suckley’s Bumble Bee, Western Bumble Bee)

Affected Environment

Three special status invertebrate species have the potential to occur within the project BSAs:

- Monarch butterfly (*Danaus plexippus*) - proposed federally threatened
- Suckley’s bumble bee (*Bombus suckleyi*) – state candidate endangered, proposed federally endangered
- Western bumble bee (*Bombus occidentalis*) - state candidate endangered, federal status under review

The monarch is a migratory species of butterfly known to overwinter in a variety of habitat types along coastal California, including Humboldt County. Overwintering habitat consists of a grove of trees with the necessary microclimate typically within 1.5 miles of the coast (Western Association of Fish and Wildlife Agencies (WAFWA) 2019). Segments of the project ESLs at both locations provide low to medium habitat based on a habitat suitability model (Caltrans Monarch Habitat Suitability Model); however, the ESLs lack suitable overwintering habitat and no larval host plants (milkweed (*Asclepias* spp.)) were observed in or adjacent to the ESLs.

Suitable habitat for Monarch butterfly at both project locations consists of foraging habitat only.

Suckley's bumble bee and Western bumble bee are considered generalist foragers using a variety of flower types in a variety of habitat types. Suckley's bumble bee is also called Suckley's cuckoo bumble bee because this species acts as a type of 'social-parasite,' invading the nests of the host bumble bees, often the Western bumble bee, and relies on host species workers to provision its larvae. Therefore, the success of the Suckley's bumble bee is directly associated with that of the Western bumble bee.

The Western bumble bee typically constructs nests (occupied March through October) in underground burrows or crevices in holes that have been created by other animal nests and in open west-southwest slopes bordered by trees.

Environmental Consequence

All work would occur in previously disturbed, hardscaped areas, or areas that are subject to regular disturbance such a mowing. Thus, the proposed project would not modify or remove foraging habitat for monarch butterfly, Suckley's cuckoo bumble bee, or Western bumble bee.

Because the project does not have overwintering habitat and would not remove foraging habitat for the Monarch, the project would have a "*No Impact*" on the Monarch butterfly.

Bumble bee nests are not anticipated in the hard packed road shoulder where excavation for electrical conduit would occur. There is a very low possibility that the area proposed for the addition of a new power pole and cabinet may offer some potential nesting habitat for bumble bees. A preconstruction survey would be conducted prior to ground disturbance in these areas.

The project would employ Standard Measures and Best Management Practices, including pre-construction species surveys (Section 1.6, Measure BR-2(D)); thus, Caltrans has determined that project development would have a "Less Than Significant Impact" on bumble bee species.

Under FESA, with implementation of Standard Measures and Best Management Practices (Section 1.6), the project would have **no effect** on monarch butterfly, Suckley's cuckoo bumble bee, and Western bumble bee.

Under CESA, the project would result in **no "take"** of Suckley's cuckoo bumble bee and Western bumble bee.

Avoidance, Minimization and Mitigation Measures

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

MIGRATORY BIRDS

Regulatory Environment

The Federal Migratory Bird Treaty Act (MBTA) (15 United States Code [USC] 703-711), Title 50 Code of Federal Regulations (CFR) Part 21 and 50 CFR Part 10, and the CFGC Sections 3503, 3513, 3800, and AB-2627 protect migratory birds, their occupied nests, and their eggs from disturbance or destruction. The MBTA provides protection in part by restricting the disturbance of nests during the bird nesting season.

Affected Environment

While no surveys for migratory birds were conducted, there is suitable habitat for numerous migratory birds within the project ESLs and BSAs. No nesting birds have been observed using any of the buildings/structures at the Orleans MS or Buckhorn CVEF during any of the site visits or by maintenance staff.

Environmental Consequence

No active nests would be removed or altered during project activities. With implementation of Standard Measures and Best Management Practices, including pre-construction nesting bird surveys (Section 1.6, Measure BR-2(A)), project impacts to migratory birds would be "No Impact."

Avoidance, Minimization and Mitigation Measures

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

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

A "**No Impact**" determination was made for Questions b), c), d), e) and f) listed within the CEQA Biological Resources section. These determinations were based on the scope of work, including minimal work outside of previously disturbed or paved areas, the description of proposed work methods, and the *Natural Environment Study/Minimal Impacts* (Caltrans 2025c). Implementation of the proposed project would not result in any conflicts with local, regional, or state plans, policies, or ordinances.

Wetland features, riparian areas and potentially jurisdictional watercourses were identified as occurring within the project ESLs; however, these features would not be directly impacted and potential indirect impacts would be avoided with implementation of Caltrans Standard Measures and Best Management Practices that project water quality (Section 1.6–WQ-1 and WQ-2). Similarly, Standard Measures and Best Management Practices would ensure that invasive species noted as occurring within the ESL would not proliferate (BR-3) and that nesting migrating birds would be protected (BR-2(A)).

Special status species have been identified as occurring within the project ESLs (both at the Orleans MS and Buckhorn CVEF locations). See below for discussion of special status plants and animals and the "*Less Than Significant Impact*" determination made for Question a).

> ***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?***

Record searches and habitat assessments were conducted to determine whether special status species have the potential to be present in the project area. Special status plant and animal species with the potential to occur are discussed further in the Plant Species and Animal Species sections and within the species tables in Appendix C. Federal (USFWS and NMFS) and state (CDFW and CNPS) lists of potential species in the vicinity are included in Appendix D.

There would be "less than significant impacts" on the following species that could potentially occur within the project ESL/BSAs:

- Hooker's catchfly (*Silene hookeri*)
- Northwestern pond turtle (*Emys marmorata)*
- Marbled murrelet (*Brachyramphus marmoratus*)
- Northern spotted owl *(Strix occidentalis caurina)*
- Fisher *(Pekania pennanti)*–West Coast DPS
- Pacific (Humboldt) marten (*Martes caurina*)–Coastal DPS
- Ringtail *(Bassariscus astutus)*
- Suckley's cuckoo bumble bee (*Bombus suckleyi)*
- Western bumble bee (*Bombus occidentalis)*
- Migratory birds

There would be "no impact/no take" on the following species that could potentially occur within the project ESL/BSAs:

- Orleans iris *(Iris tenax* subsp*. klamathensis)*
- Foothill yellow legged frog *(Rana boylii)*
- Northern red-legged frog (*Rana aurora)*
- Pacific tailed frog (*Ascaphus truei)*
- Southern torrent salamander *(Rhyacotriton variegatus)*
- American peregrine falcon (*Falco peregrinus anatum*)
- Bald eagle (*Haliaeetus leucocephalus)*
- Bank swallow *(Riparia riparia)*
- Black swift *(Cypseloides niger)*
- Golden eagle (*Aquila chrysaetos)*
- Chinook salmon (*Oncorhynchus tshawytscha*)–Upper Klamath and Trinity Rivers ESU
- Coastal cutthroat trout (*Oncorhynchus clarkia clarkia*)

- Coho salmon (*Oncorhynchus kisutch*)–Southern Oregon/Northern California Coast ESU
- Klamath River lamprey *(Entosphenus similis)*
- Lower Klamath marbled sculpin (*Cottus klamathensis polyporus*)
- Pacific lamprey (*Entosphenus tridentatus*)
- Steelhead (*Oncorhynchus mykiss irideus*)–summer run (Pop. 48) and winter run (Pop. 49)
- Western brook lamprey (*Lampetra richardsoni*)
- Pallid bat (*Antrozous pallidus*)
- Townsend's big-eared bat *(Corynorhinus townsendii)*
- Monarch butterfly *(Danaus plexippus)*

For all species, the project would not have a substantial adverse effect, either directly or through habitat modifications. See the above sections for specific details about project-related impacts on each of these species.

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?				✓
Would the project: b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?				✓
Would the project: c) Disturb any human remains, including those interred outside of dedicated cemeteries?				✓

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as surveys for archaeological and historic resources.

Archaeological surveys were conducted throughout the project ESL in 2024 and 2025. The archaeological surveys, records searches, and tribal consultation resulted in additional investigations for historic and archaeological resources at the Orleans MS location. In 2025, an extended Phase I investigation (XPI) (Orleans MS only) and an evaluation of historic resources were conducted. Results of these investigations are documented in the *Archaeological Survey Report* (ASR) (Caltrans 2025d), *Extended Phase One Report* (Caltrans 2025e), and *Historical Resources Evaluation Report* (HRER) (Caltrans 2025f).

The HRER determines there will be no impacts to historic properties. The results of the ASR and the XPI demonstrate that, within the proposed excavation areas, no archaeological resources are present. Therefore, the proposed project would have "No Impact" on Cultural resources.

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?				✓
Would the project: b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				✓

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the *Air Quality, Greenhouse Gas, and Energy Analysis for the Orleans MS and Buckhorn CVEF Project* dated May 2025 (Caltrans 2025b).

Potential impacts to Energy are not anticipated as the project's construction activities would be temporary and limited to the necessary operating of construction equipment, which would have no noticeable effect on peak or baseline demands for energy.

Operationally, the energy use associated with the upgraded facilities would be similar to existing uses, with the exception of the proposed Level 3 EV chargers and the upgraded crew/equipment building at the Orleans MS. These power upgrades, while adding additional draw on the electrical system in the Orleans community area, nevertheless still represents one building and up to 4 electrical chargers, a negligible increase in the total local and regional power demand. Therefore, the project would have "*No Impact"* on Energy.

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.				✓
ii) Strong seismic ground shaking?				✓
iii) Seismic-related ground failure, including liquefaction?				✓
iv) Landslides?				✓
Would the project: b) Result in substantial soil erosion or the loss of topsoil?				✓
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?				✓
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?				✓
Would the project: e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal				✓

Question	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
systems where sewers are not available for the disposal of wastewater?				
Would the project: f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				✓

"No Impact" determinations listed within the CEQA Environmental Checklist Geology and Soils section are based on the scope, description, and location of the proposed project as well as the *Paleontological Identification Report*, completed May 2025 (Caltrans 2025g).

Potential impacts are not anticipated because the proposed work involves minor excavation, with no slope modification, to upgrade existing facilities within the boundaries of the Orleans MS and the Buckhorn CVEF, as well as within the roadway or roadway prism of W. Pearch Creek Road and SR 96. There are no faults in the immediate vicinity of the project areas, and no expansive soils have been identified (California Department of Conservation (DOC) 2025a).

The project would replace an existing septic leach field at the Orleans MS. Preliminary investigation of the soils indicated that two areas would adequately support the needs of the MS. Caltrans would pursue a permit from the County of Humboldt in the design stage of the project.

A records search of the Paleobiology Database and the UC Museum of Paleontology resulted in no fossils occurring with the project ESLs. With no recorded fossils and a low paleontological potential (Caltrans 2025g), the project is not expected to directly or indirectly destroy a paleontological resource. With the implementation of Standard Measures and Best Management Practices described in Section 1.6 (GS-2) that incorporate inadvertent discovery protocols, the project is anticipated to have "*No Impact*" to Geology and Soils.

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?			✓	
Would the project: b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				✓

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 (CO_2), methane (CH_4), nitrous oxide (N_2O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF_6), and various hydrofluorocarbons (HFCs). CO_2 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 CO_2 that is the main driver of climate change. In the U.S. and in California, transportation is the largest source of GHG emissions, mostly CO_2.

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 efforts to 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.

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). 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 (Caltrans 2024c).

Environmental Setting

Both the Orleans Maintenance Station and the Buckhorn CVEF, as described in Section 1.3 of this document, are located in rural areas of Humboldt County on or accessed via two-lane conventional highways, SR 96 and SR 299, respectively.

The Humboldt County Association of Governments (HCAOG), acting as the Regional Transportation Planning Agency (RTPA), guides transportation development in the project areas (HCAOG 2022). The Humboldt County General Plan Circulation, Air Quality, and Energy elements, as well as the Variety in Rural Options of Mobility (VROOM) portion of the RTP, address GHGs in the project area (County of Humboldt 2022).

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 2022 were 5,489.0 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 15% of total U.S. emissions in 2022 [U.S. EPA 2024a].) While total GHG emissions in 2022 were 17% below 2005 levels, they increased by 1% over 2021 levels. Of these, 80% were CO_2, 11% were CH_4, and 6% were N_2O; the balance consisted of fluorinated gases. From 1990 to 2022, CO_2 emissions decreased by only 2% (U.S. EPA 2024a).

The transportation sector's share of total GHG emissions remained at 28% in 2022 and continues to be the largest contributing sector (Figure 4). Transportation activities accounted for 37% of U.S. CO_2 emissions from fossil fuel combustion in 2022. This is a decrease of 0.5% from 2021 (U.S. EPA 2024a, 2024b)).

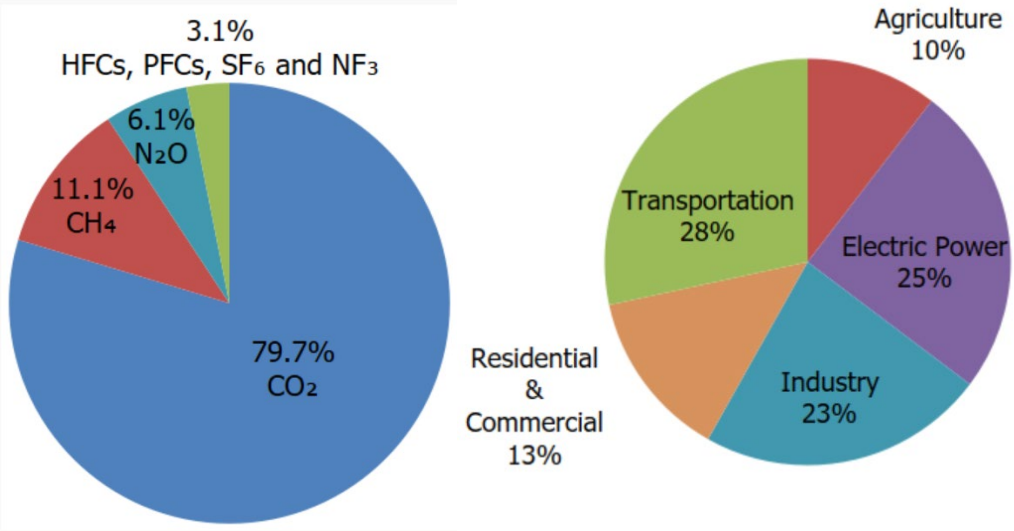


Figure 4. U.S. 2021 Greenhouse Gas Emissions

(Source: U.S. EPA 2024b)

STATE GHG INVENTORY

The CARB collects GHG emissions data for transportation, electricity, commercial/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 2021 despite growth in population and state economic output (Figure 6). Transportation emissions remain the largest contributor to GHG emissions in the state (Figure 5) (CARB 2023).

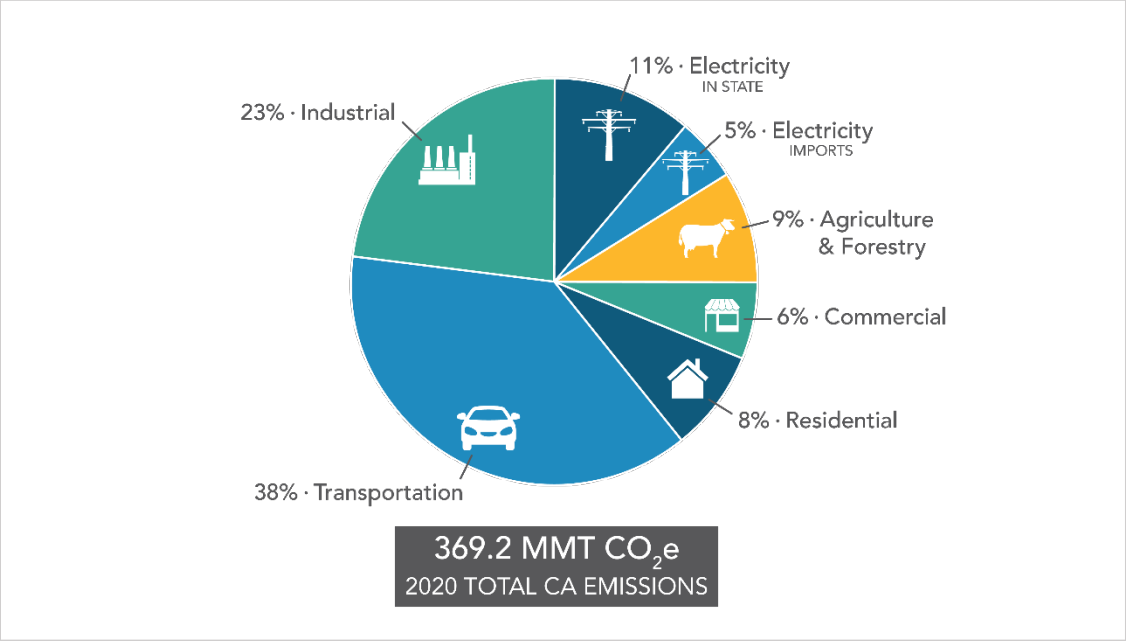


Figure 5. California 2020 Greenhouse Gas Emissions by Economic Sector

(Source: CARB 2023)

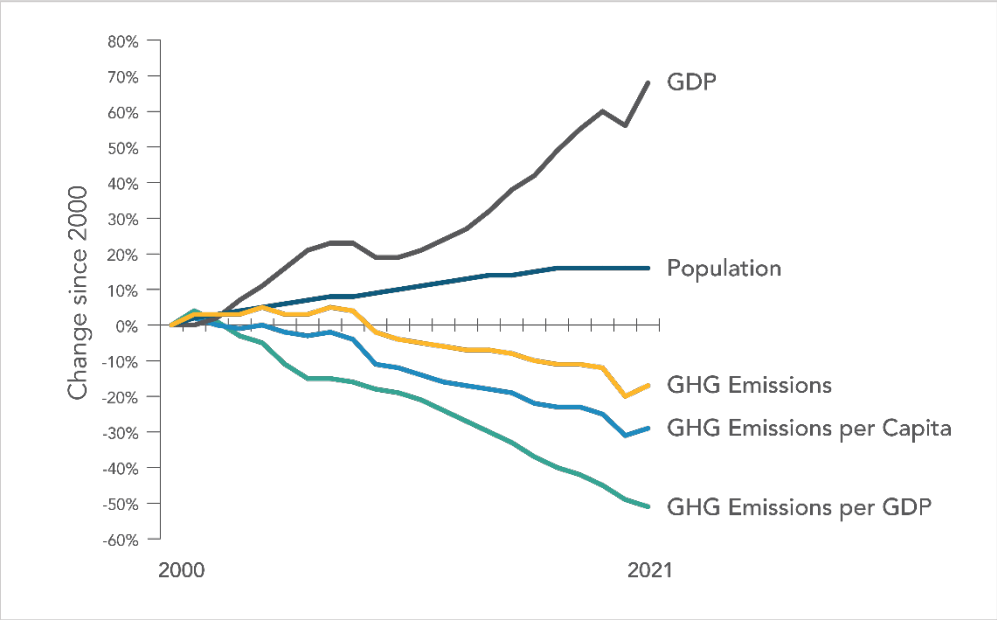


Figure 6. Change in California Gross Domestic Product (GDP), Population, and GHG Emissions since 2000

(Source: CARB 2023)

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 2022a).

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 (CARB 2021). The project area is not within the jurisdiction of an MPO and therefore not subject to CARB GHG reduction targets. However, the Regional Transportation Plan (RTP), *Variety in Rural Options of Mobility (VROOM) 2022-2042*, adopted in 2022 by the Humboldt County Association of Governments (HCAOG), serves as a guide to the development of a multi-modal regional transportation system that identifies greenhouse gas reduction goals and policies. A few key goals and policies are included in Table 4 below.

Table 4. Regional Greenhouse Gas Reduction Goals and Strategies

Title	GHG Reduction Policies or Strategies
HCAOG Regional Transportation Plan (2022)	• POLICY TRANSIT-9. Zero-emission fleets: HCAOG supports transitioning transit fleets to alternative fuels that will meet zero-emission bus (ZEB) standards. HCAOG will assist agencies in planning for ZEB rollout and in identifying funding for capital improvements necessary to support infrastructure for alternative fuels. • POLICY CLIMATE-3. Clean fuels: HCAOG will support efforts, including through public-private partnerships, to equitably expand transportation electrification, to optimize development and use of the electric grid, and to expand clean-fuel supply infrastructure.

Title	GHG Reduction Policies or Strategies
	• POLICY Emergency-2 HCAOG will lead, facilitate, and support efforts to incorporate climate change adaptation and resiliency planning into emergency transportation and evacuation planning. • POLICY LAND-1. Reduce driving: HCAOG encourages and supports land use planning and projects that accommodate reducing driving, such as through infill development, pedestrian friendly streets, bicycle infrastructure, and transit-oriented development.

The Community of Orleans, in its *Orleans Community Center Connectivity Project* (Karuk Tribe 2018), draws on the goals and policies articulated in the RTP and explicitly identifies the goal of providing a safe, walkable, and bikeable community that would result in decreased vehicle miles traveled, reduced particulate and greenhouse gas emissions, and improved public health. In Orleans, the project would temporarily modify the flow of traffic at the intersection of W. Pearch Creek Road and, potentially, along SR 96. At the Buckhorn location, the weigh station would be temporarily closed. The project would not make permanent changes to existing highway design (lane sizes, bikes, paths, etc.) and would not conflict with the driving reduction goals and policies associated with the *Orleans Community Center Connectivity Project* or the HCAOG 2022 RTP.

The proposed project supports expansion of electrification and inclusion of EV infrastructure; the project does not conflict with any plan, policy, or regulation established for the reduction of GHG.

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

This project would bring existing facilities up to current standards and would not increase the vehicle capacity of the roadway. The project would have no effect on travel demands or traffic patterns and would not increase vehicle miles traveled (VMT). While some GHG emissions during the construction period would be unavoidable, no increase in operational GHG emissions is expected. The addition of four EV chargers for Caltrans fleet vehicles at the Orleans MS would facilitate the fleet transition to electric power and contribute to a direct reduction in the facility’s GHG contribution.

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 November 2027 and occur over approximately 300 working days (198 days at Orleans and 120 days at Buckhorn). 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 (Caltrans 2025b). Table 5 below summarizes estimated GHG emissions generated by on-site equipment for the project. The total CO_2e produced during construction is estimated to be 182 metric tons.

Table 5. CAL-CET Estimates (US tons) of GHG Emissions During Construction

Construction Year	CO_2	CH_4	N_2O	BC	HFC-134a	CO_2e
2027	20	0.000	0.001	0.001	0.001	20
2028	168	0.005	0.006	0.009	0.003	162
Total	**189**	**0.005**	**0.008**	**0.010**	**0.004**	**182**

* 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.

Implementation of Caltrans' Standard Specifications, that are included with every construction contract, and Standard Measures and Best Management Practices (GHG-1 through GHG-6, TT-1) described in Section 1.6, some of which may also be required for other purposes such as air pollution control, would reduce GHG emissions resulting from construction activities. Please note that although these measures are anticipated to reduce construction-related emissions, these reductions cannot be quantified at this time.

- The construction contractor must comply with the Caltrans Standard Specifications Section 14-9. Section 14-9.02 specifically requires compliance by the contractor with all applicable laws and regulations related to air quality. Certain common regulations, such as equipment idling restrictions, that reduce construction vehicle emissions also help reduce GHG emissions.
- GHG-2: Compliance with Title 13 of the California Code of Regulations, which includes restricting idling of construction vehicles and equipment to no more than 5 minutes.
- Caltrans Standard Specification 7-1.02C "Emissions Reduction" ensures that construction activities adhere to the most recent emissions reduction regulations mandated by the California Air Resource Board.
- TT-1: Utilize a Transportation Management Plan, as applicable, to minimize vehicle delays and idling emissions.
- Maintain equipment in proper tune and working condition.

Additionally, this project anticipates utilizing a modular building for the new Buckhorn CVEF scale house, which would result in reduced onsite construction time, reduced deliveries of building materials, and therefore reduced construction-associated emissions.

CEQA Conclusion

While the proposed project would result in minor GHG emissions during construction, it is anticipated that 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 GHGs. Incorporation of standard GHG-reduction measures would ensure that the impact of GHGs would remain "*Less than Significant"* with no mitigation required under CEQA.

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:

1) Increasing the share of renewable energy in the State's energy mix to at least 50 percent by 2030
2) Reducing petroleum use by up to 50 percent by 2030
3) Increasing the energy efficiency of existing buildings by 50 percent by 2030
4) Reducing emissions of short-lived climate pollutants; and
5) 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 (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, health, and social equity 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 2021a).

Caltrans Strategic Plan

The *Caltrans 2020–2024 Strategic Plan* includes goals of stewardship, climate action, and equity. 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 the most vulnerable communities in developing and implementing Caltrans climate action activities (Caltrans 2021b).

Caltrans Policy Directives and Other Initiatives

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 GHG emissions and potential climate change impacts from the project.

- The construction contractor must comply with the Caltrans Standard Specifications Section 14-9. Section 14-9.02 specifically requires compliance by the contractor with all applicable laws and regulations related to air quality. Certain common regulations, such as equipment idling restrictions, that reduce construction vehicle emissions also help reduce GHG emissions.

- In compliance with Title 13 of the California Code of Regulations, idling time for construction vehicles and equipment will not exceed 5 minutes.
- Caltrans Standard Specification 7-1.02C “Emissions Reduction” ensures that construction activities adhere to the most recent emissions reduction regulations mandated by the California Air Resource Board.
- As feasible, utilize a Transportation Management Plan to minimize vehicle delays and idling emissions.
- Construction traffic would be scheduled and routed to reduce congestion and related air quality impacts caused by idling vehicles along local roads during peak travel times.
- As feasible, construction and demolition waste will be diverted for reuse or recycling, rather than landfill.
- All areas temporarily disturbed during construction would be revegetated with 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.
- Caltrans design teams will investigate and consider modular buildings as part of the design process.

In addition, one of the project outcomes, the installation of Level 3 EV chargers, would itself result in reduced emissions as the charges would facilitate the use and increase the range of the Caltrans EV fleet. As EV vehicles replace gasoline burning vehicles, GHG emissions are reduced.

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.

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 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 (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 (California Ocean Protection Council 2022).

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 2023).

PROJECT ADAPTATION ANALYSIS

Sea Level Rise

The proposed project locations are outside the Coastal Zone and not in an area subject to sea level rise. Accordingly, direct impacts to transportation facilities due to projected sea level rise are not expected.

Precipitation and Flooding

The project area at the Orleans MS is adjacent to the Klamath River. This rural area does not have a mapped, regulatory floodplain or an established base flood elevation, as calculated and published by the Federal Emergency Management Agency, FEMA (2025). However, the California Department of Water Resources (DWR) has provided additional review tools, known as the DWR Awareness Floodplain or the Best Available Map (BAM) that map 100-year, 200-year, and 500-year flood events utilizing different engineering studies performed by FEMA, the United State Army Corps of Engineers (USACE), and DWR. Neither the Orleans MS, nor the Buckhorn CVEF facilities are located within a regulatory floodplain or floodway (DWR 2025).

The Orleans MS is located adjacent to the Klamath River, downstream of the J.C. Boyle Dam (Klamath Falls, Oregon). The community of Orleans and the MS is mapped as occurring within a dam inundation zone (County of Humboldt 2025). However, with the removal of Copco #1, Copco #2, Iron Gate, and J.C. Boyle Dams in the fall of 2024, this inundation mapping is no longer accurate. There is no potential for the proposed project to result in any release of pollutants due to inundation.

Climate change is expected to bring potentially heavier individual precipitation events in the project region. Project elements include adding a bioswale to improve stormwater runoff and mobilized sediment capture at the Orleans MS and improving a culvert inlet at Buckhorn CVEF to prevent debris trapping and allow for improved stormwater movement.

The bioswale at Orleans complies with the National Pollution Discharge Elimination System (NPDES) permit conditions. The project will also comply with the following

2023 Humboldt County General Plan goals, policies, and standards regarding floodplains and water resources (County of Humboldt 2023b).

- **Water Resources Element Goal WR-G10.** Storm Drainage. Storm drainage utilizing onsite infiltration and natural drainage channels and watercourses, while minimizing erosion, peak runoff, and interference with surface and groundwater flows and stormwater pollution.

Wildfire

According to the Fire Hazard Severity Zone maps for SRAs, adopted by CAL FIRE in November 2007, the lands immediately surrounding the Orleans MS that are within the SRA (Figure 7) are classified as *Very High Fire* Hazard Severity Zone (CAL FIRE 2023). The Orleans MS itself is located on federal property and not within a SRA, so has no designation. The Blue Lake CVEF (Figure 8) is located within an area designated as a *Moderate* Fire Hazard Severity Zone (CAL FIRE 2023).

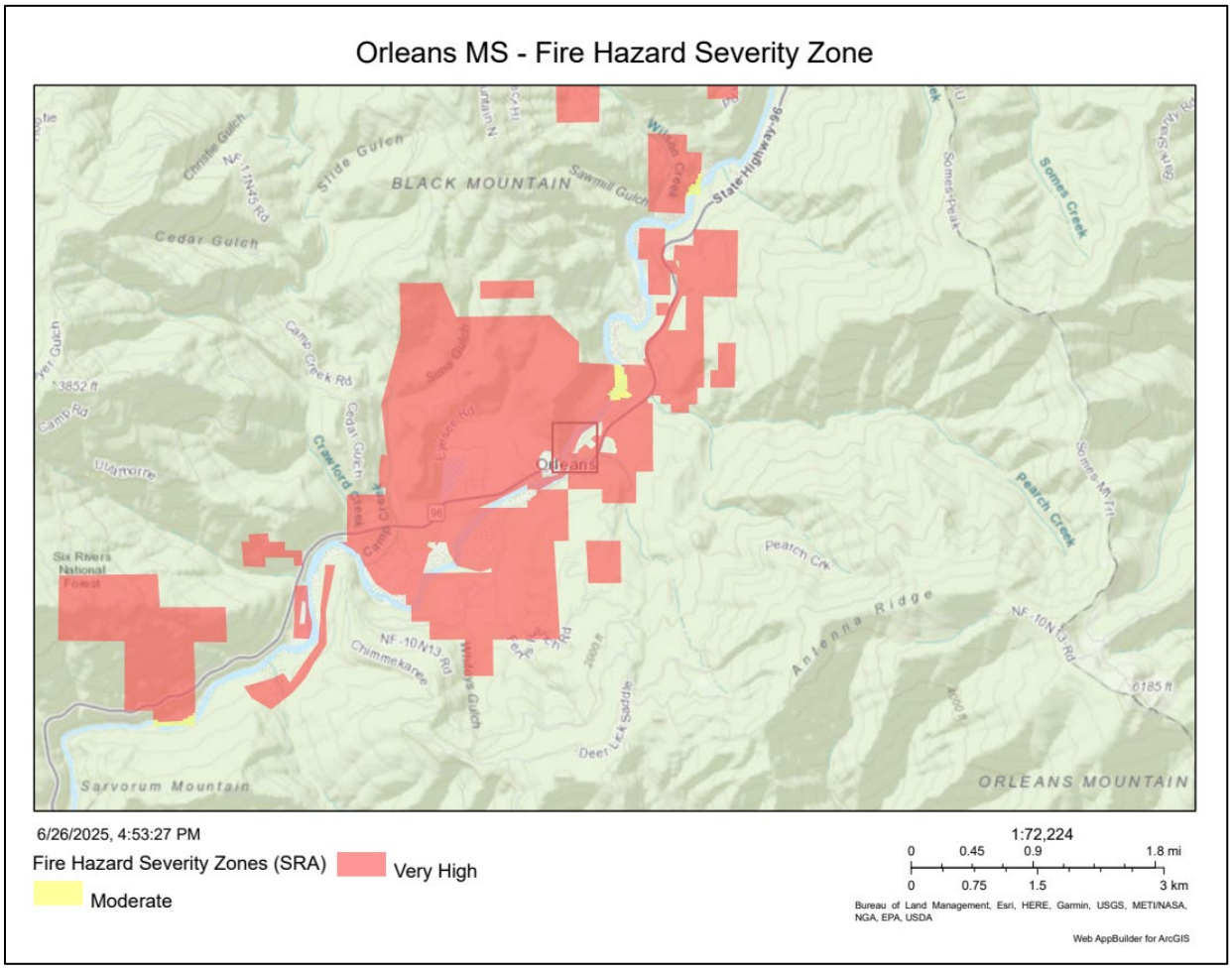


Figure 7. Orleans MS Fire Hazard Severity Zone Map

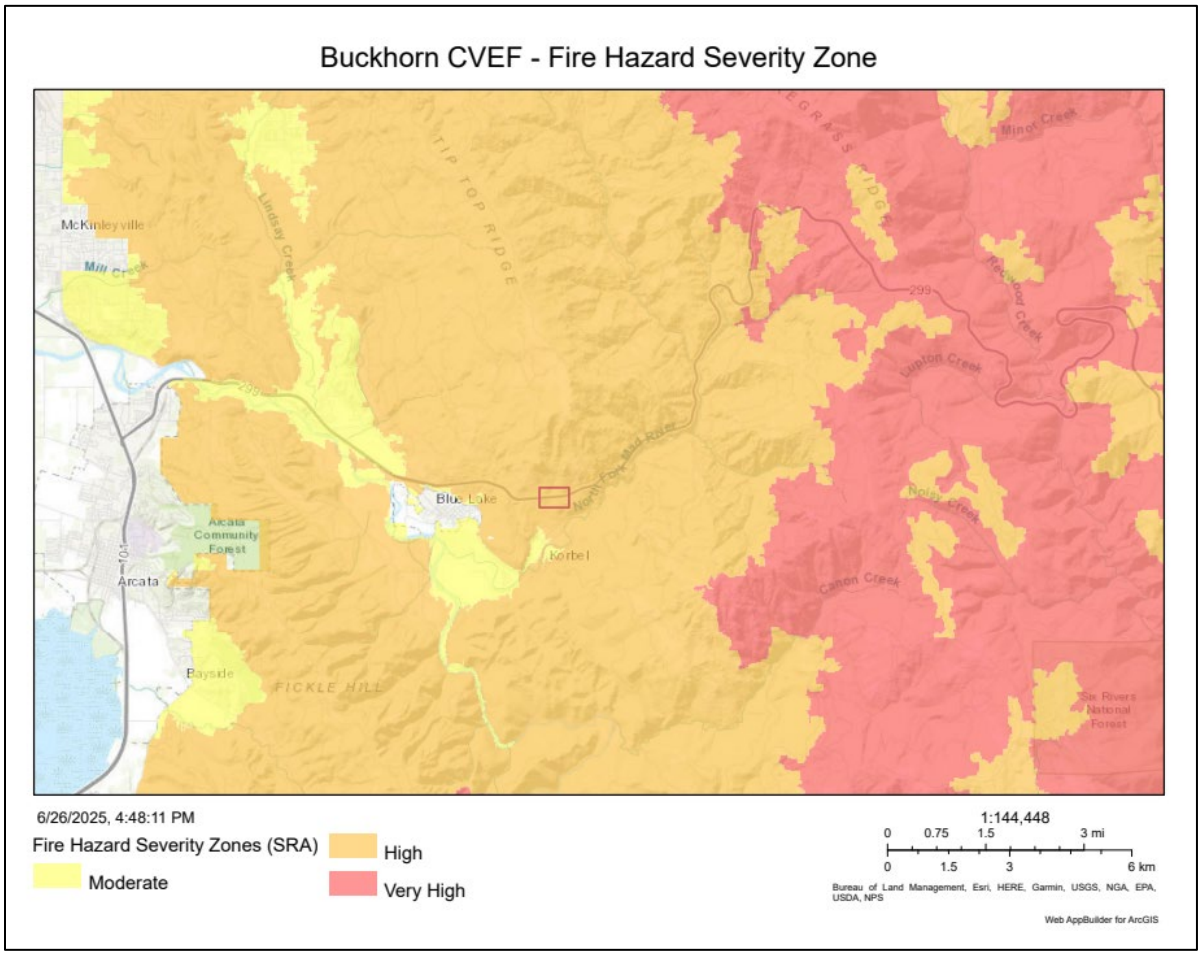


Figure 8. Buckhorn CVEF Fire Hazard Severity Zone Map

Statewide, climate change is anticipated to increase fire frequency and severity. The *Caltrans Climate Change Vulnerability Assessment–District 1 Technical Report* (Caltrans 2019) indicates that SR 96, adjacent to the Orleans MS, is currently considered a high risk for wildfire and would remain that way through 2085.

A more dramatic change is anticipated for the portion of highway where the Buckhorn CVEF is located. Here, SR 299 begins (in 2025) with moderate wildfire risk and increases to high wildfire risk in 2085.

While neither the Orleans MS nor the Buckhorn CVEF facility could easily incorporate defensible space into the facility improvement plans (new right of way would need to be acquired), the project would incorporate beneficial improvements.

At Orleans, the project would install a new 8-inch-diameter pipe/water line to serve the new crew/equipment building and the facility as a source of water for fire suppression. This would meet Fire Marshall standards and offer increased protection (compared to baseline) against potential fires, both originating at or traveling through the MS area. Additional improvements that would contribute to fire prevention include the undergrounding of the new three-phase electrical connection as well as utilization of metal siding and roofing for the new crew/equipment building.

At Buckhorn, the improved scale house would utilize metal siding and roofing to harden the facility against wildfire.

All Caltrans construction contracts include fire prevention specifications to avoid fire starts during construction. Standard fire prevention measures would be implemented during construction, including:

- The names and emergency telephone numbers of the nearest fire suppression agencies would be posted at a prominent place at the job site.
- A Fire Prevention Plan would be required from the contractor to identify measures taken to reduce the risk of fire.
- Fires occurring within and near the project limits would be immediately reported to the nearest fire suppression agency by using the emergency phone numbers retained at the job site and by dialing 911. Performance of the work would be in cooperation with fire prevention authorities.
- Fires caused directly or indirectly by job site activities would be extinguished and escape of fires would be prevented.
- Materials resulting from clearing and grubbing would be disposed of or managed to prevent accumulation of flammable material.
- All emergency response agencies in the project area would be notified of the project construction schedule and would have access to SR 96 and SR 299 throughout the construction period.

Temperature

The Caltrans *Climate Change Vulnerability Assessment–District 1 Technical Report* (Caltrans 2019) analyzed the effects of temperature on the choice of pavement binders; however, because the project would add limited new pavement in the immediate vicinity of the new structure foundations (conformance paving), pavement considerations would not be significant for this project in terms of climate change resiliency.

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?				✓
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?				✓
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?				✓
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?			✓	
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?				✓

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

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 Orleans MS is on the Hazardous Waste and Substances Site List (Cortese List) as a result of historical leaking underground storage tanks (LUSTs) (NCRWQB Case ID# 1THU524).

In June 1994, one 3,900-gallon diesel underground storage tank (UST) and two 1,000-gallon gasoline USTs were removed along with approximately 50 tons of petroleum hydrocarbon-impacted soil excavation and 125 tons from the diesel UST excavation. Caltrans worked with Humboldt County and the Regional Water Quality Control Board to clean up the site. In 2003, the County of Humboldt found that investigation and corrective actions at the Orleans MS meant that the MS was again in compliance with Health and Safety Codes; the Orleans MS Soil/Groundwater Management and Contingency Plan was received by the County and the case was closed (SWRCB 2025).

For the purposes of full disclosure, the Maintenance Station remains on the list of Hazardous Waste sites to inform the public that at one time there was a contamination issue at the site. When ground disturbance is planned at a Cortese site, regardless of the closure date or status, Caltrans evaluates the site for potential contamination.

An Initial Site Assessment (ISA) was completed in May 2025 (Caltrans 2025h). The ISA recognizes that the project, through the proposed excavation for power and water line trenching, leach field installation, investigatory drilling and excavation for new foundations, has the potential to disturb soils at the Orleans MS that had been previously contaminated with petroleum hydrocarbons associated with historical LUST sites.

In order to determine the presence/absence and potential scope of residual Petroleum Hydrocarbons and Title 22 metals in the soil and groundwater from the leaking tanks at the Orleans Maintenance Stations, a Detailed Site Investigation (DSI) will be conducted at the MS during the design phase. This investigation will assess for potential residual soil and/or groundwater contamination at the site. While neither hydrocarbons nor metals of concern at levels considered to be toxic are anticipated due to the duration of time since the original leak detection and based on recent site investigations (Geocon 2006, 2007), the results of the DSI

investigations will inform if contamination is present and provide information regarding the handling and disposal requirements of excavated materials.

Similarly, geotechnical borings at the Orleans MS may encounter residual soil and/or groundwater contamination associated with former leaking Underground Storage Tanks at the site. Excess spoils from the subsurface investigation (drill mud/fluid, soil cuttings) would be containerized and tested for any potential contaminates prior to disposal. Following geotechnical drilling, once soil cores are removed, the boreholes are filled with bentonite or other approved slurry and sealed, reducing the likelihood for potential migration of groundwater and any potential residual contaminates. (This information has been added since the draft environmental document).

The ISA also discussed the results of the Asbestos Containing Materials (ACM)/Lead Containing Paint (LCP) structure surveys at both the Orleans MS and the Buckhorn CVEF facility. The ACM/LCP surveys were completed in May 2025 to assess the presence and quantity of asbestos and deteriorated LCP in the existing crew/equipment building and in the scale house and scale.

The results of the ACM and LCP surveys are included in the ISA. The ACM/LCP Structure Survey Report summarizes the results of the planned DSI at the Orleans MS will be available during the design phase of the project. The DSI will inform the project team of soil management requirements as required by the California Health and Safety Codes.

Environmental Consequences

At the Orleans MS, the DSI would assess the proposed soil disturbance areas. This would inform the Project Development Team (PDT) if special handling, storage, and disposal for excavated soils would be required. Also at the Orleans MS, the presence of regulated ACM and LCP was detected in some of the structures that would be demolished.

At the Buckhorn CVEF, no concerns for residual Petroleum Hydrocarbons were identified and no regulated amounts of ACM and LCP were detected.

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

A "*No Impact*" determination was made for questions a), b), c), e), f), and g) listed within the CEQA Hazards and Hazardous Materials section. During project construction, transportation and use of common hazardous materials (such as fuels and lubricants) is anticipated. Construction of this project would not require transportation of hazardous materials in unusual quantities or with unusual risks compared to typical construction projects. Additionally, project operations would be similar to existing conditions and would not create or result in any new hazard. The project is not located within a quarter mile of a school or within 2 miles of a public airport. Caltrans Standard Measures and Best Management Practices for storage and handling of common construction site contaminants would be applied (Section 1.6 (HW-1 through HW-4)).

See below for further discussion of the "*Less Than Significant Impact*" determination made for question d).

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?

The Orleans MS is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. However, as described above, because the leaking tanks were identified and remediated over 30 years ago, and because more recent groundwater monitoring investigations have shown no elevated groundwater contamination at the site (suggesting that no contaminants are migrating through the soil) (Geocon Consultants Inc. 2006 and 2007), the work at the MS is not likely to encounter contamination related to listed hazardous materials. Were the project to encounter soil from excavation or borings with elevated hydrocarbons or other soil contaminants related to the LUST, the PSI will direct soil storage and disposal methods as required by the California Health and Safety Code. Therefore, activities associated with this project would not create a substantial health hazard to the public or the environment through inadvertent exposure or release of hazardous materials. As a result, the project is expected to have a "*Less than Significant Impact*" to any hazards and hazardous materials.

Avoidance, Minimization and Mitigation Measures

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

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?				✓
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?				✓
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;				✓
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;				✓
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or				✓
(iv) impede or redirect flood flows?				✓

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

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project. The project is not within a mapped floodplain of any river or stream and while several culverted waterways pass through the ESL, no wetlands or other jurisdictional waters would be filled, modified or otherwise affected by the proposed project work. The geotechnical drilling that is needed to design the foundations for the proposed structures at both locations would be backfilled with bentonite and sealed or per Humboldt County requirements to protect ground water and water quality (This information has been added since the draft environmental document). A water quality screening in May 2025 resulted in the determination of a *Water Quality Assessment Exemption* (Caltrans 2025i), where the risk to water quality being impacted was determined to be very low; the review found that the project would not alter existing natural drainages, create any new sources of pollutants, result in increased risk of pollutant release, or otherwise interfere with ground water supply, quality, or regulation.

The project plans to manage a small increase in onsite stormwater runoff (less than 500 sq ft of increased impervious surface area) by incorporating onsite stormwater runoff treatment in the form of a bioswale. The bioswale and implementation of Caltrans Standard Measures and Best Management Practices for water quality (Section 1.6 (WQ-1 and WQ-2)) would ensure the project would have "*No Impact*" on Hydrology and Water Quality.

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?				✓
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 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 because the project is an existing maintenance facilities improvement project that would bring outdated and noncompliant facilities up to current standards. No changes to land use are proposed.

During construction or operations, the project would not divide a community, nor would the proposed MS improvements conflict with any policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect. The project would have "*No Impac*t" on Land Use and Planning.

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?				✓
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 Impact" determinations in this section are based on the scope, description, and location of the proposed project. Potential impacts to Mineral Resources are not anticipated because the project is a maintenance facilities improvement project that would bring existing substandard facility elements up to current standards.

According to the California Geologic Survey (CGS) and California Department of Conservation (DOC), there are no designated mineral resource areas of state or regional importance in the project area (California DOC 2022). There is at least one active rock quarry near both the Orleans MS and the Buckhorn CVEF (DOC 2025a). Upon completion, the project would be operationally similar to existing conditions and would not add new impediments to future resource extraction. Therefore, the project would have "*No Impact*" on Mineral Resources.

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?				✓
Would the project result in: b) Generation of excessive groundborne vibration or groundborne noise levels?				✓
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 Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the *Noise Analysis for The Orleans MS and Buckhorn CVEF Project* dated May 2025 (Caltrans 2025j). Potential impacts to Noise from the project would be limited to temporary ambient noise increases during construction. The proposed project would not construct a new highway or expand an existing highway, nor would it substantially change the vertical or horizontal alignments.

There is a private airstrip located within two miles of the Orleans MS that appears to be used infrequently or unused; therefore, temporary noise from construction would not result in combined noise levels that would expose people residing or working in the project area to excessive noise levels.

Traffic volumes, composition and speeds would remain the same. Therefore, permanent noise impacts are not anticipated; operational noise from the replacement and upgrades to existing facility components and the addition of new EV charging stations would be effectively equal to baseline conditions. The project would have "*No Impact"* on Noise.

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)?				✓
Would the project: b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				✓

No Impact" determinations in this section are based on the scope, description, and location of the proposed project. This project is a maintenance facilities improvement project that would bring existing substandard facility elements up to current standards and replace existing facilities. Potential impacts to Population and Housing are not anticipated as the project does not involve activities that would directly or indirectly affect population growth or housing; therefore, no unplanned growth, nor any displacement of people or housing would occur. The project would have "*No Impac*t" on Population and Housing.

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?				✓
Police protection?				✓
Schools?				✓
Parks?				✓
Other public facilities?				✓

No Impact" determinations in this section are based on the scope, description, and location of the proposed project. Potential impacts to Public Services are not anticipated because this project is a maintenance facilities improvement project that would bring existing substandard facility elements up to current standards; it would not be capacity increasing, nor would project construction result in a direct increase in facility employee numbers that could result in increased pressure on public facilities. During construction, no change in access to public roadways would occur, resulting in no additional delays to service response times or other impacts to public service performance objectives. Construction of the proposed project would be temporary and coordinated with facility managers and emergency service agencies. The project would have *"No Impact"* on Public Services.

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?				✓
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 Impact" determinations in this section are based on the scope, description, and location of the proposed project. Potential impacts to Recreation are not anticipated because the proposed project is a maintenance facilities improvement project that would bring existing substandard Caltrans facility elements up to current standards; the project would not be capacity-increasing, nor would it affect population growth, which may require the construction or expansion of recreational facilities that might increase the use of existing recreational facilities. The project would not require the expansion of recreational facilities that could have an adverse physical effect on the environment. The project would have "*No Impact*" on Recreation.

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?				✓
Would the project: b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?				✓
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)?				✓
Would the project: d) Result in inadequate emergency access?				✓

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project.

The proposed project would utilize existing roads to access the Caltrans facilities. No roads or other transportation features would be constructed; therefore, the proposed project would not conflict with local plans and ordinances for ensuring a safe and effective transportation system. With only temporary delays on SR 96 and no delays or construction presence on SR 299, the project would not result in conflicts with bicycle and pedestrian facilities.

Potential impacts to Transportation are not anticipated due to the temporary and low volume of construction-related traffic. The project is not capacity increasing and would result in an operational condition that is similar to the existing condition; no operational increase to vehicle miles traveled would occur.

While temporary (less than 10 days) one way traffic control would be required on SR 96 and W. Pearch Creek Road during the proposed water line work, no significant lane closures or delays on public highways would occur as a result of project construction. Caltrans facility access roads would remain open to emergency vehicles at all times.

The project would have "*No Impact*" on Transportation.

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				✓
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 Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the *Archaeological Survey Report* (Caltrans 2025d), the *Extended Phase One Report* (Caltrans 2025e), and the *Historical Resources Evaluation Report (Caltrans 2025f)*.

Potential impacts to tribal cultural resources are not anticipated because work would be limited primarily to the developed boundaries of the existing Caltrans facilities. At the Orleans location where work would occur outside of the facilities, such as the proposed installation of the new water line or the work required for electrical delivery, the open trenching and/or directional drilling would generally occur within the roadway prism (fill and base material under roadway and road shoulders).

Consultation with the Karuk Tribe was initiated in 2024 and is ongoing. At the request of the Tribe, the project would incorporate the use of an archaeological monitor and a tribal cultural monitor during ground disturbance activities; Caltrans Standard Measures and Best Management Practices for inadvertent discovery procedures would also be observed (Section 1.6 (CR-1 through CR-4)). No additional avoidance or minimization measures were requested by the tribe.

Due to the disturbed nature of most potential work locations, including the road and Caltrans' facilities, and with the implementation of Caltrans Standard Measures and Best Management Practices, the project would have "*No Impact*" on Tribal Cultural Resources under CEQA.

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?			✓	
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?				✓
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?				✓
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?				✓
Would the project: e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?				✓

Regulatory Setting

The primary law governing utilities and service systems is CEQA.

Affected Environment

The Orleans MS would require utility work as a component of the facility upgrade. Within the MS, new EV chargers would be installed and a new building constructed that would require reorganizing of existing systems, improved stormwater drainage and installation of a new septic leach field. Outside of the MS boundary, a new water line and power delivery elements would be installed and connected to the facility

At the Buckhorn CVEF, there would only be incidental utility work to rewire the new scale house and scale as needed. This work would be limited to the existing developed areas of the CVEF.

Environmental Consequences

As discussed in the Biological Resources, Cultural Resources, and Hazards and Hazardous Materials sections and throughout this document, trenching within the Orleans MS would avoid substantial impacts to these resources by virtue of the project design and anticipated construction methods and the implementation of Caltrans' Standard Measures and Best Management Practices (Section 1.6).

Minor utility work at the Buckhorn CVEF would be limited in scope and area and would have no risk of substantial environmental consequences.

Discussion of CEQA Environmental Checklist Question 2.19—Utilities and Service Systems

A "*No Impact*" determination was made for Questions b), c), d), and e) listed within the CEQA Utilities and Service Systems section. "No Impact" determinations in this section are based on the scope, description, and location of the proposed project.

The project would not result in new demand from a wastewater treatment provider; does not propose new or expanded natural gas or electric telecommunications systems; and would not generate excess solid waste or conflict with solid waste regulations.

See below for further discussion of the “Less Than Significant Impact” determination made for question a).

a) ***Would the project 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?***

The potential environmental impacts of the new fire suppression water line, new wastewater treatment leach field, stormwater drainage (bioswale), and upgraded electrical (three-phase power) are evaluated throughout this document. In all cases, the CEQA determination does not exceed ‘less than significant’. Therefore, the most conservative determination is that the construction or relocation of the project’s new utility features would have a “*Less Than Significant”* impact on the environment.

Avoidance, Minimization and Mitigation Measures

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

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?				✓
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				✓
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or may result in temporary or ongoing impacts to the environment?				✓
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				✓

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 (FHSZs). The 2018 updates to the CEQA Guidelines expanded this to include projects "near" these *Very High* Fire Hazard Severity Zones.

According to the Fire Hazard Severity Zone maps for SRAs, adopted by CAL FIRE in November 2007, the lands immediately surrounding the Orleans MS that are within the SRA (Figure 7 below) are classified as a *Very High* Fire Hazard Severity Zone (CAL FIRE 2023). The Orleans MS itself is located on federal property (SRNF) and is therefore located in a Federal Responsibility Zone (FRZ). The Blue Lake CVEF is within the Caltrans ROW and is located within a SRA; the CVEF is located within an area designated as a *Moderate* Fire Hazard Severity Zone (CAL FIRE 2023).

Because the project is a maintenance facilities improvement project, where the construction work, resulting facilities, and operational procedures would not substantially change from existing conditions, there would be no changes to the exposure people or buildings would experience from flooding, landslides, or an increased potential for pollutant concentrations from wildfire. The proposed work would not impair an adopted emergency response plan or emergency evacuation plan 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 SR 96 and SR 299 at all times during the construction period. If a wildland fire affected the area, work would stop, and evacuation routes would be accessible.

In Orleans, the project would add three-phase power, which would add an increase in voltage, but would not contribute a corresponding increase in fire risk. A common overhead delivery option throughout the state, a three-phase power line is not inherently dangerous, with most fires caused by faulty equipment (old equipment), poor design (overload) or a failure by the utility company to reduce environmental risks (tree or branches falling onto lines) (Western Fire Chiefs Association 2024). With the underground installation approach, the project approach maximizes fire prevention and does not exacerbate fire risk.

Based on the above, the project would have "*No Impact*" on Wildfire.

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?				✓
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.)			✓	
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?				✓

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?

The analysis throughout this document shows that the proposed project would have minor impacts to several resource areas, including Biological Resources, Greenhouse Gas Emissions, Hazards and Hazardous Materials, and Utilities, and would have no impact on Aesthetics, Agriculture and Forest Resources, Air Quality, Energy, Geology and Soils, Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Transportation, Tribal Cultural Resources, and Wildfire. The project does not 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. Therefore, the determination is "*No 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.)

The project may affect similar resources as other past, present, and/or probable future projects including greenhouse gases and special status species. However, the proposed project includes Standard Measures and Best Management Practices that avoid and minimize such impacts (Section 1.6). Similarly, the project would comply with all applicable regulatory permits and applicable state and federal laws. The project's incremental contribution is not cumulatively considerable and is considered a "*Less than Significant Impact*."

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

As discussed in the Initial Study, resource areas of Hazards and Hazardous Materials, Greenhouse Gas Emissions, and Utilities and Service Systems have been determined to be Less than Significant. The project would not cause substantial adverse effects on human beings. The project would have "*No Impact*."

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." This project proposes to upgrade existing Caltrans facilities. An EIR is required in all situations when a project might result in a "significant" direct, indirect, or cumulative impact on any resource. As there would not be "significant" direct, indirect, or cumulative impacts on any resource as a result of this project, an EIR and CIA were not required.

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. Tribal, agency consultation, and public participation for this project have been accomplished through a variety of informal methods, inter-government coordination, and are ongoing. This chapter summarizes the results of Caltrans' efforts to identify, address, and resolve project-related issues through early and continuing coordination.

The Initial Study with Proposed Negative Declaration was made available for public and agency review between August 1, 2025, and September 3, 2025. Caltrans has ensured the document was made available to all appropriate parties and agencies, including 1) Responsible agencies, 2) other federal, state, and local agencies which have regulatory jurisdiction, or that exercise authority over resources which may be affected by the project, and 3) the general public.

Copies of the document are available at the Caltrans District 1 office located at 1656 Union Street, Eureka and upon request. This document may be downloaded at the following website address:

https://dot.ca.gov/caltrans-near-me/district-3/d3-programs/d3-environmental/d3-environmental-docs/d3-humboldt-county

Tribal Cultural Resource Coordination

The Archaeological Survey Report, dated June 2025, documents consultation conducted with the Karuk Tribe during 2025 (Caltrans 2025d). Requests for monitoring were expressed by the Karuk Tribe and have been incorporated into the project requirements. Coordination with the Karuk Tribe is ongoing.

Coordination with Resource and Permitting Agencies

Consultations with USFWS regarding use of the Programmatic Letter of Concurrence (PLOC) to avoid impacts to federally listed species has been completed; consultation with County of Humboldt, and CAL FIRE personnel are ongoing.

Chapter 4. List of Preparers

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

California Department of Transportation, District 1

Liza Walker	Office Chief–North Region Environmental
Dominic Vitali	Environmental Branch Chief
Kristina Crawford	Senior Environmental Scientist/Archaeology
Breeanna Kalson	Environmental Coordinator
Karen Radford	Technical Editor
Paul Sundberg	Engineering Geologist–Hazardous Waste/Paleontology
Caitlin Bishop	Associate Environmental Planner/Archaeology
Katie Thoreson	Environmental Scientist–Biologist (NES)
Aaron Bali	Transportation Engineer
Nick Burke	Environmental Engineering (Landscape Architecture)
Andrew Rodgers	Associate Environmental Planner (Hydrology)

Chapter 5. Distribution List

Karuk Tribe
Attn: Alex Tobin, THPO
64236 Second Avenue
PO Box 1016
Happy Camp, CA 96039

USFWS – Arcata Office
Attn: Matt Parker
1655 Heindon Rd
Arcata, CA 95521

Orleans Community Services District
37737 CA-96
Orleans, CA 95556

County of Humboldt
1106 Second St.
Eureka, CA 95501

Pacific Gas and Electric
Attn: Alex Mossman
300 Lakeside Drive
Oakland, CA 94612

Chapter 6. References

California Air Resources Board (CARB). 2008. *Climate Change Scoping Plan Appendices. Volume II: Analysis and Documentation.* Appendix I, p. I-19. December. https://ww3.arb.ca.gov/cc/scopingplan/document/scopingplandocument.htm. Accessed: June 14, 2024.

_____. 2021. *SB 375 Regional Plan Climate Targets*. https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets. Accessed: June 14, 2024._____. 2022a. *2022 Scoping Plan for Achieving Carbon Neutrality*. Executive Summary. https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents. Accessed: November 13, 2023.

_____. 2022b. *Climate Change*. https://ww2.arb.ca.gov/our-work/topics/climate-change. Accessed: June 14, 2024.

_____. 2023. *California Greenhouse Gas Emissions Inventory Data–2023 Edition, 2000-2021*. https://ww2.arb.ca.gov/ghg-inventory-data. Accessed: June 14, 2024.

California Department of Conservation (DOC). 2022. *Publications of the SMARA Mineral Land Classification Project Dealing with Mineral Resources in California.* https://www.conservation.ca.gov/cgs/Documents/Publications/SMARA-Publications-California-a11y.pdf. Accessed: June 2025.

_____. 2025a. Fault Activity Map of California. https://maps.conservation.ca.gov/cgs/fam/. Accessed: June 2025.

_____. 2025b. Mines Online. https://maps.conservation.ca.gov/mol/index.html. Accessed: June 2025.

California Department of Fish and Wildlife (CDFW). 2009. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities. http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/Protocols_for_Surveying_and_Evaluating_Impacts.pdf.

_____. 2010. California Department of Fish and Game Natural Communities List. https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities. Accessed: April 2019

_____. 2016. *Status Review of Northern Spotted Owl.* https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=116307.

_____. 2018. *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities.*

_____. 2022. *California Department of Fish and Wildlife Aquatic Invasive Species Decontamination Protocol*. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=43333&inline. October 2022.

_____. 2025a California Natural Diversity Database (CNDDB). BIOS Viewer. http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp Accessed: June 2025.

_____. 2025b. *Special Animals List.* https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406&inline. Accessed: September 2021

California Department of Forestry and Fire Protection (CAL FIRE). 2023. Fire Hazard Severity Zone Viewer. https://calfire-forestry.maps.arcgis.com/apps/webappviewer/index.html?id=988d431a42b242b29d89597ab693d008. Accessed: June 2025.

California Department of Transportation (Caltrans). 2016. *Statewide Stormwater Management Plan*. https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/caltrans/swmp/swmp_approved.pdf. Accessed: June 2025.

_____. 2018. California State Scenic Highway System Map. https://www.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa. Accessed: June 2025.

_____. 2019. *Caltrans Climate Change Vulnerability Assessments*. District 1 Technical Report. December. Prepared by WSP. https://dot.ca.gov/-/media/dot-media/district-1/documents/d1-technical-report-a11y.pdf.Accessed: May 2025.

_____. 2020. *Caltrans Greenhouse Gas Emissions and Mitigation Report*. Final. August. Prepared by ICF, Sacramento, CA. https://dot.ca.gov/programs/public-affairs/mile-marker/summer-2021/ghg. Accessed: November 13, 2023.

_____. 2021a. *California Transportation Plan* 2050. February. https://dot.ca.gov/programs/transportation-planning/division-of-transportation-planning/state-planning-equity-and-engagement/california-transportation-plan. Accessed: November 13, 2023.

_____. 2021b. *Caltrans 2020-2024 Strategic Plan.* https://storymaps.arcgis.com/stories/f190b9755a184b268719dac9a11153f7. Accessed: November 13, 20233.

_____. 2023. *Sustainable Operations at Caltrans–Sustainability Roadmap.* https://dot.ca.gov/programs/esta/sustainable-caltrans. Accessed: November 13, 2023.

_____. 2025a. *Visual Impact Assessment*. May 1, 2025

_____. 2025b. *Air Quality, Greenhouse Gas, and Energy Analysis for the Orleans MS and Buckhorn CVEF Project*. May 13, 2025.

_____. 2025c. *Natural Environment Study/Minimal Impacts*. September 2025

_____. 2025d. *Archaeological Survey Report.* June 2025

_____. 2025e. *Extended Phase One Report*. June 2025

_____. 2025f. *Historical Resources Evaluation Report*. June 2025

_____. 2025g. *Paleontological Identification Report*. May 2025

_____. 2025h. *Initial Site Assessment*. May 20, 2025.

_____. 2025i. *Water Quality Assessment Exemption.* May 14, 2025.

_____. 2025j. *Noise Analysis for The Orleans MS and Buckhorn CVEF Project*. May 13, 2025.

California Environmental Protection Agency. 2015. *California Climate Strategy–An Integrated Plan for Addressing Climate Change.*

California Governor's Office of Planning and Research (OPR). 2015. *A Strategy for California @ 50 Million*. November. https://opr.ca.gov/planning/environmental-goals/. Accessed: June 14, 2024.

California Natural Resources Agency. 2022. *Nature-Based Climate Solutions: Natural and Working Lands Climate Smart Strategy.* https://resources.ca.gov/Initiatives/Expanding-Nature-Based-Solutions. Accessed: June 14, 2024.

_____. 2023. *California Climate Adaptation Strategy.* https://resources.ca.gov/Initiatives/Building-Climate-Resilience/2021-State-Adaptation-Strategy-Update. Accessed: June 14, 2024.

California Department of Water Resources (DWR). 2025. Best Available Map. https://gis.bam.water.ca.gov/bam/. Accessed June 2025.

California Ocean Protection Council. 2022. *State Agency Sea-Level Rise Action Plan for California.* February. https://www.opc.ca.gov/climate-change/sea-level-rise-2/. Accessed: June 14, 2024.

California State Transportation Agency. 2021. *Climate Action Plan for Transportation Infrastructure (CAPTI).* https://calsta.ca.gov/subject-areas/climate-action-plan. Accessed: June 14, 2024.

Climate-Safe Infrastructure Working Group. 2018. *Paying it Forward: The Path Toward Climate-Safe Infrastructure in California*. September. https://resources.ca.gov/CNRALegacyFiles/docs/climate/ab2800/AB2800_Climate-SafeInfrastructure_FinalNoAppendices.pdf. Accessed: June 14, 2024.

County of Humboldt. 2003a. *Orleans-Somes Bar Community Action Plan.* https://humboldtgov.org/DocumentCenter/View/295/2003-Orleans--Somes-Bar-Community-Action-Plan-PDF. Accessed: June 2025.

_____. 2023b. *General Plan*. https://humboldtgov.org/205/General-Plan. Accessed: June 2025.

_____. 2025. Web GIS Viewer: Hazards/Coastal and Dam Inundation layer. https://cty-gis-web.co.humboldt.ca.us/HCEGIS3.0/. Accessed: May 2025.

Federal Highway Administration [FHWA]. 2017. 9.0 *Construction Equipment Noise Levels and Ranges Handbook*. URL: https://www.fhwa.dot.gov/Environment/noise/construction_noise/handbook/handbook09.cfm

_____. 2022. *Sustainability*. https://www.fhwa.dot.gov/environment/sustainability/resilience/. Accessed: November 13, 2023.

_____. No date. *Sustainable Highways Initiative*. https://www.fhwa.dot.gov/environment/sustainability/initiative/. Accessed: November 13, 2023.

Federal Emergency Management Agency (FEMA). 2025. National Flood Hazard Layer Viewer. https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html. Accessed: May 2025.

Folliard, L. B., K. P. Reese, and L. V. Diller. 2000. *Landscape Characteristics of Northern Spotted Owl Nest Sites in Managed Forests of Northwestern California*. J. Raptor Research 34(2): 75-84.

Geocon Consultants Inc. 2006. *Site Investigation and Well Installation Report- Orleans Maintenance Station Orleans, Humboldt County, California* (PROJECT NO. S8875-06-90).

_____. 2007. *Groundwater Monitoring Report, Second Quarter – Orleans Maintenance Station, Humboldt County California* (PROJECT NO. S8875-06-110).

Humboldt County Association of Governments (HCAOG). 2022. *Regional Transportation Plan: Variety in Rural Options of Mobility (VROOM) 2022-2042*. https://www.hcaog.net/sites/default/files/vroom_2022-2042_full_report_0.pdf. Accessed: May 2025.

International Union for Conservation of Nature [IUCN]. 2016. *The IUCN Red List of Threatened Species*. http://www.iucnredlist.org/.

Karuk Tribe. 2018. Orleans Community Center Connectivity Project. Orleans Community Connectivity Project Final Report.pdf. Accessed: June 2025.

National Oceanic and Atmospheric Administration (NOAA). 2022. *2022 Sea Level Rise Technical Report.* https://oceanservice.noaa.gov/hazards/sealevelrise/sealevelrise-tech-report.html. Accessed: November 13, 2023.

Orleans/Somes Bar Fire Safe Council. 2012. Orleans/Somes Bar Community Wildfire Protection Plan. https://humboldtgov.org/DocumentCenter/View/82278/OSB_CWPP_FINAL_withSignatures. Accessed: June 2025.

Sawyer, J. O., T. Keeler-Wolf, and J. Evens. 2009. A Manual of California Vegetation. 2nd edition. Sacramento, CA: California Native Plant Society.

Spencer, W.D., P. Beier, K. Penrod, K. Winters, C. Paulman, H. RustigianRomsos, J. Strittholt, M. Parisi, and A. Pettler. 2010. California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California. Prepared for California Department of Transportation, California Department of Fish and Game, and Federal Highways Administration.

State of California. 2018. *California's Fourth Climate Change Assessment.* http://www.climateassessment.ca.gov/. Accessed: November 13, 2023.

State Water Resources Control Board (SWRCB). 2025. Geotracker. https://geotracker.waterboards.ca.gov/profile_report?global_id=SL06023101 79. Accessed June 2025.

Stebbins, Robert C., and McGinnis, Samuel M. 2012. Field Guide to Amphibians and Reptiles of California: Revised Edition (California Natural History Guides). University of California Press, Berkeley.

U.S. Department of Transportation (USDOT). 2014. *Corporate Average Fuel Economy (CAFE) Standards*. https://www.transportation.gov/mission/sustainability/corporate-average-fuel-economy-cafe-standards. Accessed: November 13, 2023.

_____. 2023. *Climate Action*. January. https://www.transportation.gov/priorities/climate-and-sustainability/climate-action. Accessed: November 13, 2023.

U.S. Environmental Protection Agency (U.S. EPA). 2021. *Final Rule to Revise Existing National GHG Emissions Standards for Passenger Cars and Light Trucks Through Model Year 2026*. December. https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-revise-existing-national-ghg-emissions. Accessed: November 13, 2023.

_____. 2024a. *Data Highlights*. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2021. https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks. Accessed: November 13, 2023.

_____. 2024b. *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2021*. https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks. Accessed: November 13, 2023.

U. S. Fish and Wildlife Service [USFWS]. 2011. Revised Recovery Plan for the Northern Spotted Owl (Strix occidentalis caurina). URL: http://ecos.fws.gov/docs/recovery_plan/RevisedNSORecPlan2011_1.pdf.

_____. 2016. Final Species Report: Fisher (Pekania pennanti), West Coast Population. U.S. Fish and Wildlife Service. March 2016.

_____. 2018. Species status assessment report for the coastal marten (Martes caurina), Version 2.0. July 2018. Arcata, CA.

_____. 2020. *Revised Transmittal on Guidance–Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owl and Marbled Murrelets in Northwestern California*. Technical Guidance prepared by USFWS for the California Department of Transportation.

_____. 2022. Programmatic Letter of Concurrence [PLOC] for the California Department of Transportation's Routine Maintenance and Repair Activities, and Small Projects Program for Districts 1 and 2. Arcata Fish and Wildlife Office. AFWO-2022-0062929.

_____. 2024. USFWS Regions 1 and 8 Northwestern Pond Turtle Avoidance and minimization Measures Draft Version 1

_____. 2025. Information for Planning and Consultation (IPaC). URL https://ecos.fws.gov/ipac/ . Accessed July 2025.

U.S. Global Change Research Program. 2023. *Fifth National Climate Assessment.* https://nca2023.globalchange.gov/chapter/front-matter/. Accessed: November 21, 2023.

Thomson, R.C., Wright, A.N., Shaffer, H.B. 2016. California Amphibian and Reptile Species of Special Concern. University of California Press, Berkeley.

Western Association of Fish and Wildlife Agencies (WAFWA). 2019. Western monarch butterfly conservation plan, 2019–2069. Version 1.0.

Western Bat Working Group (WBWG). (2021). Townsend's big-eared bat and pallid bat species accounts. Accessed August 2021 at http://wbwg.org/western-bat-species/.

Western Fire Chiefs Association. 2024. *The Link Between Power Lines and Wildfires*. https://wfca.com/wildfire-articles/power-lines-and-wildfires/. Accessed: June 2025.

Appendix A. ESL Maps / Project Layouts


LEGEND
ESL (PROPOSED)
R/W
PROPOSED CONSTRUCTION
PROPOSED STAGING AREA
FENCE
APN BOUNDARY
PROPOSED 4" UNDERGROUND CONDUIT
NOTE
1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE
2. TRENCH DEPTH FOR WATERLINE (WL) ON W PERCH CR RD: 4.2'
3. ELECTRICAL TRENCH DIMENSIONS DEPTH: 4' WIDTH: 1'
ESL 10' OUTSIDE EP
NEW ABOVE GROUND UTILITY BOX
ESL EXTENDS 10' BEHIND CULVERT
ESL EXTENDS 30' IN ALL DIRECTIONS FROM UT POLE
ESL 15' OUTSIDE EP
ESL 10' OUTSIDE FENCE
REMOVE AND REPLACE EXIST FIRST GATE
NEW LEACH FIELD (UNDER 1)
EXIST LEACH FIELD (UNDER 2)
ESL 10' OUTSIDE FENCE
UT POLE 1
UT POLE 2
UT POLE 3
UT POLE 4
UT POLE 5
UT POLE 6
NEW UT POLE INSTALLED BY PGE
NEW 4" WL
REMOVE AND REPLACE EXIST PERIMETER FENCE
REMOVE & REPLACE EXIST CREW/EQUIPMENT BUILDING
HYDRANT
ESL EXTENDS 30' IN ALL DIRECTIONS FROM HYDRANT
SR 96
Underwood Creek
KARUK TRIBAL OFFICE
529-211-011
529-211-009
529-201-021
529-211-012
529-211-013
529-201-024
529-201-008
529-201-031
529-201-027
529-201-022
529-201-025
529-201-007
529-212-001
529-212-002
ORLEANS MAINTENANCE STATION
SCALE: 1" = 75'
ESL L-2
PRELIMINARY DESIGN FOR REVIEW ONLY
DIst
01
COUNTY
HUM
ROUTE
96, 299
POST MILES TOTAL PROJECT
Var
SHEET No.
TOTAL SHEETS
REGISTERED CIVIL ENGINEER
DATE
First Name
Last Name
No. XXXXX
Exp. ##-##-##
CIVIL
STATE OF CALIFORNIA
PLANS APPROVAL DATE
THE STATE OF CALIFORNIA AND ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED DOCUMENTS THIS SHEET.
STATE OF CALIFORNIA – DEPARTMENT OF TRANSPORTATION
DESIGN
FUNCTIONAL SUPERVISOR
ANDRE GUIMARAES
CALCULATED-DESIGNED BY
CHECKED BY
PHIL TRAN
BRIAN HODGSON
REVISED BY
DATE REVISED
DATE PLOTTED –> %DATE
TIME PLOTTED –> %TIME
LAST REVISION
BORDER LAST REVISED 8/5/2020
USERNAME –> %USER
DGN FILE –> %REQUEST
RELATIVE BORDER SCALE IS IN INCHES
0 1 2 3
UNIT 0313
PROJECT NUMBER & PHASE
0122000450

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO. TOTAL SHEETS
01	Hum	96	R38.9/R39.1	XX

REGISTERED CIVIL ENGINEER — DATE

PLANS APPROVAL DATE

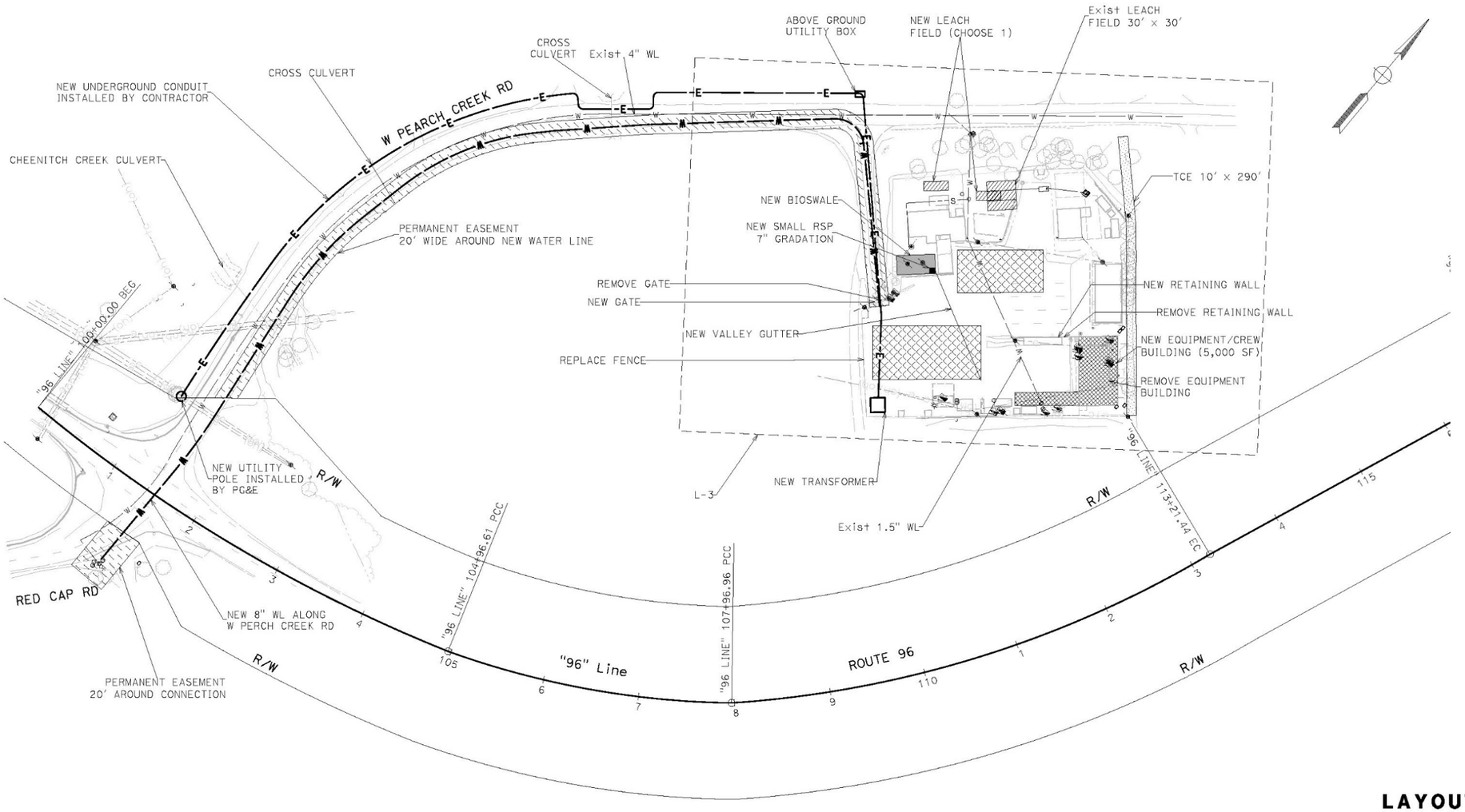
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER — No. — Exp. — CIVIL — STATE OF CALIFORNIA

PRELIMINARY DESIGN FOR REVIEW ONLY

NOTE:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



LAYOUT

SCALE: 1"=50'

L-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CALCULATED-DESIGNED BY	PHIL TRAN	REVISED BY	
Caltrans	CHECKED BY	BRIAN HODGSON	DATE REVISED	
DESIGN	FUNCTIONAL SUPERVISOR	ANDRE GUIMARAES		

DATE PLOTTED => @DATE
TIME PLOTTED => @TIME
LAST REVISION

BORDER LAST REVISED 8/5/2020	USERNAME => @USER DGN FILE => @REQUEST	RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3	UNIT 0313	PROJECT NUMBER & PHASE	01220000450

Dist	COUNTY	ROUTE	POST MILES	SHEET TOTAL
			TOTAL PROJECT	NO. SHEETS
01	Hum	96	R38.9/R[illegible]	XX

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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

PRELIMINARY DESIGN FOR REVIEW ONLY

CALIFORNIA REGISTERED CIVIL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

NOTE:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Exist 4" WL

W PEARCH CREEK RD

PERMANENT EASEMENT
20' WIDE AROUND NEW WATER LINE

POTENTIAL NEW LEACH FIELD (CHOOSE 1)

Exist SEPTIC TANK

TCE 10' x 290'

Exist LEACH FIELD 30' X 30'

4" LEACH LINE

NEW 8" WL ALONG W PEARCH CREEK RD

NEW BIOSWALE

NEW SMALL RSP 7" GRADATION

REMOVE GATE

NEW GATE

NEW VALLEY GUTTER

EXIST 1.5" WL

ACCESS TO MATERIAL STORAGE AREA WILL BE AVAILABLE DURING CONSTRUCTION

REMOVE RETAINING WALL

NEW RETAINING WALL

REPLACE FENCE

NEW EQUIPMENT/CREW BUILDING (5,000 SF)

NEW UNDERGROUND CONDUIT INSTALLED BY CONTRACTOR

REMOVE EQUIPMENT BUILDING

NEW TRANSFORMER

LAYOUT

SCALE: 1"=20'

L-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
Caltrans

PHIL TRAN
BRIAN HODGSON
FUNCTIONAL SUPERVISOR: ANDRE GUIMARAES

DATE PLOTTED => DATE
TIME PLOTTED => TIME

USERNAME => USER
DGN FILE => ORIGLOC5T

RELATIVE BORDER SCALE IS IN INCHES

UNIT 0313 | PROJECT NUMBER & PHASE 01220000450

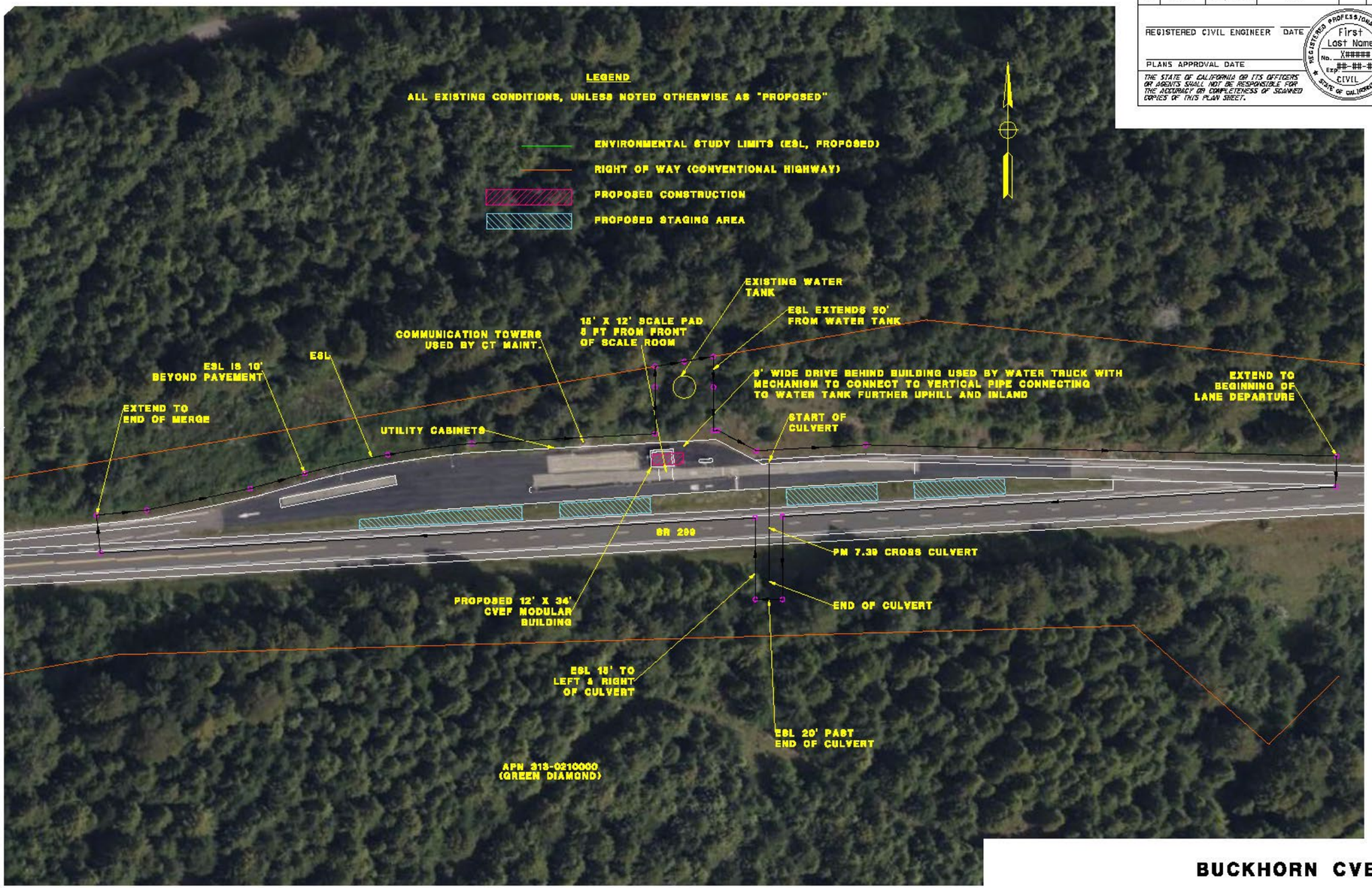
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	HUM	96, 299	Var		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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

REGISTERED PROFESSIONAL ENGINEER
First
Last Name
No. X#####
Exp ##-##-##
CIVIL
STATE OF CALIFORNIA



BUCKHORN CVEF

LAYOUT L-1

SCALE: 1" = 50'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	PHIL TRAN	REVISED BY	CALCULATED-DESIGNED BY
DESIGN	ANDRE GUIMARAES	BRIAN HODGSON	DATE REVISED	CHECKED BY

BORDER LAST REVISED 8/5/2020 | USERNAME => &USER | DGN FILE => &REQUEST | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0313 | PROJECT NUMBER & PHASE 01220000450

LAST REVISION | DATE PLOTTED => &DATE | TIME PLOTTED => &TIME

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO. TOTAL SHEETS
01	Hum	299	7.4/7	XX

REGISTERED CIVIL ENGINEER — DATE

PLANS APPROVAL DATE

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

REGISTERED PROFESSIONAL ENGINEER — No. — Exp. — CIVIL — STATE OF CALIFORNIA

PRELIMINARY DESIGN FOR REVIEW ONLY

NOTE:

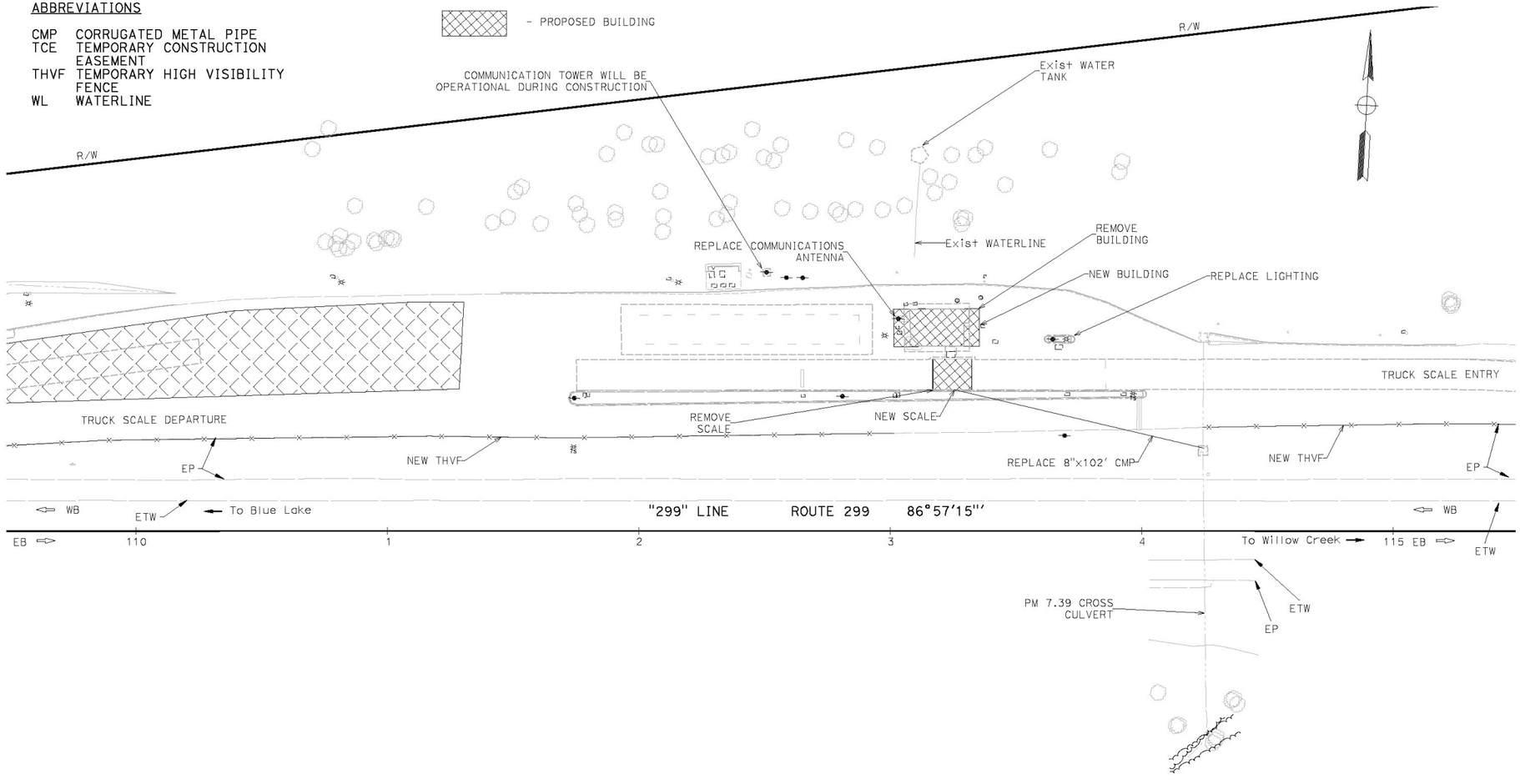
1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

LEGEND:

- STAGING AREA
- LEACH FIELD
- PROPOSED BUILDING
- PERMANENT EASEMENT
- TCE

ABBREVIATIONS

CMP	CORRUGATED METAL PIPE
TCE	TEMPORARY CONSTRUCTION EASEMENT
THVF	TEMPORARY HIGH VISIBILITY FENCE
WL	WATERLINE



LAYOUT

SCALE: 1"=20'

L-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — DESIGN

FUNCTIONAL SUPERVISOR: ANDRE GUIMARAES

CALCULATED-DESIGNED BY: PHIL TRAN

CHECKED BY: BRIAN HODGSON

REVISED BY | DATE REVISED

LAST REVISION | DATE PLOTTED => $DATE | TIME PLOTTED => $TIME

BORDER LAST REVISED 8/5/2020 | USERNAME => $USER | DGN FILE => $REQUEST | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0313 | PROJECT NUMBER & PHASE 01220000450

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 2023

NON-DISCRIMINATION POLICY STATEMENT

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964, ensures *"No person in the United States shall, on the ground 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."*

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. In addition, Caltrans will facilitate meaningful participation in the transportation planning process in a non-discriminatory manner.

Related federal statutes, remedies, and state law further those protections to include sex, disability, religion, sexual orientation, and age.

For information or guidance on how to file a complaint, or obtain more information regarding Title VI, please contact the Title VI Branch Manager at (916) 639-6392 or visit the following web page: https://dot.ca.gov/programs/civil-rights/title-vi.

To obtain this information in an alternate format such as Braille or in a language other than English, please contact the California Department of Transportation, Office of Civil Rights, at PO Box 942874, MS-79, Sacramento, CA 94274-0001; (916) 879-6768 (TTY 711); or at Title.VI@dot.ca.gov.

TONY TAVARES
Director

"Provide a safe and reliable transportation network that serves all people and respects the environment"

Appendix C. Project Plant and Animal Species Tables–Species with Potential to Occur

Special Status Plant Species Potentially Occurring or Known to Occur in the Project Area

Common Name	*Scientific Name*	Status Federal/State/CRPR	Habitat	Elevational Range (feet)	Habitat Presence	Rationale
Vascular Plants						
Alpine marsh violet	*Viola palustris*	--/--/2B.2	Bogs and fens (coastal), and coastal scrub (mesic).	0 - 490 feet	Absent	No suitable habitat present.
American manna grass	*Glyceria grandis*	--/--/2B.3	Occurs in wetlands; riparian, streambanks, lake-margins, meadows, bogs/fens, edges.	50 – 6,495	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.
Bald Mountain milk-vetch	*Astragalus umbraticus*	--/--/2B.2	Cismontane woodland, lower montane coniferous forest.	490 – 4,100	**Present**	Potential suitable habitat present, however, this species was not encountered during botanical surveys.
beach layia	*Layia carnosa*	FT/SE/1B.1	Coastal dunes and coastal scrub (sandy)	0-195	Absent	No suitable habitat present.

Common Name	*Scientific Name*	Status Federal/State/CRPR	Habitat	Elevational Range (feet)	Habitat Presence	Rationale
Bensoniella	*Bensoniella oregona*	--/SR/1B.1	Bogs and fens, lower montane coniferous forest (openings), Meadows and seeps.	2955 – 4,595	Absent	Project is outside of species elevational range.
Bolander's lily	*Lilium bolanderi*	--/--/4.2	Serpentinite soils in chaparral, lower montane, and coniferous forests.	100 – 5,250	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.
Bristle stalked sedge	*Carex leptalea*	--/--/2B.2	Bogs and fens, marshes and swamps, and meadows and seeps (mesic).	0-2,295	Absent	Project ESLs lack suitable wetland habitat.
Bunchberry	*Cornus unalaschkensis*	--/--/2B.2	Bogs, fens, meadows, or seeps in North Coast coniferous forest.	195 – 6,300	Absent	Project ESLs lack suitable wetland habitat.
California globe mallow	*Iliamna latibracteata*	--/--/1B.2	Chaparral, lower montane coniferous forest, North Coast coniferous forest, riparian scrub.	195 – 6,560	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.

Common Name	*Scientific Name*	Status Federal/State/CRPR	Habitat	Elevational Range (feet)	Habitat Presence	Rationale
California pinefoot	*Pityopus californicus*	--/--/4.2	Broad-leaved upland forest, lower and upper montane coniferous forest, and North Coast coniferous forest.	50 – 7,300	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.
Clustered lady's-slipper	*Cypripedium fasciculatum*	--/--/4.2	Mesic or moist sites in lower montane coniferous forest and North Coast coniferous forest.	330 – 7,990	Absent	No suitable habitat. present.
Coast checkerbloom	*Sidalcea oregana* ssp. *eximia*	--/--/1B.2	Lower montane coniferous forest, North Coast coniferous forest, and meadows and seeps.	15 – 4,395	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.
Coast fawn lily	*Erythronium revolutum*	--/--/2B.2	Bogs and fens, broadleafed upland forest, and North Coast coniferous forest.	0 - 5250	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.

Common Name	*Scientific Name*	Status Federal/State/CRPR	Habitat	Elevational Range (feet)	Habitat Presence	Rationale
Coast Range lomatium	*Lomatium martindalei*	--/--/2B.3	Meadows and seeps in coastal bluff scrub and lower montane coniferous forest.	785 – 9,845	Absent	Project ESLs are outside of species elevational range and lack suitable meadow and seep habitat.
Columbia yellow cress	*Rorippa columbiae*	--/--/1B.2	Meadows, seeps, playas, or vernal pools in lower montane coniferous forests.	3,935 – 5,905	Absent	Project is outside species elevational range.
Cylindrical trichodon	*Trichodon cylindricus*	--/--/2B.2	Broadleafed upland forest, meadows and seeps, and upper montane coniferous forest.	165 - 6570	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys..
Dark-eyed gilia	*Gilia millefoliata*	--/--/1B.2	Coastal dunes.	5 - 100	Absent	No suitable habitat present.
Del Norte checkerbloom	*Sidalcea elegans*	--/--/3.3	Chaparral, lower montane coniferous forest.	705 – 4,480	Absent	Project ESLs are outside species geographical range.
Dudley's rush	*Juncus dudleyi*	--/--/2B.3	Wetland areas in lower montane coniferous forest.	1,495 – 6,560	Absent	Project is outside species elevational range.

Common Name	*Scientific Name*	Status Federal/State/CRPR	Habitat	Elevational Range (feet)	Habitat Presence	Rationale
Evergreen everlasting	*Antennaria suffrutescens*	--/--/4.3	Lower montane coniferous forest.	1,640 – 5,250	Absent	Project is outside species elevational range.
Ghost-pipe	*Monotropa uniflora*	--/--/2B.2	Found in broadleafed upland forest and North Coast coniferous forest.	35-1,805	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.
Giant fawn lily	*Erythronium oregonum*	--/--/2B.2	Cismontane woodland and meadows and seeps.	330 – 3775	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.
Glaucous tauschia	*Tauschia glauca*	--/--/4.3	Lower montane coniferous forest (gravely, serpentine).	260 – 5,580	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.

Common Name	*Scientific Name*	Status Federal/State/CRPR	Habitat	Elevational Range (feet)	Habitat Presence	Rationale
Great burnet	*Sanguisorba officinalis*	--/--/2B.2	Bogs and fens, Broadleafed upland forest, Marshes and swamps, Meadows and seeps, North Coast coniferous forest, and Riparian forest	195 - 4595	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.
heart-leaved twayblade	*Listera cordata*	--/--/4.2	Found in bogs and fens, lower montane coniferous forest, and North Coast coniferous forest.	15 to 4,495	**Present**	Suitable forest habitat may be present within the project's ESLs. However, this species was not encountered during botanical surveys.
Heckner's lewisia	*Lewisia cotyledon* var. *heckneri*	--/--/1B.2	Lower montane coniferous forest	740 – 6890	Absent	Project is outside species elevational range.
Heckner's stonecrop	*Sedum laxum* ssp. *heckneri*	--/--/4.3	Serpentinite or gabbroic soils in lower and upper montane coniferous forests.	330 – 6,890	**Present**	Potential suitable habitat exists within the Orleans MS ESL; however, this species was not encountered during botanical surveys.

Common Name	*Scientific Name*	Status Federal/State/CRPR	Habitat	Elevational Range (feet)	Habitat Presence	Rationale
Hooker's catchfly	*Silene hookeri*	--/--/2B.2	Chaparral, cismontane woodland, and Lower montane coniferous forest.	490 - 4135	**Present**	Suitable habitat and species present within the Orleans MS ESL. This species is discussed further in Section 4.2.
Howell's draba	*Draba howellii*	--/--/4.3	Subalpine coniferous forest.	4.495 – 9,845	Absent	Project is outside species elevational range.
Howell's lewisia	*Lewisia cotyledon* var. *howellii*	--/--/3.2	Broad-leaved upland forest, chaparral, cismontane woodland, and lower montane coniferous forest.	490 – 6,595	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.
Howell's montia	*Montia howellii*	--/--/2B.2	Meadows and seeps, North Coast coniferous forest, vernal pools, sometimes roadsides.	0 - 2,740	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.

Common Name	*Scientific Name*	Status Federal/State/CRPR	Habitat	Elevational Range (feet)	Habitat Presence	Rationale
Humboldt Bay owl's-clover	*Castilleja ambigua* var. *humboldtiensis*	--/--/1B.2	Marshes and swamps (coastal salt).	0-10	Absent	No suitable habitat exists and the project is outside the species range.
Hutchison's Lewisia	*Lewisia kelloggii* ssp. *hutchisonii*	--/--/3.2	Upper montane coniferous forest.	2,510 – 7,760	Absent	Project is outside species elevational range.
Klamath arnica	*Arnica spathulata*	--/--/4.3	Lower montane coniferous forest.	2,100 – 5,905	Absent	Project is outside species elevational range.
Klamath gentian	*Gentiana plurisetosa*	--/--/1B.3	Meadows and seeps in lower and upper montane coniferous forest.	3,935 – 6,235	Absent	Project is outside species elevational range.
Leafy-stemmed mitrewort	*Mitellastra caulescens*	--/--/4.2	Found in broad-leafed upland forest, lower montane coniferous forest, meadows and seeps, and North Coast coniferous forest, in mesic areas, sometimes along roadsides.	15 to 5,580	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.

Common Name	*Scientific Name*	Status Federal/State/CRPR	Habitat	Elevational Range (feet)	Habitat Presence	Rationale
Lemon-colored fawn lily	*Erythronium citrinum* var. *citrinum*	--/--/4.3	Chaparral, lower montane coniferous forest.	490 – 4,265	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.
Lyngbye's sedge	*Carex lyngbyei*	--/--/2B.2	Marshes and swamps (brackish, freshwater).	0-35	**Absent**	No suitable habitat present.
Maple-leaved checkerbloom	*Sidalcea malachroides*	--/--/4.2	Broadleafed upland forest, coastal prairie, coastal scrub, North Coast coniferous forest, and riparian woodland.	0 - 2395	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.
Marble Mountain campion	*Silene marmorensis*	--/--/1B.2	Broad-leaved upland forest, chaparral, cismontane woodland, and lower montane coniferous forest.	560 – 4,100	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.

Common Name	*Scientific Name*	Status Federal/State/CRPR	Habitat	Elevational Range (feet)	Habitat Presence	Rationale
Modest rockcress	*Arabis modesta*	--/--/4.3	Chaparral and lower montane coniferous forest.	395 – 2,626	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.
Mountain lady's-slipper	*Cypripedium montanum*	--/--/4.2	Broad-leaved upland forest, cismontane woodland, lower montane coniferous forest, and North Coast coniferous forest.	605 – 7,300	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.
Mt. Eddy buckwheat	*Eriogonum umbellatum* var. *humistratum*	--/--/4.3	Alpine boulder and rock fields in chaparral, subalpine coniferous forest and upper montane coniferous forest.	5,580 – 9,185	Absent	Project is outside species elevational range.
Nodding semaphore grass	*Pleuropogon refractus*	--/--/4.2	Wet meadows and shady banks in lower montane coniferous forest and North Coast coniferous forests.	Sea level – 5,250	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.

Common Name	*Scientific Name*	Status Federal/State/CRPR	Habitat	Elevational Range (feet)	Habitat Presence	Rationale
Northern clustered sedge	*Carex arcta*	--/--/2B.2	Bogs and fens, North Coast coniferous forest (mesic).	195- 4,595	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.
Northern meadow sedge	*Carex praticola*	--/--/2B.2	Meadows and seeps.	Sea level – 10,500	Absent	Project lacks suitable meadow and seep habitats.
Northern microseris	*Microseris borealis*	--/--/2B.1	Bogs and fens, lower montane coniferous forest, meadows and seep.	3,280- 6,560	Absent	Project is outside species elevational range.
Oregon bleeding heart	*Dicentra formosa* ssp. *oregana*	--/--/4.2	Lower montane coniferous forest.	1,395 – 4,870	Absent	Project is outside species elevational range.
Oregon coast paintbrush	*Castilleja litoralis*	--/--/2B.2	Coastal bluff scrub, coastal dunes, and coastal scrub.	50 -300	Absent	No suitable habitat present.

Common Name	*Scientific Name*	Status Federal/State/CRPR	Habitat	Elevational Range (feet)	Habitat Presence	Rationale
Oregon fireweed	*Epilobium oreganum*	--/--/1B.2	Bogs and fens, lower montane coniferous forest, meadows and seeps, upper montane coniferous forest.	1,640 – 7,350	Absent	Project is outside species elevational range.
Oregon goldthread	*Coptis laciniata*	--/--/4.2	Meadows, seeps, streambanks, and mesic areas in North Coast coniferous forest.	Sea level – 3,280	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.
Oregon rockcress	*Arabis oregana*	--/--/4.3	Chaparral and lower montane coniferous forest.	1,970 – 6,005	Absent	Project is outside species elevational range.
Oregon sedge	*Carex halliana*	--/--/2B.3	Meadows and seeps in subalpine and upper montane coniferous forests.	4,495 – 6,905	Absent	Project is outside species elevational range.
Orleans iris	*Iris tenax* ssp. *klamathensis*	--/--/4.3	Lower montane coniferous forest.	330 – 4,595	**Present**	Suitable habitat and species present within the Orleans MS ESL. See Section 4.2 for further discussion.

Common Name	*Scientific Name*	Status Federal/State/CRPR	Habitat	Elevational Range (feet)	Habitat Presence	Rationale
Pacific fuzzwort	*Ptilidium californicum*	--/--/4.3	Lower and upper montane coniferous forest.	3,740 – 5,905	Absent	Project is outside species elevational range.
Pacific gilia	*Gilia capitata* ssp. *pacifica*	--/--/1B.2	Coastal bluff scrub, chaparral (openings), coastal prairie, and valley and foothill grassland	15 - 5,465	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.
Pacific golden saxifrage	*Chrysoplenium glechomifolium*	--/--/4.3	North Coast coniferous forest and riparian forest.	35 - 1770	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.
Pink sand-verbena	*Abronia umbellata* var. *breviflora*	--/--/1B.1	Coastal dunes.	0-35	Absent	No suitable habitat present.
Point Reyes salty bird's-beak	*Chloropyron maritimum* ssp. *palustre*	--/--/1B.2	Marshes and swamps (coastal salt).	0 - 35	Absent	No suitable habitat present; ESLs are outside of species range.

Common Name	*Scientific Name*	Status Federal/State/CRPR	Habitat	Elevational Range (feet)	Habitat Presence	Rationale
Porcupine sedge	*Carex hystericina*	--/--/2B.1	Marshes and swamps.	2,000 – 3,000	Absent	Project is outside species elevational range.
Redwood lily	*Lilium rubescens*	--/--/4.2	Broad-leaved upland forest, chaparral, lower and upper montane coniferous forests, and North Coast coniferous forest.	100 – 6,265	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.
Robust false lupine	*Thermopsis robusta*	--/--/1B.2	Broad-leaved upland forest, North Coast coniferous forest.	490 – 4,920	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.
Running-pine	*Lycopodium clavatum*	--/--/4.1	Found in lower montane coniferous forest (mesic), marshes and swamps, and North Coast coniferous forest (mesic).	150 - 4,020	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.
	Claytonia obovata	--/--/4.3	Openings and rocky talus slopes in subalpine coniferous forest.	4,545 – 9,300	Absent	Project is outside species elevational range.

Common Name	*Scientific Name*	Status Federal/State/CRPR	Habitat	Elevational Range (feet)	Habitat Presence	Rationale
Seacoast ragwort	*Packera bolanderi* var. *bolanderi*	--/--/2B.2	Coastal scrub and North Coast coniferous forest	100 - 2135	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.
Seaside bittercress	*Cardamine angulata*	--/--/2B.1	Found in lower montane and North Coast coniferous forests along streambanks.	50 - 3,000	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.
Seaside pea	*Lathyrus japonicus*	--/--/2B.1	Coastal dunes.	5 -100	Absent	No suitable habitat exists; Project ESLs are outside of species range.
Serpentine arnica	*Arnica cernua*	--/--/4.3	Lower montane coniferous forest.	1,640 – 6,300	Absent	Project is outside species elevational range.
Siskiyou bells	*Prosartes parvifolia*	--/--/1B.2	Disturbed areas, burned areas, roadsides in upper and lower montane coniferous forest.	2295 - 5005	Absent	Project is outside species elevational range.

Common Name	*Scientific Name*	Status Federal/State/CRPR	Habitat	Elevational Range (feet)	Habitat Presence	Rationale
Siskiyou checkerbloom	*Sidalcea malviflora* ssp. *patula*	--/--/1B.2	Coastal bluff scrub, coastal prairie, and North Coast coniferous forest.	50 - 4035	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.
Siskiyou false-hellebore	*Veratrum insolitum*	--/--/4.3	Red clay soils in chaparral and lower montane coniferous forest.	150 – 5,365	Absent	Project ESLs lack suitable clay soils.
Siskiyou onion	*Allium siskiyouense*	--/--/4.3	Lower montane coniferous forest, upper montane coniferous forest.	2,805 – 8,205	Absent	Project is outside species elevational range.
Small groundcone	*Kopsiopsis hookeri*	--/--/2B.3	Parasitic plant typically found near host plants *Gaultheria shallon*, *Arbutus menziesii*, and/or *Arctostaphylos uva-ursi*. North Coast coniferous forest.	295 – 2,905	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.

Common Name	*Scientific Name*	Status Federal/State/CRPR	Habitat	Elevational Range (feet)	Habitat Presence	Rationale
Sticky pea	*Lathyrus glandulosus*	--/--/4.3	Cismontane woodland	985 - 2625	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.
Ternate buckwheat	*Eriogonum ternatum*	--/--/4.3	Lower montane coniferous forest.	1,000 – 7,300	Absent	Project is outside species elevational range.
Timber blue grass	*Poa rhizomata*	--/--/1B.3	Semi-shaded moist slopes, small openings in lower and upper montane coniferous forest and subalpine coniferous forest.	1705 - 6695	Absent	Project is outside species elevational range.
Tracy's collomia	*Collomia tracyi*	--/--/4.3	Rocky, sometimes serpentinite soils in broad-leafed upland forest and lower montane coniferous forest.	985 – 6,890	Absent	Project ESLs lack suitable rocky habitat
Tracy's lupine	*Lupinus tracyi*	--/--/4.3	Upper montane coniferous forest.	2,935 – 6,560	Absent	Project is outside species elevational range.

Common Name	*Scientific Name*	Status Federal/State/CRPR	Habitat	Elevational Range (feet)	Habitat Presence	Rationale
Tracy's sanicle	*Sanicula tracyi*	--/--/4.2	Cismontane woodland, lower montane coniferous forest, and upper montane coniferous forest.	330 - 5200	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.
Trailing black currant	*Ribes laxiflorum*	--/--/4.3	North Coast coniferous forest.	15 - 4575	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.
Trifoliate laceflower	*Tiarella trifoliata* var. *trifoliata*	--/--/3.2	Lower montane coniferous forest, and North Coast coniferous forest.	560 - 4920	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.
Water bulrush	*Schoenoplectus subterminalis*	--/--/2B.3	Bogs, fens, marshes, and swamps.	2,460 – 7,380	Absent	Project is outside species elevational range.

Common Name	*Scientific Name*	Status Federal/State/CRPR	Habitat	Elevational Range (feet)	Habitat Presence	Rationale
Western lily	*Lilium occidentale*	FE/SE/1B.1	Bogs and fens, coastal bluff scrub, coastal prairie, coastal scrub, marshes and swamps (freshwater),North Coast coniferous forest (openings).	5- 605	**Present**	Marginal potential habitat exists within the project ESLs. This species was not encountered during botanical surveys.
Western sand-spurrey	*Spergularia canadensis* var. *occidentalis*	--/--/2B.1	Marshes and swamps (coastal salt).	0-10	Absent	Project is outside species range.
white-flowered rein orchid	*Piperia candida*	--/--/1B.2	Broad-leaved upland forest, lower montane coniferous forest, and North Coast coniferous forest.	100 – 4,300	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.
Wolf's evening-primrose	*Oenothera wolfii*	--/--/1B.1	Coastal bluff scrub, coastal dunes, coastal prairie, and lower montane coniferous forest.	10 - 2625	Absent	No suitable habitat exists.
Mosses and Lichens						

Common Name	*Scientific Name*	Status Federal/State/CRPR	Habitat	Elevational Range (feet)	Habitat Presence	Rationale
Crinkled rag lichen	*Platismatia lacunosa*	--/--/2B.3	North Coast coniferous forest, and riparian woodland.	65 - 6560	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.
Elongate copper moss	*Mielichhoferia elongate*	--/--/4.3	Often on rock and soils with heavy metals or mine tailings in broad-leaved upland forest, chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, subalpine coniferous forest.	0 – 6,430	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.
Green shield moss	*Buxbaumia viridis*	--/--/2B.2	Lower montane coniferous forest, subalpine coniferous forest, and upper montane coniferous forest.	3,200 – 7,220	Absent	Project is outside species elevational range.

Common Name	*Scientific Name*	Status Federal/State/CRPR	Habitat	Elevational Range (feet)	Habitat Presence	Rationale
Methuselah's beard lichen	*Usnea longissima*	--/--/4.2	On tree branches; usually on old-growth hardwoods and conifers, broad-leafed upland forest, and North Coast coniferous forest.	165 - 4790	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys
minute pocket moss	*Fissidens pauperculus*	--/--/1B.2	North Coast coniferous forest (damp coastal soil).	10 - 1024	**Present**	Potential marginally suitable habitat exists within project ESLs. This species was not encountered during botanical surveys.
Slender silver moss	*Anomobryum julaceum*	--/--/4.2	Occurs on damp rock and soil on outcrops, usually on roadcuts.	330 - 3280	**Present**	Potential suitable habitat is present; however, this species was not encountered during botanical surveys.
Twisted horsehair lichen	*Sulcaria spiralifera*	--/--/1B.2	Coastal dunes (San Luis Obispo County.) North Coast coniferous forest (immediate coast).	0 - 295	Absent	Project ESLs are outside species range.

Common Name	*Scientific Name*	Status Federal/State/CRPR	Habitat	Elevational Range (feet)	Habitat Presence	Rationale
Listing Status:						
Federal: FE = Federal Endangered; FT = Federal Threatened						
State: SE = State Endangered; SR = State Rare						
California Rare Plant Rank (CRPR): 1B = rare, threatened, or endangered in California and elsewhere; 2B = rare, threatened, or endangered in California but more common elsewhere; 3 = more information is needed (on Review List); 4 = limited distribution (on Watch List)						
CRPR Threat Ranking: 0.1 = seriously endangered in California, 0.2 = fairly endangered in California, 0.3 = not very endangered in California.						

Special Status Animal Species Potentially Occurring or Known to Occur in the Project Area

Common Name	*Scientific Name*	Status[1] Federal/ State	General Habitat Description	Habitat Present/ Absent	Rationale
AMPHIBIANS AND REPTILES					
Cascades frog	*Rana cascadae*	--/SCE, SSC	Inhabits wet mountain areas in open coniferous forests to near timberline, including small streams, small pools in meadows, lakes, bogs, ponds, and marshy areas near streams.	Absent	Project BSA s are outside the geographical range of this species.
Foothill yellow-legged frog–North Coast DPS (Pop. 1) Northwest/ North coast clade)	*Rana boylii*	--/SSC	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats.	**Present**	Potentially suitable habitat may be present within the Orleans MS ESL. This species is discussed further in Section 4.3.1.
Northern red-legged frog	*Rana aurora*	--/SSC	Occurs in humid forests, woodlands, grasslands, and stream edges with plant cover in the vicinity of quiet, permanent pools of streams, marshes, and/or ponds. Requires permanent or semi-permanent pools for larval development.	**Present**	The Orleans ESL outside of this species' range. Suitable habitat is present within the Buckhorn ESL. This species is discussed further in Section 4.3.1

Common Name	*Scientific Name*	Status[1] Federal/ State	General Habitat Description	Habitat Present/ Absent	Rationale
Pacific tailed frog	*Ascaphus truei*	--/SSC	Occurs in montane hardwood-conifer, redwood, Douglas-fir and ponderosa pine habitats. Restricted to perennial montane streams. Tadpoles require water below 59° Fahrenheit (°F).	**Present**	Potentially suitable habitat is present within the Orleans MS ESL. This species is discussed further in Section 4.3.1
Southern torrent salamander	*Rhyacotriton variegates*	--/SSC	Coastal redwood, Douglas-fir, mixed conifer, montane riparian and montane hardwood-conifer habitats. Old growth forest. Cold, well-shaded, permanent streams and seepages, or within splash zone or on moss-covered rock within trickling water.	**Present**	Potentially suitable habitat may be present within the Orleans MS ESL. This species is discussed further in Section 4.3.1
Northwestern pond turtle	*Actinemys marmorata*	FPT/SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6,000 feet elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.31 mile (0.5 km) from water for egg-laying.	**Present**	Potentially suitable overwintering, nesting and aquatic habitat is present within the project BSAs. Portions of the Orleans MS ESL and project footprint may provide potential habitat for NWPT. This species is discussed further in Section 4.3.1
BIRDS					

Common Name	*Scientific Name*	Status[1] Federal/ State	General Habitat Description	Habitat Present/ Absent	Rationale
American (Northern) goshawk	*Accipiter atricapillus (gentilis)*	--/SSC	Typically found in the interiors of extensive, remote, mature old-growth forests. Uses old nests and maintains alternate sites.	Absent	Project BSA s lack suitable nesting and foraging habitat.
American peregrine falcon	*Falco peregrinus anatum*	DL/DL	This species predominantly nests on cliff faces but is also known to utilize buildings, bridges, and transmission structures.	**Present**	Potentially suitable nesting and foraging habitat may be present within the Project BSAs, but not within either of the ESLs.
Bald eagle	*Haliaeetus leucocephalus*	DL/SE, FP	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	**Present**	Potentially suitable nesting and foraging habitat may be present within the project BSAs, but not within either of the ESLs.
Bank swallow	*Riparia riparia*	--/ST	Nests in colonies within vertical banks near water sources. They require loose, sandy or silty soil for burrow excavation. Foraging habitat includes open areas like wetlands, agricultural fields, and open water.	**Present**	Potentially suitable nesting and foraging habitat may be present within the project BSAs, but not within either of the ESLs.

Common Name	*Scientific Name*	Status[1] Federal/ State	General Habitat Description	Habitat Present/ Absent	Rationale
Black swift	*Cypseloides niger*	--/SSC	Nests on ledges or in crevices in steep cliffs, either along coast or near streams or waterfalls in mountains.	**Present**	Potentially suitable nesting and foraging habitat may be present within the project BSAs, but not within either of the ESLs.
California condor–Pacific Northwest NEP	*Gymnogyps californianus*	Non-Essential Experimental population (NEP)	Inhabit mountainous regions with cliffs and caves for nesting, and open grasslands and woodlands for foraging. An experimental population has been established within Redwood National and State parks and the Ancestral territory of the Yurok Tribe.	Absent	The project's BSAs may be within the range of the experimental population. However, no suitable nesting, roosting or foraging habitat exists within either of the project's ESLs.
Fork-tailed storm-petrel	*Hydrobates furcatus*	--/SSC	Breeds on a small number of islands in Del Norte and northern Humboldt counties. Forages at sea, mainly over the outer continental shelf and shelf edge, extending over 60 miles from their breeding locations.	Absent	No suitable habitat exists within the project ESLs or BSAs.
Golden eagle	*Aquila chrysaetos*	--/FP	Cliff-walled canyons provide nesting habitat in most parts of range, also nests in large trees in open areas.	**Present**	Potentially suitable nesting and foraging habitat may be present within the project BSAs, but not within either of the ESLs.

Common Name	*Scientific Name*	Status[1] Federal/ State	General Habitat Description	Habitat Present/ Absent	Rationale
Marbled murrelet	*Brachyramphus marmoratus*	FT/SE	Breeds in inland forests along the Northcoast. Nests in forests with old-growth components, often in mature redwood or Douglas-forest within 60 miles of the coast. Nests are typically located on large lateral limbs.	**Present**	Potentially suitable nesting and foraging habitat may be present within the Buckhorn BSA; however, not within the ESLs. No critical habitat has been designated within either of the project BSAs. This species is discussed further in Section 4.3.3
Mountain plover	*Charadrius montanus*	--/SSC	This species prefers short grasslands and plowed fields, and will also utilize agricultural lands, flat grazed land/pastures.	Absent	No suitable habitat present within the project BSAs.
Northern spotted owl	*Strix occidentalis caurina*	FT/ST	Old-growth forests or mixed stands of old-growth and mature trees. Occasionally in younger forests with patches of big trees. High, multistory canopy dominated by big trees, many trees with cavities or broken tops, woody debris and space under canopy.	**Present**	Potentially suitable nesting and foraging habitat may be present within the BSA, but not within the ESL. Designated Critical Habitat for this species exists within the Orleans MS BSA but is outside of the project's ESL. This species is discussed further in Section 4.3.3

Common Name	*Scientific Name*	Status[1] Federal/ State	General Habitat Description	Habitat Present/ Absent	Rationale
tufted puffin	*Fratercula cirrhata*	--/SSC	Nests on rocky islands and cliffs along the coast, from the Oregon border south to the Farallon Islands. During the breeding season they are most commonly found near these colonies and in nearby marine waters.	Absent	Project BSAs lack suitable habitat for this species.
Western snowy plover– Pacific Coast DPS	*Charadrius nivosus nivosus*	FT/SSC	Breeds above the high tide line on coastal beaches, sand spits, dune-backed beaches, sparsely-vegetated. dunes, beaches at creek and river mouths, and salt pans at lagoons and estuaries.	Absent	Project BSAs lack suitable habitat for this species.
White-tailed kite	*Elanus leucurus*	--/FP	Prefers open habitats like grasslands, marshes, and agricultural areas, with scattered trees for perching and nesting. They are often found near the edges of these habitats, such as woodlands or along roadsides.	Absent	Habitat for this species may be present within the project BSAs; however, the ESLs at both locations lack suitable habitat for this species.

Common Name	*Scientific Name*	Status[1] Federal/ State	General Habitat Description	Habitat Present/ Absent	Rationale
Yellow-billed cuckoo– Western U.S. DPS	*Coccyzus americanus*	FT/SE	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in dense riparian forests greater than 25 acres in size.	Absent	Although riparian habitat exists within the Orleans MS BSA, it is not dense or large enough to provide suitable habitat for this species. No suitable habitat exists within either of the project BSAs.
Yellow rail	*Coturnicops noveboracensis*	--/SSC	Inhabits shallow, grassy wetlands like wet meadows and fens, particularly those dominated by sedges. They require dense vegetation, standing water or saturated ground, and are often found in areas with emergent vegetation.	Absent	Project BSAs lack suitable habitat for this species.
FISH					
Chinook salmon– California Coastal (CC) ESU	*Oncorhynchus tshawytscha*	FT/--	CC Chinook ESU includes Chinook salmon populations inhabiting coastal watersheds from Redwood Creek in Humboldt County to the Russian River in Sonoma County.	Absent CH Absent EFH Absent	No potential habitat for this species exists within either of the project BSAs. No designated critical habitat for this species exists within either of the project BSAs. No EFH occurs within either of the project BSAs.

Common Name	*Scientific Name*	Status[1] Federal/ State	General Habitat Description	Habitat Present/ Absent	Rationale
Chinook salmon–Upper Klamath and Trinity Rivers ESU (Pop. 30)	*Oncorhynchus tshawytscha*	--/ST, SSC	Upper Klamath-Trinity River Chinook salmon are found in all major tributaries above the confluence of the Klamath and Trinity rivers and are raised in hatcheries below Iron Gate and Lewiston dams.	**Present** **EFH Present**	Known to occur within the BSA in the Klamath River. Cheenitch Creek within the Orleans MS ESL may also provide aquatic habitat for this species. EFH present This species is addressed further in Section 4.3.4
Coastal cutthroat trout	*Oncorhynchus clarkii clarkii*	--/SSC	Found in small, low-gradient coastal streams that are cool, shaded, with cover. Also found in estuaries. They are anadromous, but strongly associated with fresh water.	**Present**	Known to occur within the BSA in the Klamath River. Cheenitch Creek within the Orleans MS ESL may also provide aquatic habitat for this species. This species is addressed further in Section 4.3.4

Common Name	*Scientific Name*	Status[1] Federal/ State	General Habitat Description	Habitat Present/ Absent	Rationale
Coho salmon–Southern Oregon/Northern California Coast (SONCC) ESU (Pop. 2)	*Oncorhynchus kisutch*	FT/ST	Streams and rivers between Cape Blanco, Oregon, and Punta Gorda, California.	**Present** **Critical Habitat Present** **EFH Present**	Known to occur within the BSA in the Klamath River. Cheenitch Creek within the Orleans MS ESL may also provide aquatic habitat for this species. Critical habitat exists within the project BSA and ESL. EFH present This species is addressed further in Section 4.3.4
Eulachon–Northern DPS	*Thaleichthys pacificus*	SSC	An anadromous species that spends most of their life in the ocean feeding on plankton but historically spawn in North Coast rivers, including the Klamath River. They typically migrate upriver in March and April, moving a short distance (6-7.5 miles or 10-12 kilometers) from the mouth.	Absent	No habitat for this species exists within the project BSAs or ESLs.

Common Name	*Scientific Name*	Status[1] Federal/ State	General Habitat Description	Habitat Present/ Absent	Rationale
Green sturgeon– Northern DPS (Pop. 2)	*Acipenser medirostris*	--/SSC	Inhabits freshwater and saltwater environments along the Pacific coast from Alaska to Mexico. The southern DPS spawns in the Sacramento river and its tributaries. The northern DPS spawns in North Coast river systems, including the Klamath.	Absent	Habitat for Northern DPS green sturgeon may exist within the Orleans MS BSA; however, no habitat exists within the ESL. Species is discussed further in Section 4.3.4
Green sturgeon– Southern DPS (Pop. 1)	*Acipenser medirostris*	FT/SSC	Inhabits freshwater and saltwater environments along the Pacific coast from Alaska to Mexico. The southern DPS spawns in the Sacramento river and its tributaries. The northern DPS spawns in North Coast river systems, including the Klamath.	Absent CH Absent	The project BSAs are outside of the range of sDPS green sturgeon. There is habitat for Northern DPS green sturgeon within the Orleans MS BSA; however, no habitat exists within the ESL. Species is discussed further in Section 4.3.4
Klamath River lamprey	*Entosphenus similis*	--/SSC	Non-migratory, resident species of the Klamath River, perennial tributaries, and lakes within the Klamath River system.	**Present**	Known to occur within the BSA in the Klamath River. Cheenitch Creek within the Orleans MS ESL may also provide aquatic habitat for this species. This species is addressed further in Section 4.3.4.

Common Name	*Scientific Name*	Status[1] Federal/ State	General Habitat Description	Habitat Present/ Absent	Rationale
Longfin smelt	*Spirinchus thaleichthys*	FT/SE	Historically occurred in the lower Klamath River, including the Klamath Estuary; recent observations have been sporadic, with occasional collections of adults and larvae in the estuary.	Absent	No habitat for this species exists within the project BSAs or ESLs.
Lower Klamath marbled sculpin	*Cottus klamathensis polyporus*	--/SSC	Non-migratory, resident species of the Klamath River and perennial tributaries in the Klamath River system.	**Present**	Known to occur within the BSA in the Klamath River. Cheenitch Creek within the ESL may provide suitable habitat for this species. This species is addressed further in Section 4.3.4.
Pacific lamprey	*Entosphenus tridentatus*	--/SSC	An anadromous species that inhabit streams, rivers, and the Pacific Ocean. They require loose gravel for spawning and fine sediment for larval development. In the ocean, they inhabit depths from 300 to 2,600 feet.	**Present**	Known to occur within the BSA in the Klamath River; portions of the ESL may provide marginal habitat for this species. This species is addressed further in Section 4.3.4.

Common Name	*Scientific Name*	Status[1] Federal/ State	General Habitat Description	Habitat Present/ Absent	Rationale
Steelhead– Northern California DPS (Pop. 48) (*summer run)* and Northern California DPS (Pop. 49) (*winter run)*	*Oncorhynchus mykiss irideus*	FT/SE and FT/SSC	Includes all naturally spawned Steelhead populations in coastal river basins from Redwood Creek (Humboldt County) to the Gualala River (Mendocino County).	Absent CH Absent	No habitat for these populations occur within the project BSAs. No critical habitat for this species exists within the project BSAs.
Steelhead– Klamath Mountains Province DPS *(summer and winter runs)*	*Oncorhynchus mykiss irideus*	--/SCE, SSC	all naturally spawned steelhead populations in coastal rivers and creeks from the Klamath and Trinity Rivers north to the Elk River near Port Orford, Oregon, including the Smith and Rogue Rivers	**Present**	Cheenitch Creek within the Orleans MS ESL may provide aquatic habitat for this species. Also known to occur within the BSA in the Klamath River. This species is addressed further in Section 4.3.4.
tidewater goby	*Eucyclogobius newberryi*	FE/SSC	Inhabits coastal California lagoons, estuaries, marshes, and freshwater tributaries, characterized by shallow, still ,but not stagnant, water, with salinities typically less than 12 parts per thousand.	Absent	No habitat exists for this species within the project BSA.

Common Name	*Scientific Name*	Status[1] Federal/ State	General Habitat Description	Habitat Present/ Absent	Rationale
Western brook lamprey	*Lampetra richardsoni*	--/SSC	Inhabit coastal streams and rivers from Alaska to California, with inland populations in the Columbia and Sacramento-San Joaquin River drainages.	**Present**	The Orleans MS is within the inland limits of this species range; therefore, potential aquatic habitat may exist within the Orleans MS BSA (in the Klamath River) and within the Orleans MS ESL (Cheenitch Creek). This species is discussed further in Section 4.3.4.
MARINE REPTILES AND MAMMALS					
Green sea turtle–East Pacific DPS	*Chelonia mydas*	FE/ST	Open ocean habitat. In eastern North Pacific, occurs from southern Alaska to Baja California; most commonly occurs from San Diego south. Adults and juveniles found all over the world, nearshores as well as in bays and lagoons, on reefs, and especially in areas with seagrass beds. Forages in coastal areas. Open beaches with a sloping platform and minimal disturbance required for nesting but does not nest in Pacific Northwest coast.	Absent	No marine habitat exists within over 5 miles of the project BSAs.

Common Name	*Scientific Name*	Status[1] Federal/ State	General Habitat Description	Habitat Present/ Absent	Rationale
Olive Ridley sea turtle	*Lepidochelys olivacea*	FT/SE	Occurs worldwide in tropical and warm temperate ocean waters. Open ocean inhabitant of tropical regions of the Pacific, Atlantic, and Indian oceans. Majority of nesting occurs along continental margins and rarely on oceanic islands. Does not nest in the United States (USFWS 2025).	Absent	No marine habitat exists within over 5 miles of the project BSAs.
Leatherback sea turtle	*Dermochelys coriacea*	FE/SE	Known populations from Atlantic and Pacific oceans. Adults are pelagic and migratory. Females nest on beaches in tropical latitudes. Known foraging habitat includes oceanic and nearshore waters in temperate and boreal latitudes. Occurs off the coasts of California, Oregon, and Washington.	Absent	No marine habitat exists within over 5 miles of the project BSAs.
Blue whale	*Balaenoptera musculus*	FE/--	Coastal and pelagic waters.	Absent	No habitat exists within or near the project BSAs.
Fin whale	*Balaenoptera physalus*	FE/SE	Deep, offshore waters of all major oceans, primarily in temperate to polar latitudes, and less commonly in the tropics.	Absent	No habitat exists within or near the project BSAs.

Common Name	*Scientific Name*	Status[1] Federal/ State	General Habitat Description	Habitat Present/ Absent	Rationale
Humpback whale–Western North Pacific DPS	*Megaptera novaeangliae*	FE/--	Open waters; this species feeds in primarily cold, productive waters, and is sometimes observed close to shore.	Absent	No habitat exists within or near the project BSAs.
Killer whale–Southern Resident DPS	*Orcinus orca*	FE/--	Cold, coastal waters from southeastern Alaska to Monterey Bay.	Absent	No habitat exists within or near the project BSAs.
North Pacific right whale	*Eubalaena japonica*	FE/FP	Open waters. Most known nursery areas are in shallow, coastal waters.	Absent	No habitat exists within or near the project BSAs.
Sei whale	*Balaenoptera borealis*	FE/--	All oceans and adjoining seas except tropical and extreme polar regions, preferring subtropical and subpolar waters.	Absent	No habitat exists within or near the project BSAs.
Sperm whale	*Physeter macrocephalus*	FE/--	Inhabit most of the world's deep oceans, preferring ice-free waters deeper than 3,300 feet (1,000 meters).	Absent	No habitat exists within or near the project BSAs.
MAMMALS					
California wolverine	*Gulo gulo*	--/ST, FP	Found in mixed conifer, red fir, and lodgepole pine forests, and likely use subalpine conifer, alpine dwarf-shrub, wet meadow, and riparian habitats.	Absent	Presumed to be extirpated from the region

Common Name	*Scientific Name*	Status[1] Federal/ State	General Habitat Description	Habitat Present/ Absent	Rationale
Fisher–West Coast DPS	*Pekania pennanti*	--/SSC	Intermediate to large-tree stages of coniferous forests and deciduous-riparian areas with high percent canopy closure. Uses cavities, snags, logs and rocky areas for cover and denning. Needs large areas of mature, dense forest.	**Present**	Suitable habitat is present within the project BSAs. This species is discussed further in Section 4.3.5.
Pacific (Humboldt) marten–Coastal DPS	*Martes caurina humboldtensis*	FT/SE, SSC	Known from Del Norte and Humboldt counties and adjacent western Siskiyou County. Typically found in late successional coniferous forests (USFWS 2018b).	**Present**	The Orleans MS BSA is on the eastern edge of the Northern Coastal California Extant Population Area for the species and suitable habitat may be present in forested habitats within the BSA at this location. No potential resting/denning habitat exists within the project ESLs. This species is discussed further in Section 4.3.5.

Common Name	*Scientific Name*	Status[1] Federal/ State	General Habitat Description	Habitat Present/ Absent	Rationale
Pallid bat	*Antrozous pallidus*	--/SSC	This species can be found in mature oak woodland, ponderosa pine and other dry conifer forests. Large snags are preferred for roosting (WBWG 2021).	**Present**	Suitable roosting habitat may exist within the BSA. The ESL may provide marginal habitat for this species. This species is discussed further in Section 4.3.6.
Ringtail	*Bassariscus astutus*	--/FP	A mixture of forest and shrubland in close association with rocky areas or riparian habitats. Dens in rock recesses, hollow trees, logs, snags, or abandoned burrows at low to middle elevations. Usually not found more than 0.6 mile from perennial waters.	**Present**	Suitable habitat is present within the project BSAs. The project ESLs may provide marginal habitat for this species. This species is discussed further in Section 4.3.5.
Sonoma tree vole	*Arborimus pomo*	--/SSC	Inhabits old-growth and mature coniferous forests (particularly those dominated by Douglas-fir) in northwest California.	Absent	Although potential suitable habitat may exist within the project BSAs, no suitable habitat exists within either of the ESLs.

Common Name	*Scientific Name*	Status[1] Federal/ State	General Habitat Description	Habitat Present/ Absent	Rationale
Townsend's big-eared bat	*Corynorhinus townsendii*	--/SSC	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites are limiting factor. Extremely sensitive to human disturbance (Western Bat Working Group [WBWG] 2021).	**Present**	Potentially suitable habitat is present within forest habitats within the BSAs. No roosting habitat exists within the project's ESLs. This species is discussed further in Section 4.3.6
White-footed vole	*Arborimus albipes*	--/SSC	Prefers moist, mature, and old-growth conifer and mixed temperate forests, with a preference for riparian areas near small streams.	Absent	Although potential suitable habitat may exist within portions of the Buckhorn BSA, no suitable habitat exists within either of the ESLs for the project.
INVERTEBRATES					
Crotch's bumble bee	*Bombus crotchii*	--/SCE	Inhabits grasslands and shrublands, including chaparral and areas near desert margins, and can also be found in semi-urban environments. They nest underground, often in abandoned rodent burrows, and require a hotter, drier environment compared to other bumble bee species.	Absent	According to CNDDB, the project is approximately 25 miles west of this species' range.

Common Name	*Scientific Name*	Status[1] Federal/ State	General Habitat Description	Habitat Present/ Absent	Rationale
Franklin's bumble bee	*Bombus franklini*	FE/SC	Prefers open grassy coastal prairies and coast range meadows, near seeps and other wet meadow environments provide floral resources for nectaring throughout the colony cycle.	Absent	The project is outside of this species' historic range.
Monarch butterfly	*Danaus plexippus*	FPT/--	Migratory species of butterfly known to overwinter in a variety of habitat types along coastal California, including Humboldt County. Overwintering habitat consists of a grove of trees with the necessary microclimate typically within 1.5 miles of the coast (WAFWA 2019).	**Present**	This species has been observed in the general vicinity of the Orleans BSA. Segments of the project ESLs may provide low to medium habitat based on a habitat suitability (Caltrans Monarch Habitat Suitability Model); however, because the ESLs lack suitable overwintering habitat and no larval host plants (*Asclepias* spp.) were observed in or adjacent to the project ESLs, no impacts to this species are expected.

Common Name	*Scientific Name*	Status[1] Federal/ State	General Habitat Description	Habitat Present/ Absent	Rationale
Shasta crayfish	*Pacifastacus fortis*	FE/SE	Occurs in cool, clear, spring-fed lakes, rivers and streams, usually at or near a spring inflow source. Typically requires adequate volcanic rock rubble for refuge from predators.	Absent	BSAs are outside the geographical range of this species.
Suckley's cuckoo bumble bee**	*Bombus suckleyi*	FPE/SCE	Generalist forager using a variety of flower types in meadow habitats in the western U.S.	**Present**	Suitable habitat is present within the BSA.
Vernal pool fairy shrimp	*Branchinecta lynchi*	FT/--	Occurs in vernal pool habitats, including artificial pools created by ditches.	Absent	BSA lacks suitable vernal pool habitat and is outside the geographical range of this species.
Western bumble bee**	*Bombus occidentalis*	FCE/SCE	Generalist foragers using a variety of flower types. Utilizes a wide range of plant species in a variety of habitat types. Typically constructs hives in underground burrows or crevices.	**Present**	Suitable habitat is present within the BSA; however, nesting within the project's ESLs is not likely due to disturbance and compacted gravel shoulders present within the ESL.

*__Federal Status__: FE = Endangered, FPE = Proposed Endangered, FPT = Proposed Threatened, FT = Threatened, FC = Candidate, DL = Delisted

__State Status:__ SE = Endangered, ST = Threatened, SC = Candidate, FP = CDFW Fully protected, SSC = CDFW Species of Special Concern (*Source: CNDDB 2025a; USFWS 2025*)

** Suckley's bumble bee and western bumble bee assessed at the request of CDFW

Appendix D. USFWS, NMFS, CNDDB, and CNPS Species Lists

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: 04/28/2025 18:24:03 UTC
Project Code: 2025-0089172
Project Name: 01-0L770: Orleans Maintenance Station and Buckhorn CVEF (Location 1: Orleans MS)

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, intentional or unintentional, 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.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. 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.

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

PROJECT SUMMARY

Project Code: 2025-0089172

Project Name: 01-0L770: Orleans Maintenance Station and Buckhorn CVEF (Location 1: Orleans MS)

Project Type: Road/Hwy - Maintenance/Modification

Project Description: The Orleans Maintenance Station (MS) and Buckhorn Commercial Vehicle Enforcement Facility (CVEF) Project proposes to improve transportation related facilities in Orleans (Orleans Maintenance Station) and near the town of Blue Lake (truck scale and Highway Patrol scale office/shelter) by replacing and upgrading existing substandard facilities and by adding electric vehicle charging stations (Orleans only). The Orleans MS occupies a little over one acre of developed land (1.5 acres total); the facility is mostly paved or otherwise developed (1.2 acres).

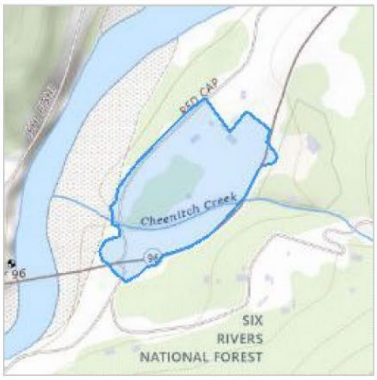
The proposed project involves the following actions at the Orleans Maintenance Station location:
• Demolish existing crew/equipment building.
• Construct new equipment and crew building (5,000 sq.ft. footprint).
• Reconstruct retaining wall for new building foundation.
• Install new infiltration gallery or bioswale for storm water management (within the fenced boundary of the MS).
• Install new leach field.
• Install a new bioswale within existing lawn area of the residence.
• Remove and replace perimeter fence and gate.
• Install new underground 8” water line to serve as fire water source for new crew/equipment building. Trenched line at a depth of 4.2 feet from south side of SR 96 and W. Pearch Creek Road intersection, up W. Pearch Creek Rd to MS.
• Upgrade electrical service to new building (800Amp) and add service for proposed EV chargers (600Amp). Overhead or underground options exist (final design by PGE during design phase).
• Add two Level 3 EV chargers and two Level 2 EV chargers.

Excavation would occur with the boundary of the MS, the MS driveway, along the SR 96 ROW, within the County Road (West Pearch Creek Road) and (potentially) within a private parcel adjacent to the MS. Excavation would be required for the installation of the leach field, drainage work for bioswale and construction of bioswale, new electrical cabinet/s and EV charger foundations, undergrounding of electrical and/or installation of new power poles (depending on final electrical design) building foundations, retaining wall reconstruction, footings for reconstructed perimeter fence and gate, and water line installation. Excavation depths will range from 2 to 10 feet.

Estimated working days for the work at the MS is 198 days.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@41.3046505,-123.53068516666667,14z



Counties: Humboldt County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 8 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.

---

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 Distinct Population Segment *Martes caurina* There is **final** critical habitat for this species. Your location does not overlap 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
Northern Spotted Owl *Strix occidentalis caurina* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1123	Threatened
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 does not overlap 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

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
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

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

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.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

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)

BALD & GOLDEN EAGLES INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED. PLEASE CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.

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). The incidental take of migratory birds is the injury or death of birds that results from, but is not the purpose, of an activity. The Service interprets the MBTA to prohibit incidental take.

---

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)

MIGRATORY BIRD INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED. PLEASE CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.

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.

RIVERINE

- R5UBF

IPAC USER CONTACT INFORMATION

Agency: California Department of Transportation
Name: Marion Thoreson
Address: 1656 Union Street
City: Eureka
State: CA
Zip: 95501
Email katie.thoreson@dot.ca.gov
Phone: 7074924268

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: 04/28/2025 18:49:24 UTC
Project Code: 2025-0089212
Project Name: 01-0L770: Orleans MS and Buckhorn CVEF Facility (Location 2)

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, intentional or unintentional, 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.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. 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.

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

PROJECT SUMMARY

Project Code: 2025-0089212
Project Name: 01-0L770: Orleans MS and Buckhorn CVEF Facility (Location 2)
Project Type: Road/Hwy - Maintenance/Modification
Project Description: The Orleans Maintenance Station (MS) and Buckhorn Commercial Vehicle Enforcement Facility (CVEF) Project proposes to improve transportation related facilities in Orleans (Orleans Maintenance Station) and near the town of Blue Lake (truck scale and Highway Patrol scale office/shelter) by replacing and upgrading existing substandard facilities and by adding electric vehicle charging stations (Orleans only).

Location2: Buckhorn CVEF:

The Buckhorn Weigh Station is a Caltrans weigh scale facility operated by CHP officers, serving southbound truck traffic on State Route 299, just east of the city of Blue Lake. The facility occupies approximately 1.5 acres of developed area immediately adjacent to the highway with on and off ramps, an underground weigh scale, and a small, 200 square foot building (herein 'scale house'), that provides equipment storage area and shelter and restrooms for CHP personnel. The scale is a pit scale and weighbridge system centered within a 425-foot-long concrete pad with an overhead weight readout. The scale house is served by and onsite septic, with a leach field located in the grassy median that separates the CVEF facility from the highway. Potable water is stored in a water tank located on the hill above the scale house. Electricity is provided by PGE and is underground at the CVEF facility. Telecommunications services are provided by a CHP radio/satellite unit mounted on the existing scale house.

The proposed project involves the following actions at the Buckhorn location:
• Demolish existing scale house (15'x24').
• Construct new scale house (15'x47').
• Demolish existing weigh scale (15'x12')
• Replace with new scale of similar dimensions.
• Install new leach field or alternative treatment system

Excavation occurring withing the Buckhorn CVEF (for installation of leach field, building foundations, and potential scale replacement) will range from depths of 2-10 feet.

Estimated working days for the work at the Buckhorn CVEF is 102 days.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@40.88438305,-123.96269047500004,14z

Counties: Humboldt County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 8 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.

---

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 Distinct Population Segment *Martes caurina* There is **final** critical habitat for this species. Your location does not overlap 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
Marbled Murrelet *Brachyramphus marmoratus* Population: U.S.A. (CA, OR, WA) There is **final** critical habitat for this species. Your location does not overlap 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 does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1123	Threatened
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 does not overlap 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

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

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

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.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

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)

BALD & GOLDEN EAGLES INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED. PLEASE CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.

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). The incidental take of migratory birds is the injury or death of birds that results from, but is not the purpose, of an activity. The Service interprets the MBTA to prohibit incidental take.

---

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)

MIGRATORY BIRD INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED. PLEASE CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.

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.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: California Department of Transportation
Name: Marion Thoreson
Address: 1656 Union Street
City: Eureka
State: CA
Zip: 95501
Email katie.thoreson@dot.ca.gov
Phone: 7074924268

Orleans and Buckhorn (NMFS)

From: Thoreson, Katie K@DOT
To: nmfs.wcrca.specieslist@noaa.gov
Subject: Species List request (01-0L770)
Date: Tuesday, May 20, 2025 10:48:00 PM
Attachments: image001.png

Species lists obtained for:

Orleans MS and Buckhorn CVEF project (01-0L770)
Caltrans, District 1
1656 Union Street
Eureka, CA

Contact:
Katie Thoreson
Environmental Scientist
Caltrans, District 1, North Region Environmental
707-492-4268
katie.thoreson@dot.ca.gov

-

Location 1: Orleans MS

Quad Name **Orleans**

Quad Number **41123-C5**

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) -

sDPS Green Sturgeon (T) -

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 -

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) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH - **X**

Chinook Salmon EFH - **X**

Groundfish EFH -

Coastal Pelagics EFH -

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 -

MMPA Pinnipeds -

Quad Name **Fish Lake**

Quad Number **41123-C6**

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) -

sDPS Green Sturgeon (T) -

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 -

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) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH - **X**

Chinook Salmon EFH - **X**

Groundfish EFH -

Coastal Pelagics EFH -

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 -

MMPA Pinnipeds -

Quad Name **Orleans Mountain**

Quad Number **41123-C4**

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) -

sDPS Green Sturgeon (T) -

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 -

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) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH - **X**

Chinook Salmon EFH - **X**

Groundfish EFH -

Coastal Pelagics EFH -

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 -

MMPA Pinnipeds -

Quad Name **Weitchpec**

Quad Number **41123-B6**

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) -

sDPS Green Sturgeon (T) -

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 -

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) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH - **X**

Chinook Salmon EFH - **X**

Groundfish EFH -

Coastal Pelagics EFH -

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 -

MMPA Pinnipeds -

Hopkins Butte

Quad Name

Quad Number **41123-B5**

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) -

sDPS Green Sturgeon (T) -

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 -

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) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH - **X**

Chinook Salmon EFH - **X**

Groundfish EFH -

Coastal Pelagics EFH -

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 -

MMPA Pinnipeds -

Salmon Mountain

Quad Name

Quad Number **41123-B4**

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) -

sDPS Green Sturgeon (T) -

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 -

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) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH - **X**

Chinook Salmon EFH - **X**

Groundfish EFH -

Coastal Pelagics EFH -

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 -

MMPA Pinnipeds -

Quad Name **Somes Bar**

Quad Number **41123-D4**

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) -

sDPS Green Sturgeon (T) -

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 -

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) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH - **X**

Chinook Salmon EFH - **X**

Groundfish EFH -

Coastal Pelagics EFH -

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 -

MMPA Pinnipeds -

Quad Name **Bark Shanty Gulch**

Quad Number **41123-D5**

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) -

sDPS Green Sturgeon (T) -

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 -

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) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH - **X**

Chinook Salmon EFH - **X**

Groundfish EFH -

Coastal Pelagics EFH -

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 -

MMPA Pinnipeds -

	Lonesome Ridge
Quad Name	
Quad Number	**41123-D6**

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) -

sDPS Green Sturgeon (T) -

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 -

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) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH - **X**

Chinook Salmon EFH - **X**

Groundfish EFH -

Coastal Pelagics EFH -

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 -

MMPA Pinnipeds -

Location 2: Buckhorn CEVF

Quad Name **Blue Lake**

Quad Number **40123-H8**

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) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat - **X**

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat - **X**

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat - **X**

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 -

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) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH - **X**

Chinook Salmon EFH - **X**

Groundfish EFH -

Coastal Pelagics EFH -

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 -

MMPA Pinnipeds -

Quad Name **Arcata North**

Quad Number **40124-H1**

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 -	**X**
CVSR Chinook Salmon Critical Habitat -	
SRWR Chinook Salmon Critical Habitat -	
NC Steelhead Critical Habitat -	**X**
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 **Crannell**

Quad Number **41124-A1**

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 - **X**

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat - **X**

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 **Panther Creek**

Quad Number **41123-A8**

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) -

sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat - X

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat - X

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat - X

CCC Steelhead Critical Habitat -

SCCC Steelhead Critical Habitat -

SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat -

Eulachon Critical Habitat -

sDPS Green Sturgeon Critical Habitat -

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) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH - **X**

Chinook Salmon EFH - **X**

Groundfish EFH -

Coastal Pelagics EFH -

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 -

MMPA Pinnipeds -

Quad Name **Hupa Mountain**

Quad Number **41123-A7**

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) -

sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat - **X**

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat - **X**

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat - **X**

CCC Steelhead Critical Habitat -

SCCC Steelhead Critical Habitat -

SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat -

Eulachon Critical Habitat -

sDPS Green Sturgeon Critical Habitat -

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) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH - **X**

Chinook Salmon EFH - **X**

Groundfish EFH -

Coastal Pelagics EFH -

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 -

MMPA Pinnipeds -

Quad Name **Lord-Ellis Summit**

Quad Number **40123-H7**

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) -

sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat - **X**

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat - **X**

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat - **X**

CCC Steelhead Critical Habitat -

SCCC Steelhead Critical Habitat -

SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat -

Eulachon Critical Habitat -

sDPS Green Sturgeon Critical Habitat -

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) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH - **X**

Chinook Salmon EFH - **X**

Groundfish EFH -

Coastal Pelagics EFH -

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 -

MMPA Pinnipeds -

uad Name **Maple Creek**

Quad Number **40123-G7**

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) -

sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat - **X**

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat - **X**

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat - **X**

CCC Steelhead Critical Habitat -

SCCC Steelhead Critical Habitat -

SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat -

Eulachon Critical Habitat -

sDPS Green Sturgeon Critical Habitat -

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) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH - **X**

Chinook Salmon EFH - **X**

Groundfish EFH -

Coastal Pelagics EFH -

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 -

MMPA Pinnipeds -

Quad Name **Korbel**

Quad Number **40123-G8**

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) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat - X

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat - X

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat - X

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 -

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) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH - **X**

Chinook Salmon EFH - **X**

Groundfish EFH -

Coastal Pelagics EFH -

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 -

MMPA Pinnipeds -

Quad Name **Arcata South**

Quad Number **40124-G1**

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 - **X**

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat - **X**

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) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

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 -

MMPA Pinnipeds - **X**

Katie Thoreson
Environmental Scientist
Caltrans, District 1, North Region Environmental
707-492-4268
katie.thoreson@dot.ca.gov

Orleans

Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database

Query Criteria: Quad IS (Orleans Mtn. (4112334) OR Orleans (4112335) OR Fish Lake (4112336) OR Salmon Mtn. (4112324) OR Lonesome Ridge (4112346) OR Bark Shanty Gulch (4112345) OR Weitchpec (4112326) OR Somes Bar (4112344))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Accipiter atricapillus American goshawk	ABNKC12061	None	None	G5	S3	SSC
Acipenser medirostris pop. 2 green sturgeon - northern DPS	AFCAA01032	None	None	G2T1	S1	SSC
Actinemys marmorata northwestern pond turtle	ARAAD02031	Proposed Threatened	None	G2	SNR	SSC
Ancotrema voyanum hooded lancetooth	IMGAS36130	None	None	G1G2	S1S2	
Anomobryum julaceum slender silver moss	NBMUS80010	None	None	G5	S2	4.2
Aplodontia rufa humboldtiana Humboldt mountain beaver	AMAFA01017	None	None	G5TNR	SNR	
Ardea herodias great blue heron	ABNGA04010	None	None	G5	S4	
Ascaphus truei Pacific tailed frog	AAABA01010	None	None	G4	S3S4	SSC
Astragalus umbraticus Bald Mountain milk-vetch	PDFAB0F990	None	None	G4	S2	2B.2
Atractelmis wawona Wawona riffle beetle	IICOL58010	None	None	G3	S1S2	
Bombus occidentalis western bumble bee	IIHYM24252	None	Candidate Endangered	G3	S1	
Bombus suckleyi Suckley's cuckoo bumble bee	IIHYM24350	Proposed Endangered	Candidate Endangered	G2G3	S1	
Bonasa umbellus ruffed grouse	ABNLC11010	None	None	G5	S3S4	WL
Carex halliana Oregon sedge	PMCYP035M0	None	None	G4G5	S2	2B.3
Carex hystericina porcupine sedge	PMCYP036D0	None	None	G5	S2	2B.1
Carex praticola northern meadow sedge	PMCYP03B20	None	None	G5	S2	2B.2
Coptis laciniata Oregon goldthread	PDRAN0A020	None	None	G4?	S3?	4.2
Cornus unalaschkensis bunchberry	PDCOR010F0	None	None	G5	S2	2B.2
Corynorhinus townsendii Townsend's big-eared bat	AMACC08010	None	None	G4	S2	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Cottus klamathensis polyporus Lower Klamath marbled sculpin	AFC4E02153	None	None	G4T2T4	S2S4	SSC
Cypseloides niger black swift	ABNUA01010	None	None	G4	S3	SSC
Entosphenus similis Klamath River lamprey	AFBAA02140	None	None	G3G4Q	S3	SSC
Epilobium oreganum Oregon fireweed	PDONA060P0	None	None	G2	S2	1B.2
Erythronium oregonum giant fawn lily	PMLIL0U0C0	None	None	G5	S2	2B.2
Erythronium revolutum coast fawn lily	PMLIL0U0F0	None	None	G4G5	S3	2B.2
Falco peregrinus anatum American peregrine falcon	ABNKD06071	Delisted	Delisted	G4T4	S3S4	
Gentiana plurisetosa Klamath gentian	PDGEN060V0	None	None	G2	S2	1B.3
Gilia capitata ssp. pacifica Pacific gilia	PDPLM040B6	None	None	G5T3	S3	1B.2
Gonidea angulata western ridged mussel	IMBIV19010	None	None	G3	S2	
Haliaeetus leucocephalus bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
Helminthoglypta hertleini Oregon shoulderband	IMGASC2280	None	None	G3Q	S1S2	
Helminthoglypta talmadgei Trinity shoulderband	IMGASC2630	None	None	G2	S2	
Juncus dudleyi Dudley's rush	PMJUN01390	None	None	G5	S1	2B.3
Klamath/No Coast Spring Run Chinook/Summer Steelhead Stream Klamath/No Coast Spring Run Chinook/Summer Steelhead Stream	CARB2333CA	None	None	GNR	SNR	
Klamath/North Coast Fall/Winter Run Chinook Salmon River Klamath/North Coast Fall/Winter Run Chinook Salmon River	CARB2332CA	None	None	GNR	SNR	
Klamath/North Coast Interior Headwater Fishless Stream Klamath/North Coast Interior Headwater Fishless Stream	CARB2220CA	None	None	GNR	SNR	
Klamath/North Coast Rainbow Trout Stream Klamath/North Coast Rainbow Trout Stream	CARB2312CA	None	None	GNR	SNR	
Kopsiopsis hookeri small groundcone	PDORO01010	None	None	G4?	S1S2	2B.3
Lewisia cotyledon var. heckneri Heckner's lewisia	PDPOR04052	None	None	G4T3	S3	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Lomatium martindalei Coast Range lomatium	PDAPI1B140	None	None	G5	S2	2B.3
Margaritifera falcata western pearlshell	IMBIV27020	None	None	G3G4	S1S2	
Martes caurina humboldtensis Humboldt marten	AMAJF01012	Threatened	Endangered	G4G5T1	S1	SSC
Mielichhoferia elongata elongate copper moss	NBMUS4Q022	None	None	G5	S3S4	4.3
Monadenia marmarotis marble sideband	IMGASC7060	None	None	G1	S1	
Montia howellii Howell's montia	PDPOR05070	None	None	G3G4	S2	2B.2
Oenothera wolfii Wolf's evening-primrose	PDONA0C1K0	None	None	G2	S1	1B.1
Oncorhynchus clarkii clarkii coast cutthroat trout	AFCHA0208A	None	None	G5T4	S3	SSC
Oncorhynchus tshawytscha pop. 30 chinook salmon - upper Klamath and Trinity Rivers ESU	AFCHA02056	Candidate	Threatened	G5T2Q	S2	SSC
Pandion haliaetus osprey	ABNKC01010	None	None	G5	S4	WL
Pekania pennanti Fisher	AMAJF01020	None	None	G5	S2S3	SSC
Piperia candida white-flowered rein orchid	PMORC1X050	None	None	G3?	S3	1B.2
Platismatia lacunosa crinkled rag lichen	NLLEC2Q010	None	None	G4	S2?	2B.3
Plethodon elongatus Del Norte salamander	AAAAD12050	None	None	G4	S3	WL
Poa rhizomata timber blue grass	PMPOA4Z250	None	None	G3G4	S2S3	1B.3
Prosartes parvifolia Siskiyou bells	PMLIL0R014	None	None	G2	S2	1B.2
Ptilidium californicum Pacific fuzzwort	NBHEP2U010	None	None	G4G5	S3S4	4.3
Rana boylii pop. 1 foothill yellow-legged frog - north coast DPS	AAABH01051	None	None	G3T4	S4	SSC
Rana cascadae Cascades frog	AAABH01060	None	Candidate Endangered	G3	S3	SSC
Rhyacotriton variegatus southern torrent salamander	AAAAJ01020	None	None	G3?	S2S3	SSC
Rorippa columbiae Columbia yellow cress	PDBRA27060	None	None	G3	S2	1B.2

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Schoenoplectus subterminalis water bulrush	PMCYP0Q1G0	None	None	G5	S3	2B.3
Sidalcea oregana ssp. eximia coast checkerbloom	PDMAL110K9	None	None	G5T1	S1	1B.2
Silene hookeri Hooker's catchfly	PDCAR0U2M0	None	None	G4	S2	2B.2
Silene marmorensis Marble Mountain campion	PDCAR0U0Z0	None	None	G2	S2	1B.2
Thermopsis robusta robust false lupine	PDFAB3Z0D0	None	None	G2	S2	1B.2
Vespericola karokorum Karok hesperian	IMGASA4040	None	None	G2	S2	

Record Count: 66

Buckhorn

Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database

Query Criteria: Quad IS (Blue Lake (4012388) OR Arcata North (4012481) OR Arcata South (4012471) OR Crannell (4112411) OR Korbel (4012378) OR Lord-Ellis Summit (4012387) OR Maple Creek (4012377) OR Panther Creek (4112318))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Abronia umbellata var. breviflora pink sand-verbena	PDNYC010N4	None	None	G4G5T2	S2	1B.1
Accipiter cooperii Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
Acipenser medirostris pop. 1 green sturgeon - southern DPS	AFCAA01031	Threatened	None	G2T1	S1	SSC
Actinemys marmorata northwestern pond turtle	ARAAD02031	Proposed Threatened	None	G2	SNR	SSC
Aplodontia rufa humboldtiana Humboldt mountain beaver	AMAFA01017	None	None	G5TNR	SNR	
Arborimus albipes white-footed vole	AMAFF23010	None	None	G3G4	S2	SSC
Arborimus pomo Sonoma tree vole	AMAFF23030	None	None	G3	S3	SSC
Ardea herodias great blue heron	ABNGA04010	None	None	G5	S4	
Ascaphus truei Pacific tailed frog	AAABA01010	None	None	G4	S3S4	SSC
Astragalus umbraticus Bald Mountain milk-vetch	PDFAB0F990	None	None	G4	S2	2B.2
Atractelmis wawona Wawona riffle beetle	IICOL58010	None	None	G3	S1S2	
Bensoniella oregona bensoniella	PDSAX02010	None	Rare	G3	S2	1B.1
Bombus caliginosus obscure bumble bee	IIHYM24380	None	None	G2G3	S1S2	
Bombus crotchii Crotch's bumble bee	IIHYM24480	None	Candidate Endangered	G2	S2	
Bombus occidentalis western bumble bee	IIHYM24252	None	Candidate Endangered	G3	S1	
Cardamine angulata seaside bittercress	PDBRA0K010	None	None	G4G5	S3	2B.1
Carex arcta northern clustered sedge	PMCYP030X0	None	None	G5	S1	2B.2
Carex leptalea bristle-stalked sedge	PMCYP037E0	None	None	G5	S1	2B.2
Carex lyngbyei Lyngbye's sedge	PMCYP037Y0	None	None	G5	S3	2B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Carex praticola northern meadow sedge	PMCYP03B20	None	None	G5	S2	2B.2
Castilleja ambigua var. humboldtiensis Humboldt Bay owl's-clover	PDSCR0D402	None	None	G5T2	S2	1B.2
Castilleja litoralis Oregon coast paintbrush	PDSCR0D012	None	None	G3	S3	2B.2
Cerorhinca monocerata rhinoceros auklet	ABNNN11010	None	None	G5	S3	WL
Charadrius montanus mountain plover	ABNNB03100	None	None	G3	S2	SSC
Charadrius nivosus nivosus western snowy plover	ABNNB03031	Threatened	None	G3T3	S3	SSC
Chloropyron maritimum ssp. palustre Point Reyes salty bird's-beak	PDSCR0J0C3	None	None	G4?T2	S2	1B.2
Cicindela hirticollis gravida sandy beach tiger beetle	IICOL02101	None	None	G5T2	S2	
Cleptes humboldti Humboldt cuckoo wasp	IIHYM67010	None	None	G1G2	S1S2	
Coptis laciniata Oregon goldthread	PDRAN0A020	None	None	G4?	S3?	4.2
Cornus unalaschkensis bunchberry	PDCOR010F0	None	None	G5	S2	2B.2
Corynorhinus townsendii Townsend's big-eared bat	AMACC08010	None	None	G4	S2	SSC
Coturnicops noveboracensis yellow rail	ABNME01010	None	None	G4	S2	SSC
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Entosphenus tridentatus Pacific lamprey	AFBAA02100	None	None	G4	S3	SSC
Epilobium oreganum Oregon fireweed	PDONA060P0	None	None	G2	S2	1B.2
Erethizon dorsatum North American porcupine	AMAFJ01010	None	None	G5	S3	
Erythronium oregonum giant fawn lily	PMLIL0U0C0	None	None	G5	S2	2B.2
Erythronium revolutum coast fawn lily	PMLIL0U0F0	None	None	G4G5	S3	2B.2
Eucyclogobius newberryi tidewater goby	AFCQN04010	Endangered	None	G3	S3	SSC
Falco peregrinus anatum American peregrine falcon	ABNKD06071	Delisted	Delisted	G4T4	S3S4	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Fissidens pauperculus minute pocket moss	NBMUS2W0U0	None	None	G3?	S2	1B.2
Fratercula cirrhata tufted puffin	ABNNN12010	None	None	G5	S1S2	SSC
Gilia capitata ssp. pacifica Pacific gilia	PDPLM040B6	None	None	G5T3	S3	1B.2
Gilia millefoliata dark-eyed gilia	PDPLM04130	None	None	G2	S2	1B.2
Glyceria grandis American manna grass	PMPOA2Y080	None	None	G5	S3	2B.3
Haliaeetus leucocephalus bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
Hydrobates furcatus fork-tailed storm-petrel	ABNDC04010	None	None	G5	S1	SSC
Iliamna latibracteata California globe mallow	PDMAL0K040	None	None	G2G3	S2	1B.2
Lampetra richardsoni western brook lamprey	AFBAA02180	None	None	G4G5	S3S4	SSC
Lathyrus japonicus seaside pea	PDFAB250C0	None	None	G5	S2	2B.1
Layia carnosa beach layia	PDAST5N010	Threatened	Endangered	G2	S2	1B.1
Lilium occidentale western lily	PMLIL1A0G0	Endangered	Endangered	G1G2	S1	1B.1
Lycopodium clavatum running-pine	PPLYC01080	None	None	G5	S3	4.1
Margaritifera falcata western pearlshell	IMBIV27020	None	None	G3G4	S1S2	
Microseris borealis northern microseris	PDAST6E030	None	None	G5	S1	2B.1
Mitellastra caulescens leafy-stemmed mitrewort	PDSAX0N020	None	None	G5	S4	4.2
Monotropa uniflora ghost-pipe	PDMON03030	None	None	G5	S2	2B.2
Montia howellii Howell's montia	PDPOR05070	None	None	G3G4	S2	2B.2
Myotis evotis long-eared myotis	AMACC01070	None	None	G5	S3	
Nannopterum auritum double-crested cormorant	ABNFD01020	None	None	G5	S4	WL
Northern Coastal Salt Marsh Northern Coastal Salt Marsh	CTT52110CA	None	None	G3	S3.2	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Nycticorax nycticorax black-crowned night heron	ABNGA11010	None	None	G5	S4	
Oenothera wolfii Wolf's evening-primrose	PDONA0C1K0	None	None	G2	S1	1B.1
Oncorhynchus clarkii clarkii coast cutthroat trout	AFCHA0208A	None	None	G5T4	S3	SSC
Oncorhynchus kisutch pop. 2 coho salmon - southern Oregon / northern California ESU	AFCHA02032	Threatened	Threatened	G5T2Q	S2	
Oncorhynchus mykiss irideus pop. 48 steelhead - northern California DPS summer-run	AFCHA0213P	Threatened	Endangered	G5T2Q	S2	
Oncorhynchus mykiss irideus pop. 49 steelhead - northern California DPS winter-run	AFCHA0213Q	Threatened	None	G5T3Q	S3	SSC
Packera bolanderi var. bolanderi seacoast ragwort	PDAST8H0H1	None	None	G4T4	S2S3	2B.2
Pandion haliaetus osprey	ABNKC01010	None	None	G5	S4	WL
Pekania pennanti Fisher	AMAJF01020	None	None	G5	S2S3	SSC
Piperia candida white-flowered rein orchid	PMORC1X050	None	None	G3?	S3	1B.2
Plethodon elongatus Del Norte salamander	AAAAD12050	None	None	G4	S3	WL
Rana aurora northern red-legged frog	AAABH01021	None	None	G4	S3	SSC
Rana boylii pop. 1 foothill yellow-legged frog - north coast DPS	AAABH01051	None	None	G3T4	S4	SSC
Rhyacotriton variegatus southern torrent salamander	AAAAJ01020	None	None	G3?	S2S3	SSC
Riparia riparia bank swallow	ABPAU08010	None	Threatened	G5	S3	
Sanguisorba officinalis great burnet	PDROS1L060	None	None	G5?	S2	2B.2
Sanicula tracyi Tracy's sanicle	PDAPI1Z0K0	None	None	G4	S4	4.2
Scaphinotus behrensi Behrens' snail-eating beetle	IICOL4L070	None	None	G2G4	S2S4	
Sidalcea malachroides maple-leaved checkerbloom	PDMAL110E0	None	None	G3	S3	4.2
Sidalcea malviflora ssp. patula Siskiyou checkerbloom	PDMAL110F9	None	None	G4G5T2	S2	1B.2
Sidalcea oregana ssp. eximia coast checkerbloom	PDMAL110K9	None	None	G5T1	S1	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Spergularia canadensis var. occidentalis western sand-spurrey	PDCAR0W032	None	None	G5T4	S1	2B.1
Spirinchus thaleichthys longfin smelt	AFCHB03010	None	Threatened	G5	S1	
Sulcaria spiralifera twisted horsehair lichen	NLT0042560	None	None	G3G4	S2	1B.2
Thaleichthys pacificus eulachon	AFCHB04010	Threatened	None	G5	S1	SSC
Thermopsis robusta robust false lupine	PDFAB3Z0D0	None	None	G2	S2	1B.2
Trichodon cylindricus cylindrical trichodon	NBMUS7N020	None	None	G4G5	S2	2B.2
Usnea longissima Methuselah's beard lichen	NLLEC5P420	None	None	G5	S4	4.2
Viola palustris alpine marsh violet	PDVIO041G0	None	None	G5	S1S2	2B.2

Record Count: 90

Orleans

CNPS Rare Plant Inventory

Search Results

62 matches found. Click on scientific name for details

Search Criteria: 9-Quad include [**4112345:4112335:4112334:4112346:4112336:4112344:4112324:4112325:4112326**]

▲ SCIENTIFIC NAME	COMMON NAME	PHOTO	FAMILY	LIFEFORM	BLOOMING PERIOD	STATE RANK	CA RARE PLANT RANK
Allium siskiyouense	Siskiyou onion	 John Doyen 2019	Alliaceae	perennial bulbiferous herb	(Apr)May-Jul	S4	4.3
Anomobryum julaceum	slender silver moss	 © 2013 Scot Loring	Bryaceae	moss		S2	4.2
Antennaria suffrutescens	evergreen everlasting	 ©1995 Saint Mary's College of California	Asteraceae	perennial stoloniferous herb	Jan-Jul	S3	4.3
Arabis modesta	modest rockcress	 ©2014 Scot Loring	Brassicaceae	perennial herb	Mar-Jul	S3	4.3

Arabis oregana	Oregon rockcress	 ©2021 Scot Loring	Brassicaceae	perennial herb	May	S3	4.3
Arnica cernua	serpentine arnica	 © 2021 Scot Loring	Asteraceae	perennial rhizomatous herb	Apr-Jul	S4	4.3
Arnica spathulata	Klamath arnica	 ©2007 Keir Morse	Asteraceae	perennial rhizomatous herb	May-Aug	S3	4.3
Astragalus umbraticus	Bald Mountain milk-vetch	 ©2013 Scot Loring	Fabaceae	perennial herb	May-Aug	S2	2B.2
Buxbaumia viridis	green shield-moss	 © 2021 Scot Loring	Buxbaumiaceae	moss		S2	2B.2
Carex halliana	Oregon sedge	 ©2010 Keir Morse	Cyperaceae	perennial rhizomatous herb	(May)Jul-Sep	S2	2B.3
Carex hystericina	porcupine sedge	 ©2014 Robert E. Preston, Ph.D.	Cyperaceae	perennial rhizomatous herb	May-Jun	S2	2B.1

Carex praticola	northern meadow sedge	 ©2013 Scot Loring	Cyperaceae	perennial herb	May-Jul	S2	2B.2
Claytonia obovata	Rydberg's spring beauty	 ©2015 John Doyen	Montiaceae	perennial herb	(Mar-Apr)May-Jun(Jul)	S3	4.3
Collomia tracyi	Tracy's collomia	 ©2018 Julie Kierstead Nelson	Polemoniaceae	annual herb	Jun-Jul	S4	4.3
Coptis laciniata	Oregon goldthread	 © 2021 Scot Loring	Ranunculaceae	perennial rhizomatous herb	(Feb)Mar-May(Sep-Nov)	S3?	4.2
Cornus unalaschkensis	bunchberry	 © 2021 Scot Loring	Cornaceae	perennial rhizomatous herb	May-Jul	S2	2B.2
Cypripedium fasciculatum	clustered lady's-slipper	 © 2013 Scot Loring	Orchidaceae	perennial rhizomatous herb	Mar-Aug	S4	4.2
Cypripedium montanum	mountain lady's-slipper	 ©2021 Scot Loring	Orchidaceae	perennial rhizomatous herb	Mar-Aug	S4	4.2

Dicentra formosa ssp. *oregana*	Oregon bleeding heart	 ©2008 Keir Morse	Papaveraceae	perennial herb	Apr-May	S3	4.2
Draba howellii	Howell's draba	 © 2013 Dana York	Brassicaceae	perennial herb	Jun-Jul	S4	4.3
Epilobium oreganum	Oregon fireweed	 © 2015 Steve Matson	Onagraceae	perennial herb	Jun-Sep	S2	1B.2
Eriogonum ternatum	ternate buckwheat	 ©2017 Dana York	Polygonaceae	perennial herb	Jun-Aug	S4	4.3
Eriogonum umbellatum var. *humistratum*	Mt. Eddy buckwheat	 ©2001 Julie Kierstead Nelson	Polygonaceae	perennial herb	May-Oct	S4	4.3
Erythronium citrinum var. *citrinum*	lemon-colored fawn lily	 ©2008 Keir Morse	Liliaceae	perennial bulbiferous herb	Mar-May	S3	4.3
Erythronium oregonum	giant fawn lily	 ©2021 Scot Loring	Liliaceae	perennial herb	Mar-Jun(Jul)	S2	2B.2

Erythronium revolutum	coast fawn lily	 ©2007 Steve Matson	Liliaceae	perennial bulbiferous herb	Mar-Jul(Aug)	S3	2B.2
Gentiana plurisetosa	Klamath gentian	 ©2011 Kjirsten Wayman	Gentianaceae	perennial herb	Jul-Sep	S2	1B.3
Gilia capitata ssp. *pacifica*	Pacific gilia	 © 2016 Steve Matson	Polemoniaceae	annual herb	Apr-Aug	S2	1B.2
Horkelia howellii	Howell's horkelia	 © 2016 Keir Morse	Rosaceae	perennial herb	Jun-Aug	S3	4.3
Iliamna latibracteata	California globe mallow	 ©2013 Scot Loring	Malvaceae	perennial herb	Jun-Aug	S2	1B.2
Iris tenax ssp. *klamathensis*	Orleans iris	 © 2012 Dana York	Iridaceae	perennial rhizomatous herb	Apr-May	S4	4.3
Juncus dudleyi	Dudley's rush	 © 2017 Dean Wm. Taylor	Juncaceae	perennial herb	Jul-Aug	S1	2B.3

Kopsiopsis hookeri	small groundcone	 ©2016 Vernon Smith	Orobanchaceae	perennial rhizomatous herb (parasitic)	Apr-Aug	S1S2	2B.3
Lewisia cotyledon var. *heckneri*	Heckner's lewisia	 ©2010 Neal Kramer	Montiaceae	perennial herb	(Apr)May-Jul	S3	1B.2
Lewisia cotyledon var. *howellii*	Howell's lewisia	 © 2021 Scot Loring	Montiaceae	perennial herb	Apr-Jul	S3	3.2
Lewisia kelloggii ssp. *hutchisonii*	Hutchison's lewisia	 Dean Wm. Taylor 2006	Montiaceae	perennial herb	(Apr)May-Aug	S3	3.2
Lilium bolanderi	Bolander's lily	 © 2008 Keir Morse	Liliaceae	perennial bulbiferous herb	Jun-Jul	S3S4	4.2
Lilium pardalinum ssp. *vollmeri*	Vollmer's lily	 © 2008 Keir Morse	Liliaceae	perennial bulbiferous herb	(Jun)Jul-Aug	S3	4.3

Lilium rubescens	redwood lily	 Gerald and Buff Corsi © 2022 California Academy of Sciences	Liliaceae	perennial bulbiferous herb	(Mar)Apr-Aug(Sep)	S3	4.2
Listera cordata	heart-leaved twayblade	 ©2013 Dr. Amadej Trnkoczy 0000 0000 0513 2468	Orchidaceae	perennial herb	Feb-Jul	S4	4.2
Lomatium martindalei	Coast Range lomatium	 ©2014 Barry Rice	Apiaceae	perennial herb	May-Jun(Aug)	S2	2B.3
Lupinus tracyi	Tracy's lupine	 ©2003 Norman Jensen	Fabaceae	perennial herb	(May)Jun-Jul	S3	4.3
Mielichhoferia elongata	elongate copper moss	 © 2012 John Game	Mielichhoferiaceae	moss		S3S4	4.3

Montia howellii	Howell's montia	 © 2004 Dean Wm. Taylor	Montiaceae	annual herb	(Feb)Mar-May	S2	2B.2
Oenothera wolfii	Wolf's evening-primrose	 ©2017 Dana York	Onagraceae	perennial herb	May-Oct	S1	1B.1
Piperia candida	white-flowered rein orchid	 ©2016 Barry Rice	Orchidaceae	perennial herb	(Mar-Apr)May-Sep	S3	1B.2
Pityopus californicus	California pinefoot	 ©2009 Barry Rice	Ericaceae	perennial herb (achlorophyllous)	(Mar-Apr)May-Aug	S4	4.2
Platismatia lacunosa	crinkled rag lichen	 © 2014 Chris Wagner	Parmeliaceae	foliose lichen (epiphytic)		S2?	2B.3
Pleuropogon refractus	nodding semaphore grass	 ©2004 Dean Wm. Taylor	Poaceae	perennial rhizomatous herb	(Feb-Mar)Apr-Aug	S4	4.2
Prosartes parvifolia	Siskiyou bells	 ©2010 Kjirsten Wayman	Liliaceae	perennial bulbiferous herb	May-Sep	S2	1B.2

Ptilidium californicum	Pacific fuzzwort	 © 2021 Scot Loring	Ptilidiaceae	liverwort	May-Aug	S3S4	4.3
Rorippa columbiae	Columbia yellow cress	 ©2013 Justy Leppert	Brassicaceae	perennial rhizomatous herb	May-Sep	S2	1B.2
Schoenoplectus subterminalis	water bulrush	 Dean Wm. Taylor (1996)	Cyperaceae	perennial rhizomatous herb (aquatic)	Jun-Aug(Sep)	S3	2B.3
Sedum laxum ssp. *heckneri*	Heckner's stonecrop	 © 2010 Susan Erwin	Crassulaceae	perennial herb	Jun-Jul	S4	4.3
Sidalcea elegans	Del Norte checkerbloom	No Photo Available	Malvaceae	perennial rhizomatous herb	May-Jul	S2?	3.3
Sidalcea oregana ssp. *eximia*	coast checkerbloom	No Photo Available	Malvaceae	perennial herb	Jun-Aug	S1	1B.2
Silene hookeri	Hooker's catchfly	 ©2014 John Doyen	Caryophyllaceae	perennial herb	(Mar)May-Jul	S2	2B.2
Silene marmorensis	Marble Mountain campion	 ©2021 Dana York	Caryophyllaceae	perennial herb	Jun-Aug	S2	1B.2

Sulcaria badia	grooved beard lichen	 © 2013 Scot Loring	Parmeliaceae	fruticose lichen (epiphytic)		S3	4.2
Tauschia glauca	glaucous tauschia	 ©2022 Sierra Pacific Industries	Apiaceae	perennial herb	Apr-Jun	S4	4.3
Thermopsis robusta	robust false lupine	 ©2018 Hayley Ross	Fabaceae	perennial rhizomatous herb	May-Jul	S2	1B.2
Veratrum insolitum	Siskiyou false-hellebore	 ©2008 Keir Morse	Melanthiaceae	perennial herb	Jun-Aug	S4	4.3

Showing 1 to 62 of 62 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2024. Rare Plant Inventory (online edition, v9.5). Website https://www.rareplants.cnps.org [accessed 25 April 2024].

Buckhorn

CALIFORNIA NATIVE PLANT SOCIETY

CNPS Rare Plant Inventory

Search Results

15 matches found. Click on scientific name for details

Search Criteria: , 9-Quad include [**4012388**]

▲ 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
Chrysosplenium glechomifolium	Pacific golden saxifrage	Saxifragaceae	perennial herb	Feb-Jun	None	None	G5?	S3	4.3		2015-10-15	 © 2021 Scot Loring
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
Erythronium oregonum	giant fawn lily	Liliaceae	perennial herb	Mar-Jun(Jul)	None	None	G5	S2	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
Iliamna latibracteata	California globe mallow	Malvaceae	perennial herb	Jun-Aug	None	None	G2G3	S2	1B.2		1974-01-01	 ©2013 Scot Loring
Lathyrus glandulosus	sticky pea	Fabaceae	perennial rhizomatous herb	Apr-Jun	None	None	G3	S3	4.3	Yes	1988-01-01	 2015 Barrett Jeffery

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
Lycopodium clavatum	running-pine	Lycopodiaceae	perennial rhizomatous herb	Jun-Aug(Sep)	None	None	G5	S3	4.1	1974-01-01	 © 2021 Scot Loring
Mitellastra caulescens	leafy-stemmed mitrewort	Saxifragaceae	perennial rhizomatous herb	(Mar)Apr-Oct	None	None	G5	S4	4.2	2001-01-01	 © 2014 Dana York
Pityopus californicus	California pinefoot	Ericaceae	perennial herb (achlorophyllous)	(Mar-Apr)May-Aug	None	None	G4G5	S4	4.2	1974-01-01	 ©2009 Barry Rice
Pleuropogon refractus	nodding semaphore grass	Poaceae	perennial rhizomatous herb	(Feb-Mar)Apr-Aug	None	None	G4	S4	4.2	1974-01-01	 ©2004 Dean Wm. Taylor
Ribes laxiflorum	trailing black currant	Grossulariaceae	perennial deciduous shrub	Mar-Jul(Aug)	None	None	G5?	S3	4.3	1974-01-01	 ©2010 Dana York
Sidalcea malachroides	maple-leaved checkerbloom	Malvaceae	perennial herb	(Mar)Apr-Aug	None	None	G3	S3	4.2	1994-01-01	 ©2005 Dean Wm. Taylor
Tiarella trifoliata var. *trifoliata*	trifoliate laceflower	Saxifragaceae	perennial rhizomatous herb	(May)Jun-Aug	None	None	G5T5	S2S3	3.2	1980-01-01	 © 2021 Scot Loring

Usnea longissima	Methuselah's beard lichen	Parmeliaceae	fruticose lichen (epiphytic)	None	None	G5	S4	4.2	2014-03-01

© 2021 Scot Loring

Showing 1 to 15 of 15 entries

Go to top

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2025. Rare Plant Inventory (online edition, v9.5.1). Website https://www.rareplants.cnps.org [accessed 30 April 2025].

}