ALTON SHOULDER WIDENING PROJECT

HUMBOLDT COUNTY, CALIFORNIA
DISTRICT 1 – HUM – 36 (Post Miles 0.1 to 1.65)
01-0E010 / 013000090

Initial Study with Proposed Mitigated Negative Declaration

Prepared by the
State of California Department of Transportation

Caltrans®

March 2020

General Information about this Document

What's in this document?

The California Department of Transportation (Caltrans) has prepared this Initial Study with proposed Mitigated Negative Declaration (IS/ND) which examines the potential environmental effects of a proposed project on State Route 36 in Alton, 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.

What should you do?

- Please read this document.
- Additional copies of this document and related technical studies are available for review at the following locations:
    - Caltrans District 3 Office at 703 B Street, Marysville, CA 95901
    - Caltrans District 1 Office at 1656 Union St, Eureka, CA, 95501
- This document is also available online at the following address:
  https://dot.ca.gov/caltrans-near-me/district-3/d3-programs/d3-environmental-planning/d3-environmental-docs
- We'd like to hear what you think. If you have any comments about the proposed project, please send your written comments to Caltrans by the deadline.
- Please send comments via U.S. mail to:

  California Department of Transportation
  Attention: Derek Salinas
  Environmental Management RM-1 Branch
  703 B Street
  Marysville, CA 95901
- Send comments via e-mail to: derek.salinas@dot.ca.gov
- Be sure to send comments by the deadline: May 06th, 2020

What happens after this?

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

For individuals with sensory disabilities, this document is available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please write to or call Caltrans, Attention: Bonnie Kuhn, Public Information Officer, PO Box 3700, Eureka, CA 95502-3700; (707) 441-4678 Voice, or use the California Relay Service TTY number, 711 or 1-800-735-2929.

ALTON SHOULDER WIDENING PROJECT

Widen Shoulders on State Route 36 in Humboldt County,
from post miles 0.01 to 1.65 in Alton.

INITIAL STUDY WITH PROPOSED MITIGATED NEGATIVE DECLARATION

Submitted Pursuant to: Division 13, California Public Resources Code

THE STATE OF CALIFORNIA

Department of Transportation

3/26/20
Date of Approval

Wesley Stroud
Wesley Stroud, Office Chief - Redding
North Region Environmental Management
California Department of Transportation
CEQA Lead Agency

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

Derek Salinas, North Region Environmental-District 3
703 B Street, Marysville, CA 95901
(530) 741-4550
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Proposed Mitigated Negative Declaration
Pursuant to: Division 13, California Public Resources Code

SCH Number: Pending

Project Description

The California Department of Transportation (Caltrans) proposes to reduce run-off-road collisions by widening State Route (SR) 36 in Humboldt County near Alton between post miles (PM) 0.1 to 1.65. This collision severity reduction project will construct two 12 ft. wide lanes and 8 ft. shoulders (5 ft. paved and 3 ft. unpaved), install center-line rumble strips and place rubberized hot mix asphalt (gap graded) throughout. Also, the project includes a grade reduction on two short vertical curves to improve sight distance.

Determination

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

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

The project would have no effect with regard to aesthetics, agriculture and forest resources, energy, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, tribal cultural resources, and wildfire.

The project would have less than significant impacts with regard to air quality, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, and utilities and service systems.

With mitigation measures incorporated, the project would have less than significant impacts with regard to biological resources.

Table of Contents

List of Tables and Figures

Page

Page

1 Chapter 1. Proposed Project

1.1 Project History

The Department of Transportation (Caltrans) is the lead agency under the California Environmental Quality Act (CEQA). Caltrans proposes to reduce run-off-road collisions by widening State Route 36 near the town of Alton. Figures 1 and 2 indicate the project location and vicinity maps.

The project was initially designed based on providing two 12 ft. lanes and two 8 ft. paved shoulders, but was rejected due to lack of traffic calming, difficult construction, lengthy environmental process and its high costs. That proposal included widening a portion of the road on the north side of Route 36 with cuts into the existing hillside above the road which would have resulted in substantial excavation of unstable embankment slopes. In December of 2017, Caltrans' traffic safety branch recommended to reduce the shoulder width to 5 ft. instead of 8 ft. due to traffic calming effects of narrower shoulder. District 1 management agreed to this shoulder width reduction and design proceeded ahead with providing two 12 ft. lanes, and two 8 ft. shoulders (5 ft. paved and 3 ft. unpaved) for this project as the preferred alternative.

1.2 Project Description

Caltrans proposes to reduce run-off-road collisions by widening State Route 36 (SR 36) in Humboldt County near Alton between post miles (PM) 0.1 to 1.65. This collision severity reduction project will construct two 12 ft. wide lanes and 8 ft. shoulders (5 ft. paved and 3 ft. unpaved), install center-line rumble strips and place rubberized hot mix asphalt (gap graded) throughout. The project includes a grade reduction on two short vertical curves to improve sight distance as well.

Project Objectives

The purpose of this project is to reduce the frequency and severity of run-off-road collisions by providing additional recovery room in the form of paved shoulders and improving the horizontal and vertical sight distances.

Within the project extent, there have been 19 collisions in the most recent 5-year period, 11 of which were "run-off-road" type collisions. The existing roadway consists of a paved width of 22 ft. standard lane and shoulder widths are 12 ft. and 8 ft., respectively. Areas beyond the paved roadway provide little to no recovery room at most locations. Vertical curves at PM 0.52 and PM 1.32 reduce stopping site distance to an estimated 330 ft. (the standard is 500 ft. for 55 MPH).

The SR 36 Route Concept Report (RCR) has a management strategy to maintain and rehabilitate SR 36 between United States (US)101 and Bridgeville as necessary. The RCR indicates that one segment of SR 36 (PM 0.0 to PM 11.5,

which includes the project limits) has accident rates greater than 1.5 times the statewide average, and that spot location safety improvements will be considered as necessary.

Proposed Project

Caltrans proposes to reduce run-off-road collisions by widening SR 36 in Humboldt County near the town of Alton. The project description includes a discussion of the existing facility, preferred alternative, construction methodology, and other alternatives that were considered but have been eliminated from further discussion.

Existing Facility

The existing facility is on SR 36, a west-east rural, 2-lane conventional highway. The project extends from the east side of the SR 36 and US 101 separation to River Bar Road, about 1.2 miles west of the community of Hydesville. The roadway has an existing total paved width of approximately 22 ft. through most of the project. Immediately east of the project, existing shoulders are 4 ft. wide. The highway is elevated slightly and runs along the south base of a steep hill adjacent to the Van Duzen River. The roadway and most adjacent land (except Alton) are outside of the 100-year floodplain. Existing cut slopes, where present, are limited to about 4 ft. in height. Roadway pavement is in reasonably good condition with minor cracking and consists of a hot applied rubberized chip seal coat placed over asphalt concrete and aggregate base. Ditches on the north side of the road convey water to 14 existing culverts that discharge to larger ditches on the road's south side. At the east end of the project, a bridge spans Wolverton Gulch Creek. The right-of-way, within the project limits, is mostly prescriptive with 23 adjacent parcels, 15 of which are on the south side of the road. Utility poles, including overhead high voltage lines, follow the roadway over the entire project limits with the majority located on the south side of the highway.

Introduction to Project Alternatives

There is one build alternative and one "No Build" alternative for this project.

Alternative 1: Build Alternative

This alternative proposes to reduce run-off-road collisions by widening SR 36 and providing a highway paved section consisting of two 12 ft. lanes and 8 ft. shoulders (5 ft. paved and 3 ft. unpaved). The project will seal existing roadway cracks wider than 0.25 in. and place 0.10 ft. rubberized hot mix asphalt (open graded) overlay throughout the project, install shoulder backing, and ground-in center-line rumble strips.

Widening for increased shoulders will take place on the south side of the road to avoid substantial embankment excavation on the adjacent north hillside (westbound). The proposed realignment will improve existing curves to radii ranging from 1,350 to11,000 ft. The highway profile will be lowered on the crests of two

vertical curves (PM 0.53 and PM 1.32) to increase stopping sight distance to current design standards. An estimated 12,000 cubic yards of imported fill will be needed for the expanded roadway prism.

Right-side fill slopes of 4:1 will be constructed, as well as new drainage ditches/channels along the south side with various widths and slopes. Existing ditches on the northside will be cleaned out. The following is a detailed list of culvert work to be performed on the project:

Location 1: PM 0.14

- Extend the existing 24 in. corrugated metal pipe (CMP) an additional 7 ft. to 61 ft.

Location 2: PM 0.19

- Remove existing 18 in. reinforced concrete pipe (RCP) and install a new 24 in. culvert with a 6 ft. extension to 73 ft.

Location 3: PM 0.23

- Remove existing 24 in. RCP and install a new 30 in. culvert.

Location 4: PM 0.27

- Abandon existing 36 in. RCP and install a new 36 in. culvert under decomissioned rail road tracks to convey the new ditch flow on the south side, near the end of McDermott street.

Location 5: PM 0.30

- Remove existing 24 in. culvert and install a new 30 in. culvert with a 17 ft. extension to 60 ft.

Location 6: PM 0.44

- Extend the existing 24 in. culvert an additional 31 ft. to 67 ft.

Location 7: PM 0.57

- Extend the existing 24 in. culvert an additional 20 ft. to 61 ft.

Location 8: PM 0.67

- Extend the existing 24 in. culvert an additional 18 ft. to 56 ft.

Location 9: PM 0.73

- Extend the existing 18 in. corrogated steel pipe (CSP) an additional 24 ft. to 61 ft.

Location 10: PM 0.86

- Extend the existing 24 in. culvert an additional 22 ft. to 65 ft.

Location 11: PM 1.05

- Remove existing 24 in. culvert and install a new 30 in. culvert with a 19 ft. extension to 59 ft.

Location 12: PM 1.37

- Remove existing 24 in. RCP and install a new 24 in. culvert with a 21 ft. extension to 57 ft.

Location 13: PM 1.46

- Remove existing 18 in. RCP and install a new 24 in. culvert with a 25 ft. extension to 64 ft.

Location 14: PM 1.56

- Remove existing 18 in. RCP and install a new 24 in. culvert with a 20 ft. extension to 57 ft.

Drainage inlets (DIs) will be installed for all existing and new culverts, except the culvert at location 4. Three existing driveway culverts will be replaced with two 18 in. and two 30 in. culverts. In addition, two new driveway culverts, one 24 in. and one 36 in., will be installed.

The bridge located at the Wolverton Gulch (Bridge 4-87) will not be modified, although the metal beam guard rail at its outlet side will be upgraded to a midwest guardrail system and relocated further from the edge of pavement to accommodate shoulder widening conforms.

Right-of-way (R/W) will be acquired from 15 parcels on the south side and a R/W line will be established. Prescriptive R/W line on the north side will be perfected to some unknown distance from edge of pavement for future maintenance of the existing ditch and proposed DIs. New fence will be constructed to replace existing fence impacted by widening on the south-side (eastbound) of SR 36. In addition, a new fence may be constructed on the north side of the highway on surveyed true R/W lines, as the existing fence is in poor repair, is intertwined with vegetation and makes maintenance difficult. Five temporary construction easements are anticipated. One-way traffic control will be needed during construction, directing traffic on compacted gravel is likely and use of a temporary traffic signal system is possible.

Construction Methodology

Construction Staging and Access Roads

This project will be constructed in two stages. The first stage of construction will be conducted within the eastbound lane of SR 36. Construction activities include: roadway widening, driveway approach reconstruction, utility poles/equipment relocation, stormwater ditch reconstruction, and culvert extension/replacement.

The second stage of construction will be conducted within the westbound lane. Construction activities include: installation of drainage inlets, culvert replacements, driveway approaches, pavement overlays and finishing with placement of traffic striping and rumble strips.

Six staging areas would be required for the project for construction activity along the eastbound side of SR 36. Three temporary construction easements (TCE) would be required for two staging areas and one access road. The remaining three staging areas are all within Caltrans' R/W.

Drainage

Construction would require new drainage facilities such as culverts and reconstruction of the south-side stormwater drainage ditch, due to shoulder widening. Culverts would be relocated, extended, or removed based on the recommendations of Caltrans' hydraulics engineers and the Caltrans Highway Design Manual. Culverts to be impacted can be found in the '*Build Alternative*' section above. The design of the new stormwater facilities would be finalized during the design phase of the project.

Traffic Management

One-way reversing traffic control lane closure and one complete ramp closure are concurrently allowed within the project limits. Advance warning signs advising the hours of closure would be required seven days prior to the ramp closure. During culvert replacements, public traffic may be stopped in both directions for periods not to exceed 10 minutes. The maximum delay from intermittent closures would be 20 minutes. A minimum of 11 ft. of paved roadway must be open for use by public traffic.

The project would take steps to minimize traffic impacts to the local area. Any emergency service agency whose ability to respond to incidents may be affected by traffic control would be notified prior to any closure. The local busing system would be notified to minimize impacts to their schedule. The Resident Engineer would provide information to residents and businesses before and during project work that could have a negative impact on commerce and travel. Bicyclists would be accommodated through the work zone, and during reversing traffic control, bicyclists would be instructed to join the vehicle queue.

Utilities

An estimated 42 utility poles would be relocated to the new R/W line, either for clear recovery distance, or due to interference with the new construction limits. Facilities

requiring relocation are aerial Pacific Gas and Electric (PG&E) electric (42 poles), aerial AT&T phone, and aerial cable television. Underground PG&E gas lines cross SR 36 in the vicinity of Alton and may need to be extended or relocated.

Construction Equipment

Equipment anticipated to be used throughout construction includes the following:

- Excavation of existing material would be accomplished using an excavator. Excavated material would be temporarily removed via dump trucks. The soil would likely be returned to be repurposed as part of the structural backfill.

- The backfill and grading operation would require the use of dump trucks to bring material in, a loader or excavator to help position the material, and a rolling compactor to compact the material.

- A paving machine would be brought in along with dump trucks carrying asphalt to place the approach asphalt and repave SR 36.

Right-of-Way Impacts

There are 23 parcels adjacent to the project and a total right of way acquisition of 5.84 acres from 15 parcels will be required. Two acres for TCEs are identified.

Complete Streets

Caltrans' Complete Streets Directive promotes a transportation system that safely accommodates bicyclists, pedestrians and transit users. In the project vicinity, SR 36 serves a variety of traffic including local traffic, commuters, interregional freight, and logging vehicles. All modes of transportation have been included in the proposed design to the extent feasible. The proposed project will increase shoulder width to 5 ft. paved and 3 ft. unpaved, to improve pedestrian and bicycle access, improving the functionality of the roadway for motorists, bicyclists, and pedestrians. The increased shoulder width would also provide greater separation from vehicular traffic for both bicyclists and pedestrians; increasing safety for all users.

The proposed improvements account for the needs of everyone using the road, and the project funding, planning, design, maintenance, and operations are aligned with the goals of the Caltrans Complete Streets policy.

General Plan Description, Zoning, and Surrounding Land Uses

The project is located near the town of Fortuna and in the old town of Alton, a census designated area in Humboldt County. Land use and development is governed by the Fortuna General Plan (FGP) and the Humboldt County General Plan, which are comprehensive and long-range planning documents that represents

the vision and foresight of the people who live and work in the City of Fortuna area. Land use near the proposed project is designated in the FGP as agricultural, industrial, commercial, and rural residential. According to Humboldt County zoning maps, land near the proposed project is zoned as agriculture exclusive, neighborhood/industrial commercial, heavy/limited industrial, and rural & one-family residential.

Throughout the project area, SR 36 is classified as a two-lane conventional highway. In Humboldt County, SR 36 is an east-west state highway that extends from the US 101 interchange in the old town of Alton to the Trinity County border and beyond parallel to the Van Duzen River.

The project elevation is approximately 66 ft. above mean sea level. The climate type, according to the Köppen Climate Classification, is Mediterranean which is typified by wet, mild winters and hot, dry summers.

Habitat surrounding the proposed project is characterized by agricultural lands with developed roadways, non-vegetated staging areas, streams, and riparian habitat.

1.3 Project Maps

Figures 1 and 2 depict the project location and vicinity maps. Project layouts can be found in Appendix C.

Figure 1. Project Location Map

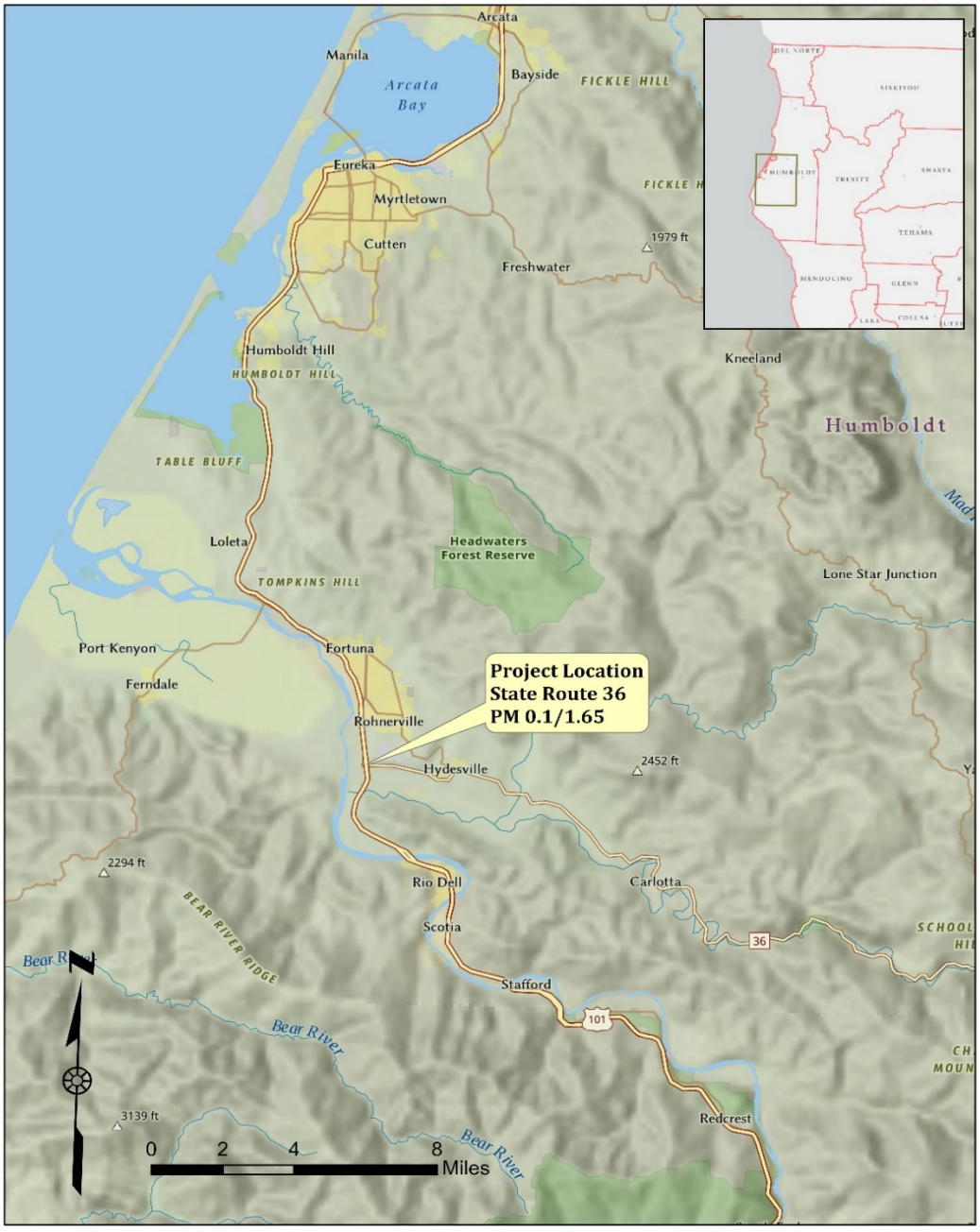

Figure 2. Project Vicinity Map

1.4 Permits and Approvals Needed

The project would require the following permits, licenses, agreements, and certifications, as listed in Table 1.

Table 1. Agency Approvals

Agency	Permit/Approval	Status
California Department of Fish and Wildlife (CDFW)	1602 Lake and Streambed Alteration Agreement	Would be completed in the next project phase
North Coast Regional Water Quality Control Board (RWQCB)	Section 401 Water Quality Certification	Would be completed in the next project phase
U.S. Army Corps of Engineers (USACE)	Section 404 Nationwide 14	Would be completed in the next project phase

1.5 Standard Measures and Best Management Practices

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 SR 36 throughout the construction period.

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

Traffic and Transportation

TT-1: Pedestrian and bicycle access would be maintained during construction.

TT-2: The Contractor would be required to reduce any access delays to driveways or public roadways within or near the work zones.

TT-3: A Traffic Management Plan (TMP) would be applied to project.

Visual Aesthetics

VA-1: Grading areas that were previously vegetated would be re-vegetated with appropriate native vegetation.

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

VA-3: The removal of established trees and vegetation would be minimized and avoided where feasible. Environmentally sensitive areas will have Temporary High Visibility Fencing (THVF) installed to demarcate areas where vegetation is being preserved and tree root systems protected.

Cultural Resources

CR-1: If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find in consultation with the State Historic Preservation Officer.

CR-2: If human remains were discovered, State Health and Safety Code § 7050.5 states that further disturbances and activities would cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to CA Public Resources Code (PRC) § 5097.98, if the remains were thought to be Native American, the coroner would notify the Native American Heritage Commission (NAHC) who would then notify the Most Likely Descendent (MLD).

At this time, the person who discovered the remains would contact the Environmental Senior and professionally qualified staff, so they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC § 5097.98 would be followed as applicable.

Water Quality and Stormwater Runoff

WQ-1: The project would comply with the provisions of the Caltrans Statewide National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit (Order 2012-0011-DWQ) which became effective July 1, 2013, and the NPDES Construction General Permit (Order 2009-0009-DWQ) which became effective July1, 2010.

Before any ground-disturbing activities, the contractor would prepare a Stormwater Pollution Prevention Plan (SWPPP) (per the Construction General Permit Order 2009-0009-DWQ) that includes erosion control measures and construction waste containment measures so that waters of the State are protected during and after project construction.

The SWPPP would identify all potential 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' *Stormwater 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 would be continuously updated to adapt to changing site conditions during the construction phase.

Construction would likely require the following temporary construction site BMPs:

- Any spills or leaks from construction equipment (i.e., fuel, oil, hydraulic fluid, and grease) shall be cleaned up in accordance with applicable local, state, and/or federal regulations.
- Water generated from the dewatering operations would be trucked off-site to an appropriate facility, treated and used on-site for dust control and/or discharged to an infiltration basin or used to irrigate agricultural lands.
- Fiber rolls or silt fences would be installed.
- Existing vegetated areas would be maintained to the maximum extent practicable.
- Clearing, grubbing, and excavation would be limited to specific locations, as delineated on the plans, to maximize the preservation of existing vegetation.
- Vegetation reestablishment or other stabilization measures would be implemented on disturbed soil areas, per the Erosion Control Plans.
- Soil disturbing work would be limited during the rainy season.

WQ-2: The project would incorporate pollution prevention and design measures consistent with the 2016 Caltrans Statewide Stormwater Management Plan to meet Water Quality Objectives. This plan complies with the requirements of the Caltrans Statewide NPDES MS4 Permit (Order 2012-0011-DWQ).

The project design would likely include the following permanent stormwater treatment BMPs:

- Vegetated surfaces would feature native plants and revegetation would use a seed mixture, mulch, tackifier, and fertilizer combination recommended in the Erosion Control Plan prepared for the project.
- Existing roadway drainage systems currently discharge stormwater to receiving waters through bridge deck drains and/or discharge to vegetated slopes adjacent to the highway facility. The current design for stormwater management, post construction, is to perpetuate existing drainage patterns. Stormwater will continue to sheet flow to vegetated slopes providing stormwater treatment in accordance with Caltrans NPDES MS4 Permit.

Hazardous Waste and Material

HW-1: Per Caltrans requirements, the contractor(s) would prepare a project-specific Lead Compliance Plan (per 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 lead-impacted soil.

HW-2: Low levels of aerially deposited lead from the historic use of leaded gasoline exist along roadways throughout California. The project would adhere to Caltrans' Standard Special Provision (SSP) Section 7-1.02K(6)(j)(iii) "Earth Material Containing Lead."

HW-3: Use of Non-Standard Special Provision (NSSP) 14-11.11 DEPARTMENT GENERATED CONTAMINTED SOIL coordinated with NSSP 14-11.05 STOCKPILING & LINER will be required for excavation, transporting and stockpiling of petroleum contaminated soil. A Health and Safety Plan will be required as a contract item.

HW-4: Thermoplastic paint may contain lead of varying concentrations depending upon color, type, and year of manufacture. Traffic stripes would be removed and disposed of in accordance with Caltrans' SSP Section 36-4 "Residue Containing Lead from Paint and Thermoplastic".

HW-6: The demolition of a structure will require a North Coast Unified Air Quality Management District (NCUAQMD) notification to the NCUAQMD. It will be required to use NSSP 14-9.02 NESHAP NOTIFICATION in the specification package.

HW-7: Paint on the structure sampled during the limited survey is considered both a California and Federal (RCRA) hazardous waste based on lead content. The use of NSSP 14-11.17 REMOVAL AND MANAGEMENT OF LEAD PAINT ON UNOCCUPIED STRUCTURES will be required for the demolition of the surveyed structure.

HW-8: Treated Wood Waste may be generated from sign post and guardrail removal/reconstruction. This can be addressed with SSP 14-11.14 TREATED WOOD WASTE management in the construction contract.

Geology and Seismic/Topography

GS-1: The project would be designed to minimize slope failure, settlement, and erosion using recommended construction techniques and BMPS. New slopes would be revegetated to reduce erosion potential.

GS-2: In the unlikely event that fossils were encountered during project excavations, Caltrans Standard Specification 14-7 would be followed. This standard specification states that if unanticipated paleontological resources were discovered,

all work within 60 ft. would stop, the area around the fossil would be protected, and the Resident Engineer would be notified.

Wetlands and Other Waters

WW-1: Impacts to waters and riparian vegetation would be reduced by incorporating the measures identified in the Biological Resources Section.

WW-2: Caltrans would be required to restore wetland and riparian areas temporarily impacted by construction to pre-existing conditions prior to completion of construction.

Threatened and Endangered Species

TS-1: The pre-construction meeting with the contractor would consist of a briefing on environmental permit conditions and requirements relative to each stage of the proposed project, including, but not limited to, work windows, construction site management, and how to identify and report regulated species within the project areas.

Plant Species

PS-1: After all construction materials are removed, the project area would be revegetated. Replanting would be subject to a plant establishment period as defined by project permits, which would require Caltrans to adequately water plants, replace unsuitable plants, and control pests. Caltrans would implement a program of invasive weed control in all areas of soil disturbance caused by construction to improve habitat for native species in and adjacent to disturbed soil areas within the project limits.

PS-2: The contractor would be required to place temporary barrier fencing along the boundaries of all environmentally sensitive areas to avoid impacts to sensitive habitats that occur adjacent to the project footprint.

Animal Species

AS-1: If feasible, removal of vegetation would be conducted in the fall and winter (between October 1 and January 31) after bird fledging and before the initiation of breeding activities. If vegetation removal during the non-nesting season is determined unfeasible, then pre-construction bird nest surveys would be performed to determine the location of nest sites within and adjacent to the project limits. If no active bird nests are found during pre-construction surveys, then vegetation would be removed within five (5) days. Pre-construction surveys would be conducted by a Caltrans biologist or qualified biologist. If active bird nests are found, Caltrans would coordinate with the United States Fish and Wildlife Service (USFWS) regarding appropriate action to comply with the Migratory Bird Treaty Act of 1918, and with the CDFW to comply with provisions of the Fish and Game Code of California. If a lapse

in project related work of fifteen (15) days or longer occurs, another survey and, if required, coordination with USFWS and CDFW would occur before work can be reinitiated.

AS-2: Partially constructed and unoccupied nests within the construction area would be removed and disposed of on a regular basis throughout the breeding season (February 1 to October 30) to prevent their occupation. Nest removal would be repeated weekly under guidance of a qualified biologist to ensure nests are inactive prior to removal.

AS-3: Pre-construction surveys for active raptor nests within one-fourth mile of the project area would be conducted by a qualified biologist within 15 days prior to the initiation of construction activities. Areas to be surveyed would be limited to those areas subject to increased disturbance because of 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 were 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.

Invasive Species

The standard measures described in the Plant Species PS-1 section above to restore the project site post-construction are also appropriate for the control of invasive species.

1.6 Discussion of the NEPA Categorical Exclusion

This document contains information regarding compliance with the CEQA and other state laws and regulations. Separate environmental documentation, supporting a Categorical Exclusion determination, will be prepared in accordance with the National Environmental Policy Act. 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 United States National Marine Fisheries Service and the United States Fish and Wildlife Service—in other words, species protected by the Federal Endangered Species Act).

2 Chapter 2. CEQA Environmental Checklist

2.1 Environmental Factors Potentially Affected

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

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

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

checklist and this document are only related to potential impacts pursuant to CEQA. The questions in the CEQA 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 standard measures that are applied to all or most Caltrans projects (such as BMPs and measures included in the Standard Plans and Specifications or as Standard Special Provisions) 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.

2.2 Project Impact Analysis Under CEQA for Initial Study

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 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 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 action, 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 a particular 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 based on their location and the effect of the potential impact on the resource as a whole in the project area. For example, if a project has the potential to impact 0.10 acre of wetland in a watershed that has minimal development and contains thousands of acres of wetland, then a "less than significant" determination would be considered appropriate. In comparison, if 0.10 acre of wetland would be impacted that is located within a park in a city that only has 1.00 acre of total wetland, then the 0.10 acre of wetland impact could be considered "significant."

If the action may have a potentially significant effect on any environmental resource (even with mitigation measures implemented), then an Environmental Impact Report (EIR) must be prepared. Under CEQA, the lead agency may adopt a negative declaration (ND) if there is no substantial evidence that the project may have a potentially significant effect on the environment (14 CCR § 15070(a)). A proposed negative declaration must be circulated for public review, along with a document known as an Initial Study. CEQA 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 process 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 (CAL. PUB. RES. 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.

2.3 Aesthetics

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

"No Impact" and "Less Than Significant" determinations in this section are based on the scope, description, and location of the proposed project, as well as the Visual Impact Assessment dated February 7, 2020.

Regulatory Setting

CEQA establishes that it is the policy of the state to take all action necessary to provide the people of the state "with…enjoyment of *aesthetic*, natural, scenic and historic environmental qualities" (CA Public Resources Code [PRC] Section 21001[b]).

Environmental Setting

SR 36, within the project limits, is eligible for California State Scenic Highway designation. The project extends from the east side of the SR 36/US101 junction to River Bar Road, in the rural community of Alton and about 1.2 miles west of the community of Hydesville. The highway is a west-east rural two-lane conventional highway that connects various unincorporated rural communities and forested lands

across the middle of Humboldt County. The landscape is primarily characterized by rolling grassland hills to the north and agricultural fields mixed with industrial and residential land use to the south. The region is characterized by a Mediterranean climate of hot, dry summers and cool, moist winters.

Discussion of Environmental Evaluation Question 2.3—Aesthetics

a) Caltrans has not officially designated a scenic vista in the general vicinity of the project area, nor has an informal scenic vista been established and utilized by the public. No scenic vistas would be impacted by the proposed project.

b) Within the project area, SR 36 is eligible for California State Scenic Highway designation. The land-scape is primarily characterized by rolling grassland hills to the north and agricultural fields mixed with industrial and residential land use to the south. To accommodate widening, a garage would be demolished from an adjacent property. The removal of the garage would be compatible with the existing visual character as the structure is not visually unique and would result in less infrastructure in the existing landscape, maintaining the rural character. Trees and vegetation would be removed; however, the current landscape is primarily defined by open spaces, and therefore removal would not alter the visual pattern of the surrounding landscape. No significant quantities of landscape features would be removed that would potentially affect SR 36's eligibility as a State Scenic Highway.

c) The project corridor is characterized by agricultural lands and scattered rural residential and industrial landscapes. Large landforms border the highway to the north, with more wide-open spaces to the south. The highway is narrow and bordered by utility features, property line fences, vegetation, and patchy tree stands. The visual character of the proposed project will be compatible with the existing visual character of the corridor. Near the end of the project limits, there is a potential that all or part of a large berm would be removed that currently screens the highway from an industrial area. This would lead to a decrease in visual quality at that location for highway users. However, there are currently several industrial areas along the project corridor, therefore, it is anticipated that the new views would still be compatible with the existing visual character. The change between the existing visual character and the proposed is low. Therefore, the project is expected to generate a less than significant impact on the visual quality of the site.

d) The proposed project is expected to be completed during normal working daylight hours as to not necessitate nighttime illumination sources. Therefore, no substantial new source of lighting or glare is proposed as part of the project.

Mitigation Measures

Based on the determinations made in the CEQA Checklist, mitigation measures have not been proposed for the project.

No Build Alternative

The existing condition would remain; therefore, per CEQA, "*No Impact*" would occur.

2.4 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 and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Question	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project: a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	No	No	No	Yes
Would the project: b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	No	No	No	Yes
Would the project: c) Conflict with existing zoning, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	No	No	No	Yes
Would the project: d) Result in the loss of forest land or conversion of forest land to non-forest use?	No	No	No	Yes
Would the project: e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	No	No	No	Yes

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the Humboldt County Web GIS portal, the California Department of Conservation Farmland Maps, and Natural Resources Conservation Service Soil Survey. Potential impacts to Agriculture and Forest Resources are not anticipated due to the following:

a) Although permanent acquisition of land is anticipated as part of this project, no Prime Farmland is expected to be acquired at this time. Land classified as Prime Farmland is located to the north and south of the existing SR 36 alignment. The proposed alignment would shift SR 20 to the south, yet still out of prime farmland. The project would not convert any land currently used for agriculture to non-agricultural use.

b) There are no parcels under a Williamson Act contract within the project limits.

c) No forest land, timberland, or timberland zoned Timberland Production was identified within the project limits.

d) No forest land was identified within the project limits, and no conversion of forest land to non-forest use is associated with this project.

e) There would be no other changes to farmland or forest land.

No Build Alternative

The existing condition would remain; therefore, per CEQA, "No Impact" would occur.

2.5 Air Quality

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

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

"No Impact" and "Less Than Significant" determinations in this section are based on the scope, description, and location of the proposed project, as well as the Noise & Air Quality Analysis dated October 16, 2017. There would be temporary construction emissions associated with the project. Please see Section 2.7 – Greenhouse Gas Emissions for more information.

Regulatory Setting

The Federal Clean Air Act (CAA), as amended, is the primary federal law that governs air quality, while the California Clean Air Act is its corresponding state law. These laws, and related regulations by the United States Environmental Protection Agency (U.S. EPA) and California Air Resources Board (ARB), set standards for the concentration of pollutants in the air. At the federal level, these standards are called National Ambient Air Quality Standards (NAAQS). NAAQS and state ambient air quality standards (CAAQS) have been established for six transportation-related criteria pollutants that have been linked to potential health concerns: carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), particulate matter (PM), which is broken down for regulatory purposes into particles of 10 micrometers or smaller (PM10) and particles of 2.5 micrometers and smaller (PM2.5), and sulfur dioxide (SO_2). In addition, national and

state standards exist for lead (Pb) and state standards exist for visibility-reducing particles, sulfates, hydrogen sulfide (H_2S), and vinyl chloride. The NAAQS and CAAQS are set at levels that protect public health with a margin of safety and are subject to periodic review and revision. Both state and federal regulatory schemes also cover toxic air contaminants (air toxics); some criteria pollutants are also air toxics or may include certain air toxics in their general definition.

Federal air quality standards and regulations provide the basic scheme for project-level air quality analysis under NEPA. In addition to this environmental analysis, a parallel "conformity" requirement under the CAA also applies.

Environmental Setting

Humboldt County is designated as in attainment of all federal and state criteria air pollutant standards, except for State PM10 levels, for which the entire North Coast Air Basin, including Humboldt County, is currently designated as a non-attainment area.

Discussion of Environmental Evaluation Question 2.5—Air Quality

a - c) Humboldt County is designated as in attainment of all federal and state criteria air pollutant standards, except for State PM10 levels, for which the entire North Coast Air Basin, including Humboldt County, is currently designated as a non-attainment area.

The proposed project would not result in changes to the traffic volume, fleet mix, vehicle speed, location of the existing facility, or any other factor that would cause an increase in operational emissions.

d) The proposed project may result in the generation of short-term construction-related air emissions, including fugitive dust and exhaust emissions from construction equipment. Fugitive dust, sometimes referred to as windblown dust or PM10, would be the primary short-term construction impact, which may be generated during excavation, grading and hauling activities. However, both fugitive dust and construction equipment exhaust emissions would be temporary and transitory in nature. Caltrans Standard Specifications, a required part of all construction contracts, would effectively reduce and control emission impacts during construction. The provisions of Section 14-9.02, Air Pollution Control, and Section 14-9.03 Dust Control require the contractor to comply with all pertinent rules, regulations, ordinances, and statutes of the local air district.

Mitigation Measures

Based on the determinations made in the CEQA Checklist, mitigation measures have not been proposed for the project.

No Build Alternative

The existing condition would remain; therefore, per CEQA, "No Impact" would occur.

2.6 Biological Resources

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

"No Impact," "Less Than Significant Impact," and "Less Than Significant with Mitigation," determinations in this section are based on the scope, description, and location of the proposed project, as well as the Natural Environment Study.

Regulatory Setting

Natural Communities

CDFW has jurisdiction over the conservation, protection, and management of wildlife, native plants, and habitat necessary to maintain biologically sustainable populations (Fish & Game Code, § 1802). CDFW, as a trustee agency under CEQA Guidelines Section 15386, provides expertise in reviewing and commenting on environmental documents and provides protocols regarding potential negative impacts to those resources held in trust for the people of California.

CDFW maintains records of sensitive natural communities in the California Natural Diversity Database (CNDDB). Natural Communities of Special Concern (NCSC) 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 and their habitat. High priority NCSC 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. Natural communities with ranks of S1-S3 are to be addressed in the environmental review processes of CEQA and its equivalents.

Wetlands and waters of the U.S. are also considered sensitive by both federal and state agencies, which are discussed in more detail below.

Wetlands and Other Waters

Federal

Waters of the United States (including wetlands) are protected under a number of laws and regulations. At the federal level, the Federal Water Pollution Control Act, more commonly referred to as the Clean Water Act (CWA) (33 United States Code [USC] 1344), is the primary law regulating wetlands and surface waters. One purpose of the CWA is to regulate the discharge of dredged or fill material into waters of the U.S., including wetlands. Waters of the U.S. include navigable waters, interstate waters, territorial seas, and other waters that may be used in interstate or foreign commerce. The lateral limits of jurisdiction over non-tidal water bodies extend to the OHWM, in the absence of adjacent wetlands. When adjacent wetlands are present, CWA jurisdiction extends beyond the OHWM to the limits of the adjacent wetlands. Include navigable waters, interstate waters, territorial seas, and other waters that may be used in interstate or foreign commerce. To classify wetlands for the purposes of the CWA, a

three-parameter approach is used that includes the presence of hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils formed during saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the CWA.

Section 404 of the CWA establishes a regulatory program that provides that discharge of dredged or fill material cannot be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the USACE with oversight by the U.S. EPA.

The USACE issues two types of 404 permits: General and Individual. There are two types of General permits: Regional and Nationwide. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to allow a variety of minor project activities with no more than minimal effects.

Ordinarily, projects that do not meet the criteria for a Regional or Nationwide Permit may be permitted under one of USACE's Individual permits. There are two types of Individual permits: Standard permits and Letters of Permission. For Individual permits, the USACE decision to approve is based on compliance with U.S. EPA's Section 404(b)(1) Guidelines (40 Code of Federal Regulations [CFR] 230), and whether permit approval is in the public interest. The Section 404 (b)(1) Guidelines (Guidelines) were developed by the U.S. EPA in conjunction with the USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that the USACE may not issue a permit if there is a "least environmentally damaging practicable alternative" to the proposed discharge that would have lesser effects on waters of the U.S., and not have any other significant adverse environmental consequences.

The Executive Order (EO) for the Protection of Wetlands (EO 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, EO 11990 states that a federal agency, such as the Federal Highway Administration (FHWA) and/or Caltrans, as assigned, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: 1) that there is no practicable alternative to the construction and 2) the proposed project includes all practicable measures to minimize harm. A Wetlands Only Practicable Alternative Finding must be made.

State

At the state level, wetlands and waters are regulated primarily by the State Water Resources Control Board (SWRCB), the RWQCBs, and CDFW. In certain circumstances, the Coastal Commission, Bay Conservation and Development Commission, or the Tahoe Regional Planning Agency may also be involved.

Sections 1600–1607 of the California Fish and Game Code require any agency that proposes a project that would substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFW before beginning construction. If CDFW determines the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement would be required. CDFW jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the USACE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFW.

The RWQCBs were established under the Porter-Cologne Water Quality Control Act to oversee water quality. Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA. In compliance with Section 401 of the CWA, the RWQCBs also issue water quality certifications for activities which may result in a discharge to waters of the U.S. This is most frequently required in tandem with a Section 404 permit request. Please see the Hydrology and Water Quality section for additional details.

Plant Species

USFWS and 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. Special-status is a general term for species that are provided varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as endangered or threatened under the Federal Endangered Species Act (FESA) and/or the California Endangered Species Act (CESA). Please see the Threatened and Endangered Species Section in this document for detailed information regarding these species.

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

The regulatory requirements for FESA can be found at USC 16 , Section 1531, et seq. See also 50 CFR Part 402. The regulatory requirements for CESA can be found at California Fish and Game Code, Section 2050, et seq. Caltrans projects are also subject to the Native Plant Protection Act, found at California Fish and Game Code, Sections 1900–1913, and CEQA, found at California Public Resources Code, Sections 21000–21177.

Animal Species

Many state and federal laws regulate impacts to wildlife. The USFWS, National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries Service [NMFS]), and CDFW are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with animals not listed or proposed for listing under the federal or state Endangered Species Acts. Species listed or proposed for listing as threatened or endangered are discussed in the following section. All other special-status animal species are discussed here, including CDFW fully protected species and species of special concern, and USFWS or NMFS candidate species.

Federal laws and regulations pertaining to wildlife include the following:

- National Environmental Policy Act
- Migratory Bird Treaty Act
- Fish and Wildlife Coordination Act

State laws and regulations pertaining to wildlife include the following:

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

Threatened and Endangered Species

The primary federal law protecting threatened and endangered species is FESA: 16 USC Section 1531, et seq. See also 50 CFR Part 402. This act and later amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this act, federal agencies, such as FHWA (and Caltrans, as assigned), are required to consult with the USFWS and NMFS to ensure they are not undertaking, funding, permitting or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to

the existence of a threatened or endangered species. The outcome of consultation under Section 7 may include a BO with an Incidental Take statement, a Letter of Concurrence, and/or documentation of a no effect finding. Section 3 of FESA defines take as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct.”

California has enacted a similar law at the state level, CESA, California Fish and Game Code Section 2050, et seq. CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project-caused losses of listed species populations and their essential habitats. CDFW is the agency responsible for implementing CESA. Section 2080 of the California Fish and Game Code prohibits “take” of any species determined to be an endangered species or a threatened species. Take is defined in Section 86 of the California Fish and Game Code as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” CESA allows for take incidental to otherwise lawful development projects; for these actions an Incidental Take Permit is issued by CDFW. For species listed under both FESA and CESA requiring a BO under Section 7 of FESA, the CDFW may also authorize impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of the California Fish and Game Code.

Another federal law, the Magnuson-Stevens Fishery Conservation and Management Act of 1976, was established to conserve and manage fishery resources found off the coast, as well as anadromous species and Continental Shelf fishery resources of the United States, by exercising (A) sovereign rights for the purposes of exploring, exploiting, conserving, and managing all fish within the exclusive economic zone established by Presidential Proclamation 5030, dated March 10, 1983, and (B) exclusive fishery management authority beyond the exclusive economic zone over such anadromous species, Continental Shelf fishery resources, and fishery resources in special areas.

Invasive Species

On February 3, 1999, President William J. Clinton signed EO 13112 requiring 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.” 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 NEPA analysis for a proposed project.

Environmental Setting

The proposed project is located near the junction of SR 36 and US 101 in Humboldt County, south of the town of Fortuna. The elevation in the project area is approximately 62 ft. above mean sea level. SR 36 is a two-lane highway throughout the project location. The project vicinity experiences cool, wet winters and hot, dry summers with an annual average precipitation as measured at the Scotia climate station of 39.57 inches, with the majority falling between November and March. The wettest months are December, with an annual average precipitation of 10.2 inches, and January, with an annual average rainfall of 8.61 inches. The summer months (July and August) receive an average precipitation of 0.12 and 0.23 inches, respectively. The average annual air temperature is 56.4 °F, with an annual average low of 48.2 °F and an annual average high of 64.6 °F.

A soil report was generated from the United States Department of Agriculture (USDA) Web Soil Survey. The soil types present within the project limits include Jollygiant silty clay loam (0 to 2 percent slopes), Russ loam (0 to 2 percent slopes), Dungan silt loam (0 to 2 percent slopes), Barbercreek silt loam (2 to 5 percent slopes), and Fiedler-Petellen-Nanningcreek complex silt loam (30 to 50 percent slopes).

The surrounding area is mostly flat rural agricultural land to the south or forested areas to the east, with sporadic residential and business use. The project area is bordered to the north by steep grassy hills. SR 36 runs parallel to the Van Duzen River, approximately 0.75 mile north of the river. Wolverton Gulch runs perpendicular to the project at the east end of the project area.

Much of Humboldt County lies in the *Outer North Coast Ranges District (NCoRO)* of the California Floristic Province, as defined by the Jepson Manual. The District is characterized by very high rainfall as well as by redwood, mixed evergreen, and mixed hardwood forests. A potentially jurisdictional ephemeral drainage on the northern hillside is drained by a 36 in. culvert into the drainage ditch and east towards Wolverton Gulch. A potentially jurisdictional wetland occurs on private property. The northern edge of the potentially jurisdictional wetland is within the Environmental Study Limit (ESL) and would be affected by project activities.

Drainage ditches that drain predominantly roadside runoff flow west along the entire length of the project on both sides of the road. At the intersection of SR 36 and Old State Highway 101, the southern ditch turns south and flows towards the Van Duzen River. The drainage ditches are almost completely covered with plant material. Common and prevalent species in the drainage ditches include Himalayan blackberry (*Rubus armeniacus*), poison oak (*Toxicodendron diversilobum*), mint (*Mentha sp.*), and willow (*Salix spp.*).

Natural Communities

Riparian Habitat

Riparian habitat is present within the ESL along a few of the ditches on the north and south side of the project. These ditches are densely vegetated but individual property owners occasionally maintain the vegetation within these ditches. Riparian vegetation at these locations are predominantly composed of Himalayan blackberry (Rubus armeniacus), poison oak (Toxicodendron diversilobum), and willow (Salix spp.).

Wetlands and Other Waters

A potentially jurisdictional wetland at PM 0.7 was identified on private property adjacent to the south side of SR 36. In addition, a potentially jurisdictional ephemeral drainage was identified on the hillside to the north of the project area at PM 1.30. A 36 in. culvert drains this ephemeral stream into a drainage ditch on the north side of SR 36, then drains east toward Wolverton Gulch and crosses the highway at the culvert near PM 1.37. This drainage ditch to the north and four roadside ditches to the south are considered potentially jurisdictional other waters of the United States (OWUS)/State and contain a defined bed and bank. All OWUS are also considered waters of the State.

Plant Species

The plants listed in Table 2 are considered to be of special concern based on (1) federal, state, or local laws regulating their development; (2) limited distributions; and/or (3) the presence of habitat required by the special-status plants occurring on site. Pacific gilia (*Gilia capitata ssp. pacifica*), maple-leaved checkerbloom (*Sidalcea malachroides*), and Siskiyou checkerbloom (*Sidalcea malviflora ssp. patula*) were found to potentially be present within the ESL.

Pacific Gilia

Botanical surveys were completed during the appropriate flowering season in all areas of potential ground disturbance and throughout the ESL in June and August 2017. Pacific gilia was not found in either survey.

Maple-Leaved Checkerbloom

Botanical surveys were completed during the appropriate flowering season in all areas of potential ground disturbance throughout the ESL in June and August 2017. Maple-leaved checkerbloom was not found in either survey.

Siskiyou Checkerbloom

Botanical surveys were completed during the appropriate flowering season in all areas of potential ground disturbance throughout the ESL in June 2017, August 2017, and July 2019. A population of Siskiyou checkerbloom was found on the westbound shoulder of SR 36 at PM 0.83.

Table 2 – Special Status Plants Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Federal/ State/ CNPS	Habitat	Present/ Absent	Rationale
Clarkia amoena ssp. whitneyi	Whitney's farewell-to-spring	-/- -/List 1B.1	Coastal bluff scrub, coastal scrub.	Absent	No Impact. No suitable habitat present in project area.
Collomia tracyi	Tracy's collomia	-/- -/List 4.3	Lower montane coniferous forest.	Absent	No Impact. No suitable habitat present in project area.
Erysimum menziesii ssp. menziesii	Menzies' wallflower	E/E -/List 1B.1	Coastal dunes.	Absent	No Effect. No suitable habitat present in project area. Project would not result in "take."
Fissidens pauperculus	Minute pocket moss	-/- -/List 1B.2	North Coast coniferous forest (damp coastal soil).	Absent	No Impact. No suitable habitat present in project area.
Gilia capitata ssp. pacifica	Pacific gilia	-/- -/List 1B.2	Coastal bluff scrub, chaparral (openings), coastal prairie, valley and foothill grassland.	Present	No Impact. Record of species along north side of road in 1927. Species was not observed during surveys; no work would occur on north side of road.
Hesperolinon adenophyllum	Glandular western flax	-/- -/List 1B.2	Chaparral, cismontane woodland, valley and foothill grassland/usually serpentinite.	Absent	No Impact. No suitable habitat present in project area.
Layia carnosa	Beach layia	E/E -/List 1B.1	Coastal dunes and sandy coastal scrub.	Absent	No Effect. No suitable habitat present in project area. Project would not result in "take."

Lilium kelloggi	Kellogg's lily	-/- -/List 4.3	Openings and roadsides in lower montane coniferous forest and North Coast coniferous forest.	Absent	No Impact. No suitable habitat present in project area.
Lilium occidentale	Western lily	E/E -/List 1B.1	Bogs and fens; coastal scrub, prairie, and bluff scrub; freshwater marshes and swamps; and openings in North Coast coniferous forest.	Absent	No Effect. No suitable habitat present in project area. Project would not result in "take."
Lilium rubescens	Redwood lily	-/- -/List 4.2	Broadleafed upland forest, chaparral, lower montane coniferous forest, North Coast coniferous forest, upper montane coniferous forest/sometimes serpentinite, sometimes roadsides.	Absent	No Impact. No suitable habitat present in project area.
Listera cordata	Heart-leaved twayblade	-/- -/List 4.2	Bogs and fens, lower montane coniferous forest, North Coast coniferous forest.	Absent	No Impact. No suitable habitat present in project area.
Lycopodium clavatum	Running-pine	-/- -/List 4.1	Lower montane coniferous forest (mesic), marshes and swamps, North Coast coniferous forest (mesic)/often edges, openings, and roadsides.	Absent	No Impact. No suitable habitat present in project area.
Mitellastra caulescens	Leafy-stemmed mitrewort	-/- -/List 4.2	Broadleafed upland forest, lower montane coniferous forest, meadows and seeps, North Coast coniferous forest/mesic, sometimes roadsides.	Absent	No Impact. No suitable habitat present in project area.

Montia howellii	Howell's montia	-/- -/List 2B.2	Vernally mesic meadows and seeps, North Coast coniferous forest and vernal pools. Sometimes on roadsides.	Absent	No Impact. No suitable habitat present in project area.
Packera bolanderi var. bolanderi	Seacoast ragwort	-/- -/List 2B.2	Coastal scrub, North Coast coniferous forest/sometimes roadsides.	Absent	No Impact. No suitable habitat present in project area.
Pleuropogon refractus	Nodding semaphore grass	-/- -/List 4.2	Lower montane coniferous forest, meadows and seeps, North Coast coniferous forest, riparian forest/mesic.	Absent	No Impact. No suitable habitat present in project area.
Polemonium carneum	Oregon polemonium	-/- -/List 2B.2	Coastal prairie and scrub; lower montane coniferous forest.	Absent	No Impact. No suitable habitat present in project area.
Sidalcea malachroides	Maple-leaved checkerbloom	-/- -/List 4.2	Broadleafed upland forest, coastal prairie, coastal scrub, North Coast coniferous forest, riparian woodland/often in disturbed areas.	Present	No Impact. Record of species east of project location along SR 36. Not observed during survey.
Sidalcea malviflora ssp. patula	Siskiyou checkerbloom	-/- -/List 1B.2	Coastal bluff scrub, coastal prairie, North Coast coniferous forest/often roadcuts.	Present	No Impact. Species observed on westbound side of SR-36. Will be avoided using ESA fencing.
Usnea longissima	Methuselah's beard lichen	-/- -/List 4.2	Grows on old-growth Douglas-fir limbs in redwood forests along the Pacific coast.	Absent	No Impact. No suitable habitat present in project area.

[1]Status Explanations:

Federal Status (pursuant to the Federal Endangered Species Act of 1973, as amended)

E = endangered. Listed as being in danger of extinction.

T = threatened. Listed as likely to become endangered within the foreseeable future.

P = proposed. Proposed for listing as threatened or endangered, or for delisting.

C = candidate. Candidate that may become a proposed species.

D = delisted.

- = no listing under the Federal Endangered Species Act.

State Status (pursuant to §1904 (Native Plant Protection Act of 1977) and §2074.2 and §2075.5 (California Endangered Species Act of 1984) of the Fish and Game Code)

E = listed as endangered under the California Endangered Species Act.

T = listed as threatened under the California Endangered Species Act.

C = candidate. Candidate that may become threatened, endangered, or delisted.

D = delisted.

- = no listing.

State Status (other listings)

SC = species of special concern. Animals not listed under the Federal Endangered Species Act or the California Endangered Species Act, but which are declining at a rate that could result in listing, or historically occurred in low numbers and known threats to their persistence currently exist.

FP = Fully Protected. Fully Protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

WL = Watch List. Species that do not meet the criteria of SC, but for which there is concern and a need for additional information to clarify status.

California Native Plant Society (CNPS)

List 1A = Presumed extinct in California.

List 1B species = Plants rare, threatened, or endangered in California and elsewhere.

List 2 species = Rare, threatened, or endangered in California, but more common elsewhere.

List 3 species = More information is needed about the plant species.

List 4 species = Limited distribution (Watch List).

.1 = seriously endangered in California.

.2 = fairly endangered in California.

.3 = Not very endangered in California

Animal and Threatened/Endangered Species

Animals listed in Table 3 are considered to be of special concern based on (1) federal, state, or local laws regulating their development; (2) limited distributions; and/or (3) the habitat requirements of special-status animals occurring on site. Tricolored blackbird (*Agelaius tricolor*) and foothill yellow-legged frog (*Rana boylii*) were found to potentially be present within the ESL.

Tricolored Blackbird

Suitable habitat is present within the ESL, however no tricolored blackbirds were observed during surveys. Observations of tricolored blackbirds were reported in Fortuna, California in June 1995 and June 1997, approximately 1.5 linear miles north from the project location. Himalayan blackberry could provide suitable nesting and foraging habitat for tricolored blackbirds. The drainage ditches on the south side of the road are heavily covered in Himalayan blackberry.

Foothill Yellow-Legged Frog

Good quality breeding and/or dispersal habitat may occur in Wolverton Gulch at the eastern end of the project, and in the Van Duzen River approximately 0.75 mile south of the project location. Visual surveys were conducted and it was determined that breeding and/or dispersal habitat does not exist in the roadside ditches or wetlands adjacent to the existing roadway.

Table 3 – Special-status Animals and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Amphibians List

Birds List

Scientific Name	Common Name	Federal/State Other/CNPS	Habitat	Present/ Absent	Rationale
Accipiter cooperii	Cooper's hawk	-/- WL/-	Nests in a variety of habitat types, from riparian woodlands and foothill pine-oak woodlands through mixed conifer forests.	Absent	No Impact. No suitable habitat present in project area.
Accipiter striatus	Sharp-shinned hawk	-/- WL/-	Dense canopy ponderosa pine or mixed-conifer forest and riparian habitats.	Absent	No Impact. No suitable habitat present in project area.
Agelaius tricolor	Tricolored blackbird	-/CE SC/-	Nests in emergent wetland vegetation such as tules or cattails, or at upland sites with blackberry shrubs, nettles, and thistles.	Present	No impact. Blackberry bushes along ditches on both sides of road. Known recording 0.7 mi N of on SR36/US101 junction. Vegetation removal along S side of road needed. With implementation of AMM's, the project would not result in "take."

Ardea herodias	Great blue heron	-/- -/-	Fresh, saline, or brackish marshes, mudflats, estuaries, lakes, and slow moving rivers and irrigation canals.	Absent	No Impact. No suitable habitat present in project area.
Brachyramphus marmoratus	Marbled murrelet	T/E -/-	Mature, coastal coniferous forests for nesting; nearby coastal water for foraging; nests in conifer stands greater than 150 years old and may be found up to 35 miles inland; winters on subtidal and pelagic waters often well offshore.	Absent	No Effect. No suitable habitat present in project area. Project would not result in “take.”

Charadrius alexandrinus nivosus	Western snowy plover	T/- SC/-	Coastal beaches above the normal high tide limit with wood or other debris for cover. Inland shores of salt ponds and alkali or brackish inland lakes.	Absent	No Effect. No suitable habitat present in project area.
Coccyzus americanus occidentalis	Western yellow-billed cuckoo	T/E -/-	Wide, dense riparian forests with a thick understory of willows for nesting; sites with a dominant cottonwood overstory are preferred for foraging; may avoid valley oak-riparian habitats where scrub jays are abundant.	Absent	No Effect. No suitable habitat present in project area. Project would not result in “take.”

Nycticorax nycticorax	Black-crowned night heron	-/- -/-	Feeds along lakes, large rivers, and fresh or brackish emergent wetlands with densely foliated trees or dense emergent vegetation for nesting.	Absent	No Impact. No suitable habitat present in project area.
Pandion haliaetus	Osprey	-/- WL/-	Nests in snags, trees, or utility poles near the ocean, large lakes, or rivers with abundant fish populations.	Absent	No Impact. No suitable habitat present in project area.
Riparia riparia	Bank swallow	-/T -/-	Neotropical migrant found in riparian, lacustrine and coastal habitats with vertical banks, bluffs and cliffs containing sandy soils for digging nest holes.	Absent	No Impact. No suitable habitat present in project area. Project would not result in “take.”

Strix occidentalis caurina	Northern spotted owl	T/T -/-	Dense old-growth or mature forests dominated by conifers with topped trees or oaks available for nesting crevices.	Absent	No Effect. No suitable habitat present in project area. Project would not result in “take.”

Fish List

Scientific Name	Common Name	Federal/State Other/CNPS	Habitat	Present/ Absent	Rationale
Oncorhynchus clarkii clarkii	Coast cutthroat trout	-/- SC/-	Freshwater rivers; less rarely migrating out to sea.	Absent	No Impact. No suitable habitat present in project area.
Oncorhynchus kisutch	Southern Oregon/Northern California (SONCC) coho salmon	T/T -/-	Requires beds of loose, silt free, coarse gravel for spawning. Also needs cover, cool water, and sufficient dissolved oxygen.	Absent	No Effect. No suitable habitat present in project area. Project would not result in "take."
Oncorhynchus mykiss	Northern California steelhead	T/- -/-	Cool freshwater streams and rivers, require sand and gravel for spawning.	Absent	No Effect. No suitable habitat present in project area.
Oncorhynchus tshawytscha	California coastal Chinook salmon	T/- -/-	Ocean and coastal streams.	Absent	No Effect. No suitable habitat present in project area.
Spirinchus thaleichthys	Longfin smelt	C/T SC/-	Open waters of the San Francisco Bay-Delta	Absent	No Effect. No suitable habitat present in project area. Project would not result in "take."

Mammal List

Scientific Name	Common Name	Federal/State Other/CNPS	Habitat	Present/ Absent	Rationale
Antrozous pallidus	Pallid bat	-/- SC/-	Occurs throughout California except for the High Sierra, from Shasta to Kern County and the northwest coast, primarily at lower and mid elevations.	Absent	No Impact. No suitable habitat present in project area.
Aplodontia rufa humboldtiana	Humboldt mountain beaver	-/- -/-	Coast ranges in southwestern Del Norte County and northwestern Humboldt County. Variety of coastal habitats, including coastal scrub, riparian forests, typically with open canopy and thickly vegetated understory.	Absent	No Impact. No suitable habitat present in project area.

Arborimus pomo	Sonoma tree vole	-/- SC/-	Inhabits old-growth forests of Douglas-fir, redwood, or montane hardwood-conifer species.	Absent	No Impact. No suitable habitat present in project area.
Corynorhinus townsendii	Townsend's big-eared bat	-/- SC/-	Roosts in caves, tunnels, mines, and dark attics of abandoned buildings.	Absent	No Impact. No suitable habitat present in project area.
Erethizon dorsatum	North American porcupine	-/- -/-	Wide variety of coniferous and mixed woodland habitat in the Sierra Nevada, Cascade, and Coast Ranges.	Absent	No Impact. No Impact. No suitable habitat present in project area.
Lasiurus cinereus	Hoary bat	-/- -/-	Normally roosts alone in trees but has been seen in caves with other bats. Prefers woodland, mainly coniferous forests.	Absent	No Impact. No suitable habitat present in project area.

Martes caurina humboldtensis	Humboldt marten	-/CE SC/-	Old growth forests.	Absent	No Impact. No suitable habitat present in project area. Project would not result in "take."
Martes pennanti (Pekania pennanti)	Fisher, West Coast DPS	PT/T SC/-	Northern coniferous and mixed forests with tree cavities and hollow logs for den sites.	Absent	No Effect. No suitable habitat present in project area. Project would not result in "take."

Reptile List

Scientific Name	Common Name	Federal/State Other/CNPS	Habitat	Present/ Absent	Rationale
Emys marmorata	Western pond turtle	-/- SC/-	Permanent or mostly permanent waters in a variety of habitats.	Present	No Impact. Suitable habitat present at Wolverton Creek but outside of ESL. No in water work will occur.

Habitat Name	**Habitat Description**	**Present/ Absent**	**Rationale**
SONCC Coho Critical Habitat	Waterways, substrate, and adjacent riparian zones below longstanding, naturally impassable barriers.	Absent	No Effect. No suitable habitat present in project area.
CC Chinook Salmon Critical Habitat	Stream channels within the designated stream reaches, and includes a lateral extent as defined by the ordinary high-water line.	Absent	No Effect. No suitable habitat present in project area.
NC Steelhead Critical Habitat	Stream channels within the designated stream reaches, and includes a lateral extent as defined by the ordinary high-water line.	Absent	No Effect. No suitable habitat present in project area.
Coho EFH	Below OHWM.	Absent	No Effect. No suitable habitat present in project area.
Chinook Salmon EFH	Below OHWM.	Absent	No Effect. No suitable habitat present in project area.

Coastal Pelagics EFH	Below OHWM.	Absent	No Effect. No suitable habitat present in project area.
Groundfish EFH	Below OHWM.	Absent	No Effect. No suitable habitat present in project area.

[1]Status Explanations:

Federal Status (pursuant to the Federal Endangered Species Act of 1973, as amended)

E = endangered. Listed as being in danger of extinction.

T = threatened. Listed as likely to become endangered within the foreseeable future.

P = proposed. Proposed for listing as threatened or endangered, or for delisting.

C = candidate. Candidate that may become a proposed species.

D = delisted.

- = no listing under the Federal Endangered Species Act.

State Status (pursuant to §1904 (Native Plant Protection Act of 1977) and §2074.2 and §2075.5 (California Endangered Species Act of 1984) of the Fish and Game Code)

E = listed as endangered under the California Endangered Species Act.

T = listed as threatened under the California Endangered Species Act.

C = candidate. Candidate that may become threatened, endangered, or delisted.

D = delisted.

- = no listing.

State Status (other listings)

SC = species of special concern. Animals not listed under the Federal Endangered Species Act or the California Endangered Species Act, but which are declining at a rate that could result in listing, or historically occurred in low numbers and known threats to their persistence currently exist.

FP = Fully Protected. Fully Protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

WL = Watch List. Species that do not meet the criteria of SC, but for which there is concern and a need for additional information to clarify status.

California Native Plant Society (CNPS)

List 1A = Presumed extinct in California.

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List 3 species = More information is needed about the plant species.

List 4 species = Limited distribution (Watch List).

.1 = seriously endangered in California.

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Invasive Species

Various invasive species including, but not limited to, Himalayan blackberry, wild oat (*Avena fatua*), big quaking grass (*Briza maxima*), poison hemlock (*Conium maculatum*), Italian rye grass (*Festuca perennis*), curly dock (*Rumex crispus*), and periwinkle (*Vinca major*), were identified during the botanical surveys. The majority of equipment would be confined to the area where invasive species are currently present and would not be moved off-site prior to vegetation removal. Vegetation removal would be required; however, most of the vegetation to be removed is non-native Himalayan blackberry and the spread or introduction of invasive species is not expected to occur.

Discussion of Environmental Evaluation Questions 2.6—Biological Resources

The following discusses questions A through F of the CEQA Checklist - Biological Resources section. Each question is discussed individually; however, it should be noted that some resources (e.g., salmonids) fall under more than one question. As such, where necessary, those resources are discussed multiple times throughout this section.

Discussion of CEQA Checklist Question A

The following CEQA Checklist item was used to evaluate the impacts of the proposed project on species in the project area:

- 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?

Plant Species

Pacific Gilia

This project is not expected to impact this species or its habitat.

Pacific Gilia Avoidance and Minimization Efforts

No avoidance and minimization measures are proposed. Caltrans has determined that the project would have no impact on Pacific gilia.

Maple-Leaved Checkerbloom

This project is not expected to impact this species or its habitat.

Maple-Leaved Checkerbloom Avoidance and Minimization Efforts

No avoidance and minimization measures are proposed. Caltrans has determined that the project would have no impact on maple-leaved checkerbloom.

Siskiyou Checkerbloom

The majority of work on the project is expected to occur on the eastbound side of the roadway, although some work would occur on the westbound side within the vicinity of the population of Siskiyou checkerbloom. This population would be avoided during construction using *environmentally sensitive area (ESA) fencing.*

Siskiyou Checkerbloom Avoidance and Minimization Efforts

The population of Siskiyou checkerbloom at PM 0.83 on the westbound side of SR 36 would be designated as an ESA. ESA information would be shown on contract plans and discussed in the Special Provisions. ESA provisions may include, but are not limited to; the use of temporary orange high visibility fencing to delineate the proposed limit of work in areas adjacent to sensitive resources, or to delineate and exclude sensitive resources from potential construction impacts. Contractor encroachment into ESAs would be restricted (including the staging/operation of heavy equipment or casting of excavation materials). ESA provisions would be implemented as a first order of work, and remain in place until all construction activities are complete.

Based on the above, a determination was made that the project would have a “Less Than Significant Impact” on Siskiyou checkerbloom.

Animal Species

Tricolored Blackbird

Vegetation removal, including the removal of Himalayan blackberry, would be a necessary component of the project, though the amount and extent of vegetation to be removed is minimal and directly adjacent to the roadway. Himalayan blackberry could provide suitable nesting and foraging habitat for tricolored blackbirds, though no nesting has been observed in the project limits and the habitat is poor quality due to its proximity to the roadway.

Tricolored Blackbird Avoidance and Minimization Efforts

If feasible, removal of vegetation would be conducted in the fall and winter (between October 1 and January 31) after fledging and before the initiation of breeding activities. If vegetation removal during the non-nesting season is determined unfeasible, then pre-construction bird nest surveys would be performed to determine the location of nest sites within and adjacent to the project limits. If no active bird nests are found during pre-construction surveys, then vegetation

would be removed within five (5) days. Pre-construction surveys would be conducted by a Caltrans Biologist or qualified biologist. If active bird nests are found, Caltrans would coordinate with the USFWS regarding appropriate action to comply with the Migratory Bird Treaty Act of 1918, and with the CDFW to comply with provisions of the Fish and Game Code of California. If a lapse in project related work of fifteen (15) days or longer occurs, another survey and, if required, coordination with USFWS and CDFW would occur before work can be reinitiated.

Based on the above, a determination was made that the project would have a "Less Than Significant Impact" to tricolored blackbird.

Foothill Yellow-Legged Frog (FYLF)

Existing roadside ditches to the south of SR 36 would be filled in to accommodate shoulder widening and replaced outside of the clear recovery zone. No work in or on the banks of Wolverton Gulch would occur. This project would have no impact of the FYLF breeding or dispersal habitat. The proposed project would not result in "take" of the species.

Foothill Yellow-Legged Frog Avoidance and Minimization Efforts

No avoidance and minimization measures are proposed. Caltrans has determined that the project would have no impact to FYLF and would not result in "take."

Discussion of CEQA Checklist Question B

The following CEQA Checklist item was used to evaluate the impacts of the proposed project on natural communities:

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

Riparian Habitat

Riparian vegetation would be removed surrounding ditches on the south side. These ditches would be filled to allow for road widening and replaced further south. Clearing and trimming of riparian vegetation consisting of Himalayan blackberry, poison oak, and willow would be needed. This vegetation removal would not lead to an increase in sedimentation but would temporarily decrease shading within newly created ditches.

Riparian Habitat Avoidance and Minimization Efforts

The following project features would be implemented during construction:

- Removal of vegetation would be conducted in the fall and winter (between October 1 to January 31) after fledging of birds and before the initiation of breeding activities.

- If vegetation removal during the non-nesting season is determined unfeasible, then pre-construction bird nest surveys would be performed to determine the location of nest sites within and adjacent to the project limits.

- If no active bird nests are found during pre-construction surveys, then vegetation would be removed within five (5) days.

- Pre-construction surveys would be conducted by a Caltrans biologist or qualified biologist. If active bird nests are found, Caltrans would coordinate with the USFWS regarding appropriate action to comply with the Migratory Bird Treaty Act of 1918, and with the CDFW to comply with provisions of the Fish and Game Code of California.

- If a lapse in project related work of 15 days or longer occurs, another survey and, if required, coordination with USFWS and the CDFW would occur before work can be reinitiated.

- Upon completion of project and before rain events, areas of disturbance on streambanks shall be stabilized with a hydroseed mixture of native species.

- Trees providing riparian habitat would either be replanted on-site or at an agency approved off-site location.

- Removal of riparian vegetation shall not exceed the minimum amount necessary for construction activities. If feasible, flagging or staking would be used to delineate the work area.

Discussion of CEQA Checklist Question C

The following CEQA Checklist item was used to evaluate the impacts of the proposed project on wetlands and waters:

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

Wetlands and Other Waters

The drainage ditches along the south side of the road will be filled in to accommodate the shoulder widening. Ditches would be replaced in kind outside of the clear recovery zone. Approximately 0.282 acres (12,278.44 sqft) of OWUS and State in these ditches would be temporarily impacted and approximately 0.102 acres (4,443.12 sqft) of wetlands at PM 0.7 would be permanently impacted (Figure 2, Page 2). A total of 14 culverts associated with the drainage ditches would be replaced, extended, and/or widened. A grand total of 0.116 acres (5,058.12 sqft) of permanent impacts and 0.295 acres (12,828.44 sqft) of temporary impacts to the OWUS and State would occur due to project activities. Table 4 details the impacts to OWUS and waters of the State at each culvert, ditch, and wetland.

Table 4: Impacts to OWUS and State.

Location	Type	Impact Type	Permanent Impacts (LF)	Permanent Impacts (sqft)	Permanent Impacts (acres)
1	CMP	State	7	14	0.0003
2	RCP	State	6	9	0.0002
3	RCP	State	0 (no extension)	0	0
4	RCP	State	55	192.5	0.0044
5	APC	State	17	34	0.0008
6	APC	State	31	62	0.0014
7	APC	State	20	40	0.0009
8	APC	State	18	36	0.0008
9	CSP	State	24	36	0.0008
10	APC	State	22	44	0.0010
11	APC	State	19	38	0.0009
12	RCP	State	21	42	0.0010
13	RCP	State	25	37.5	0.0009
14	RCP	State	20	30	0.0007

Wetland	N/A	U.S./State	N/A	4,443.12	0.1020
Total			**230 LF**	**5,058.12 sqft**	**0.116 acre**

Location	Type	Impact Type	*Temporary Impacts (LF)	Temporary Impacts (sqft)	Temporary Impacts (acres)
1	CMP	State	20	40	0.0009
2	RCP	State	20	30	0.0007
3	RCP	State	20	40	0.0009
4	RCP	State	20	70	0.0016
5	APC	State	20	40	0.0009
6	APC	State	20	40	0.0009
7	APC	State	20	40	0.0009
8	APC	State	20	40	0.0009
9	CSP	State	20	30	0.0007
10	APC	State	20	40	0.0009
11	APC	State	20	40	0.0009
12	RCP	State	20	40	0.0009
13	RCP	State	20	30	0.0007
14	RCP	State	20	30	0.0007
Ditches	Ditch	U.S./State	N/A	12,278.44	0.2818
Total			**230 LF**	**12,828.44 sqft**	**0.295 acre**

*Linear feet is calculated as 10-ft at inlet and 10-ft at outlet

Wetlands and Other Waters Avoidance and Minimization Efforts

The following project features would be implemented during construction:

- Impacts to OWUS would be compensated for by replacing drainage ditches "in-kind." Impacts to wetlands would be mitigated for by on-site or off-site mitigation at an appropriate mitigation ratio.

- The drainage ditch just north of the wetland (PM 0.7) and driveway culverts to the east (PM 0.81) and west (PM 0.63) of the wetland would be designed and constructed as to not drain the remaining wetland area south of the wetland to be impacted.

Discussion of CEQA Checklist Question D

The following CEQA Checklist item was used to evaluate the impacts of the proposed project on any plant and animal species:

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

Tricolored Blackbird

Please reference Section 2.6 "Discussion of Environmental Evaluation Questions 2.6 – Biological Resources – Question A." Based on the discussion of tricolored blackbird in Question A, a determination was made that the project would have a "Less Than Significant Impact" on tricolored blackbird.

Foothill Yellow-Legged Frog

Please reference Section 2.6 "Discussion of Environmental Evaluation Questions 2.6 – Biological Resources – Question A." Based on the discussion of FYLF in Question A, a determination was made that the project would have no impact on FYLF.

Discussion of CEQA Checklist Question E

The following CEQA Checklist item was used to evaluate conflicts with any local policies or ordinances:

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

A "No Impact" determination in this section is based on the location and description of the proposed project. The project does not conflict with any local policies or ordinances protecting biological resources.

Discussion of CEQA Checklist Question F

The following CEQA Checklist item was used to evaluate conflicts with the provisions of an adopted Conservation Plan:

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

A "No Impact" determination in this section is based on the location of the proposed project. The project is not located within any habitat or community conservation locations; therefore, it would not conflict with provisions of any Habitat or Natural Community Conservation Plans.

Mitigation Measures

Pacific Gilia

No compensatory mitigation is proposed.

Maple-Leaved Checkerbloom

No compensatory mitigation is proposed.

Siskiyou Checkerbloom

No compensatory mitigation is proposed.

Tricolored Blackbird

No compensatory mitigation is proposed.

Foothill-Yellow Legged Frog

No compensatory mitigation is proposed.

Riparian Habitat

Trees providing riparian habitat would either be replanted on-site or at an agency approved off-site location and ratio.

Wetlands

Impacts to wetlands would be mitigated for by on-site or off-site mitigation at an appropriate mitigation ratio.

Other Waters

No compensatory mitigation is proposed.

No Build Alternative

The existing condition would remain; therefore, per CEQA, “No Impact” would occur.

2.7 Cultural Resources

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

"No Impact" and "Less Than Significant" determinations in this section are based on the scope, description, and location of the proposed project, as well as the results presented in the Historic Property Survey Report

Regulatory Setting

The term "cultural resources," as used in this document, refers to the "built environment" (e.g., structures, bridges, railroads, water conveyance systems, etc.), places of traditional or cultural importance, and archaeological sites (both prehistoric and historic), regardless of significance. Under federal and state laws, cultural resources that meet certain criteria of significance are referred to by various terms including "historic properties," "historic sites," "historical resources," and "tribal cultural resources." Laws and regulations dealing with cultural resources include:

The National Historic Preservation Act (NHPA) of 1966, as amended, sets forth national policy and procedures for historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for listing in the National Register of Historic Places (NRHP). Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties and to allow the Advisory Council on Historic Preservation (ACHP) the opportunity to comment on those undertakings, following regulations issued by the ACHP (36 Code of Federal Regulations [CFR] 800). On January 1, 2014, the First Amended Section 106

Programmatic Agreement (PA) among the Federal Highway Administration (FHWA), the ACHP, the California State Historic Preservation Officer (SHPO), and the Department went into effect for Department projects, both state and local, with FHWA involvement. The PA implements the ACHP's regulations, 36 CFR 800, streamlining the Section 106 process and delegating certain responsibilities to the Department. The FHWA's responsibilities under the PA have been assigned to the Department as part of the Surface Transportation Project Delivery Program (23 United States Code [USC] 327).

The California Environmental Quality Act (CEQA) requires the consideration of cultural resources that are historical resources and tribal cultural resources, as well as "unique" archaeological resources. California Public Resources Code (PRC) Section 5024.1 established the California Register of Historical Resources (CRHR) and outlined the necessary criteria for a cultural resource to be considered eligible for listing in the CRHR and, therefore, a historical resource. Historical resources are defined in PRC Section 5020.1(j). In 2014, Assembly Bill 52 (AB 52) added the term "tribal cultural resources" to CEQA, and AB 52 is commonly referenced instead of CEQA when discussing the process to identify tribal cultural resources (as well as identifying measures to avoid, preserve, or mitigate effects to them). Defined in PRC Section 21074(a), a tribal cultural resource is a CRHR or local register eligible site, feature, place, cultural landscape, or object which has a cultural value to a California Native American tribe. Tribal cultural resources must also meet the definition of a historical resource. Unique archaeological resources are referenced in PRC Section 21083.2.

PRC Section 5024 requires state agencies to identify and protect state-owned historical resources that meet the NRHP listing criteria. It further requires the Department to inventory state-owned structures in its rights-of-way. Sections 5024(f) and 5024.5 require state agencies to provide notice to and consult with the State Historic Preservation Officer (SHPO) before altering, transferring, relocating, or demolishing state-owned historical resources that are listed on or are eligible for inclusion in the NRHP or are registered or eligible for registration as California Historical Landmarks. Procedures for compliance with PRC Section 5024 are outlined in a Memorandum of Understanding (MOU)[1] between the Department and SHPO, effective January 1, 2015. For most Federal-aid projects on the State Highway System, compliance with the Section 106 PA will satisfy the requirements of PRC Section 5024.

[1] The MOU is located on the SER at http://www.dot.ca.gov/ser/vol2/5024mou_15.pdf

Environmental Setting

Record searches, literature reviews, consultation, and survey identified two cultural resources within the project limits: the Northwestern Pacific Railroad (CA-MEN-762H) and the Alton Blacksmith Shop. The Native American Heritage Commission search determined that no tribal cultural resources have been identified in the project Area of Potential Effects (APE) report.

Discussion of Environmental Evaluation Question 2.7—Cultural Resources

a - b) Studies identified two historic-era resources within the project APE: the Northwestern Pacific Railroad (CA-MEN-762H) and the Alton Blacksmith Shop. Overall, this project will have a Finding of No Adverse Effect (FNAE). The SHPO is currently reviewing this finding and will provide concurrence prior to PA&ED.

The Northwestern Pacific Railroad (CA-MEN-762H) within the APE was constructed in 1884 by the Eel

River & Eureka Railroad. In 1907, the railroad was acquired by the Northwestern Pacific Railroad and was merged with other railroads to form their main line between Eureka and San Francisco. This resource is assumed eligible for the NRHP for the purposes of this project per Section 106 PA Stipulation VIII.C.4. The Caltrans Cultural Studies Office (CSO) approved this assumption of eligibility on February 18, 2020. It has been determined that the project will not adversely affect this resource. The majority of the railroad will be avoided by establishing it as an Environmentally Sensitive Area (ESA) during construction. Any portions of the railroad located within the construction impact area that need to be removed during construction will be replaced to its original condition to the extent feasible. These avoidance and protection measures will prevent adverse effects to the railroad. The SHPO is currently reviewing this finding.

The Alton Blacksmith Shop is a historic-era archaeological resource. This resource is assumed eligible for the NRHP for the purposes of this project per Section 106 PA Stipulation VIII.C.4. CSO approved this assumption of eligibility on February 18, 2020. It has been determined that the project will not adversely affect this resource. During archaeological excavations, the portion of the site within the construction impact area was found to lack a diversity of materials necessary to answer meaningful research questions. It was determined that affecting the portion of the site within the construction zone would not affect the reasons that make this resource historically significant. The rest of this resource will be avoided by establishing it as an ESA during construction. This avoidance measure will prevent adverse effects to this site. The SHPO is currently reviewing this finding.

c) No indicators of human remains were observed within the project limits. If human remains are identified during the construction activity, they would be treated in accordance with the requirements of California Health and Safety Code section 7050.5 and Public Resources Code section 5097.98. If, pursuant to §7050.5(c) of the California Health and Safety Code, the county coroner/medical examiner determines that the human remains are or may be of Native American origin, then the discovery shall be treated in accordance with the provisions of §5097.98 (a)-(d) of the California Public Resources Code.

Mitigation Measures

Based on the determinations made in the CEQA Checklist, mitigation measures have not been proposed for the project. Avoidance and minimization measures, such as ESAs, will be implemented during the project.

No Build Alternative

The existing condition would remain; therefore, per CEQA, “No Impact” would occur.

2.8 Energy

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

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the Noise, Air Quality, Greenhouse Gas, and Energy Analysis dated July 23, 2019. Potential impacts to energy are not anticipated due to the following:

a - b) The proposed project would not increase capacity or provide congestion relief when compared to the no-build alternative. It may contribute to roadway improvement that would improve vehicles' fuel economies and thus affecting project energy consumption.

The basic procedure for analyzing direct energy consumption from construction activities is to obtain fuel consumption projections in gallons from the CAL-CET2018, version 1.2. CAL-CET outputs fuel consumption based on project-specific construction information.

The proposed project does not include maintenance activities which would result in long-term indirect energy consumption by equipment required to operate and maintain in the roadway. Thus, it is unlikely to increase indirect energy consumption though increased fuel usage.

The proposed project construction would primarily consume diesel and gasoline through operation of heavy-duty construction equipment, material deliveries, and debris hauling. As indicated above, energy use associated with proposed project construction is estimated to result in the total short-term consumption of 8,540 gallons from diesel-powered equipment and 6,674 gallons from gasoline-powered equipment. This demand would cease once construction is complete.

Moreover, construction-related energy consumption would be temporary and not a permanent new source of energy demand, and demand for fuel would have no noticeable effect on peak or baseline demands for energy. Therefore, the project would not result in an inefficient, wasteful, and unnecessary consumption of energy.

No Build Alternative

The existing condition would remain; therefore, per CEQA, “No Impact” would occur.

2.9 Geology and Soils

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

Question	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project: d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	No	No	No	Yes
Would the project: e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	No	No	No	Yes
Would the project: f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	No	No	No	Yes

"No Impact" and "Less Than Significant" determinations in this section are based on the scope, description, and location of the proposed project, as well as the California Geological Survey Regulatory Maps, the United States Department of Agriculture (USDA) Soil Conservation Service Soil Survey of Humboldt County, the Probabilistic Seismic Hazard Map for the North Coast from the California Seismic Safety Commission, and USDA Natural Resources Conservation Service Web Soil Survey.

Regulatory Setting—Geology and Soils

For geologic and topographic features, the key federal law is the Historic Sites Act of 1935, which establishes a national registry of natural landmarks and protects "outstanding examples of major geological features." Topographic and geologic features are also protected under CEQA.

This section also discusses geology, soils, and seismic concerns as they relate to public safety and project design. Earthquakes are prime considerations in the design and retrofit of structures. Caltrans' Office of Earthquake Engineering is responsible for assessing the seismic hazard for Caltrans projects. Structures are designed using Caltrans' Seismic Design Criteria (SDC). The SDC provides the minimum seismic requirements for highway bridges designed in California. A bridge's category and classification will determine its seismic performance level and which methods are used for estimating the seismic demands and structural capabilities. For more information, please see Caltrans' Division of Engineering Services, Office of Earthquake Engineering, Seismic Design Criteria.

Environmental Setting—Geology and Soils

The project area is located approximately one mile south west of the Goose Lake Fault and 2.89 miles from the Little Salmon Fault. The Goose Lake Fault and the Little Salmon Fault are considered both segments of the Little Salmon Fault Zone subsystem of the San Andreas Fault zone. The project area has not been identified for liquefiable soils however, the area is shown to consist of unconsolidated alluvium deposits which could hold potential for liquefaction. No active faults cross the project site and the project is not located in an area at high risk of landslides.

Discussion of Environmental Evaluation Questions 2.9a-e—Geology and Soils

a) i: Though the project area is within the Little Salmon Fault Zone, no active faults cross the project site. Therefore, the project would not rupture a known earthquake fault, and there would be no impact.

a) ii-iii: The project area is located approximately one mile south west of the Goose Lake Fault and 2.89 miles from the Little Salmon Fault. The Goose Lake Fault and the Little Salmon Fault are considered both segments of the Little Salmon Fault Zone. The Little Salmon fault zone is part of a broad, compressional thrust/fold belt developed in the accretionary wedge above the Cascadia subduction zone. Faults in in the zone are considered historically capable of producing small to moderate earthquakes minimal ground shaking in the project area and would typically produce less than significant impact.

   This adjacent area has not been evaluated for liquefaction hazards, however the general composition of the soils within the project area shown to consist of unconsolidated alluvium deposits which could hold potential for liquefaction. The proposed project would not expose people to injury or harm. A final foundation report would outline the required design measures to reduce the risks from liquefaction, settlement, and lateral spreading.

a) iv: According to the California Geologic Survey's Landslide Inventory, there is an instance of a historical debris flow along the northern slope adjacent to the project. However, the proposed project is not located in an area that is at a high risk of landslides, so there would be less than significant risk from landslide hazards.

b) Considerable earth-moving activities would be necessary to construct the project. Construction would include the construction of access roads and staging areas, placing of fill prisms, excavation of cut material, excavation of existing pavement, and excavation for drainage work. Earth-moving activities have the potential to cause soil erosion and loss of topsoil. Temporary construction site BMPs would be implemented as necessary to reduce the amount of erosion and topsoil loss.

In addition to temporary BMPs, permanent BMPs would be implemented after construction. The project would have a less than significant impact from soil erosion and the loss of topsoil.

c - d) Based on preliminary review of existing published geologic maps of the area, the project area consists of quaternary alluvium which is categorized as fine silty-loamy mixed soils. These soils may be susceptible to liquefaction and expansion under certain conditions. The primary scope of work will occur atop engineered soils consisting of Silty sand and gravel material used for pavement subgrade and existing culvert trench backfill. If future geotechnical investigations determine susceptible soils to be present, it would be addressed appropriately through design features. The project would be constructed to meet Caltrans safety and seismic standards, which would reduce the risk from unstable soils to people and structures.

e) The proposed project does not include the use of septic tanks or alternative waste water disposal systems. Therefore, there would be no impact.

Mitigation Measures—Geology and Soils

Based on the determinations made in the CEQA Checklist, mitigation measures have not been proposed for the project.

No Build Alternative—Geology and Soils

The existing condition would remain; therefore, per CEQA, “No Impact” would occur.

Regulatory Setting—Paleontological Resources

Several sections of the California Public Resources Code protect paleontological resources. Section 5097.5 prohibits “knowing and willful” excavation, removal, destruction, injury, and defacement of any paleontological feature on public lands (lands under state, county, city, district, or public authority jurisdiction, or the jurisdiction of a public corporation), except where the agency with jurisdiction has granted express permission. Section 30244 requires reasonable mitigation for impacts on paleontological resources that occur as a result of development on public lands.

Environmental Setting—Paleontological Resources

The project is not located in an area that would contain unique geologic features, therefore the project would have no impact on those features. Geology in the project area consists of Quaternary alluvium and is thus associated with the Pleistocene and Pliocene geologic epochs.

Discussion of Environmental Evaluation Question 2.9f—Paleontological Resources

f) The project is not located in an area that would contain unique geologic features, therefore the project would have no impact on those features. Geology in the project area is associated with the Pleistocene and Pliocene geologic epochs. Geology from these eras could contain paleontological resources, however there are no construction activities that would disturb any paleontological resources. Although improbable, any unanticipated find of a paleontological resource would follow Caltrans standard specifications for paleontological resources. No impact is anticipated to paleontological resources because of project activities.

Mitigation Measures—Paleontological Resources

Based on the determinations made in the CEQA Checklist, mitigation measures have not been proposed for the project.

No Build Alternative—Paleontological Resources

The existing condition would remain; therefore, per CEQA, “No Impact” would occur.

2.10 Greenhouse Gas Emissions

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

Climate Change

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to greenhouse gas (GHG) emissions, particularly those generated from the production and use of fossil fuels.

While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change (IPCC) by the United Nations and World Meteorological Organization in 1988 led to increased efforts devoted to GHG emissions reduction and climate change research and policy. These efforts are primarily concerned with the emissions of GHGs generated by human activity, including 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 component of Earth's atmosphere, fossil-fuel combustion is the main source of additional, human-generated CO_2.

Two terms are typically used when discussing how we address the impacts of climate change: "greenhouse gas mitigation" and "adaptation." GHG mitigation covers the activities and policies aimed at reducing GHG emissions to limit or "mitigate" the impacts of climate change. Adaptation, on the other hand, is concerned with planning for and responding to impacts resulting from climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels). This analysis will include a discussion of both.

REGULATORY SETTING

This section outlines federal and state efforts to comprehensively reduce GHG emissions from transportation sources.

Federal

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

The NEPA (42 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.

FHWA recognizes the threats that extreme weather, sea-level change, and other changes in environmental conditions pose to valuable transportation infrastructure and those who depend on it. FHWA therefore supports a sustainability approach that assesses vulnerability to climate risks and incorporates resilience into planning, asset management, project development and design, and operations and maintenance practices (FHWA 2019). This approach encourages planning for sustainable highways by addressing climate risks while balancing environmental, economic, and social values—"the triple bottom line of sustainability" (FHWA n.d.). Program and project elements that foster sustainability and resilience also support economic vitality and global efficiency, increase safety and mobility, enhance the environment, promote energy conservation, and improve the quality of life.

Various efforts have been promulgated at the federal level to improve fuel economy and energy efficiency to address climate change and its associated effects. The most important of these was the Energy Policy and Conservation Act of 1975 (42 USC Section 6201) and Corporate Average Fuel Economy (CAFE) Standards. This act establishes fuel economy standards for on-road motor vehicles sold in the United States. Compliance with federal fuel economy standards is determined through the CAFE program on the basis of each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the United States.

Energy Policy Act of 2005, 109th Congress H.R.6 (2005–2006): This act sets forth an energy research and development program covering: (1) energy efficiency; (2) renewable energy; (3) oil and gas; (4) coal; (5) the establishment of the Office of Indian Energy Policy and Programs within the Department of Energy; (6) nuclear matters and security; (7) vehicles and motor fuels, including ethanol; (8) hydrogen; (9) electricity; (10) energy tax incentives; (11) hydropower and geothermal energy; and (12) climate change technology.

The U.S. EPA in conjunction with the National Highway Traffic Safety Administration (NHTSA) is responsible for setting GHG emission standards for new cars and light-duty vehicles to significantly increase the fuel economy of all new passenger cars and light trucks sold in the United States. Fuel efficiency standards directly influence GHG emissions.

State

California has been innovative and proactive in addressing GHG emissions and climate change by passing multiple Senate and Assembly bills and EOs including, but not limited to, the following:

EO S-3-05 (June 1, 2005): The goal of this EO is to reduce California's GHG emissions to: (1) year 2000 levels by 2010, (2) year 1990 levels by 2020, and (3) 80 percent below year 1990 levels by 2050. This goal was further reinforced with the passage of Assembly Bill (AB) 32 in 2006 and Senate Bill (SB) 32 in 2016.

AB 32, Chapter 488, 2006, Núñez and Pavley, The Global Warming Solutions Act of 2006: AB 32 codified the 2020 GHG emissions reduction goals outlined in EO S-3-05, while further mandating that the California ARB create a scoping plan and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." The Legislature also intended that the statewide GHG emissions limit continue in existence and be used to maintain and continue reductions in emissions of GHGs beyond 2020 (Health and Safety Code [H&SC] Section 38551(b)). The law requires ARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions.

EO S-01-07 (January 18, 2007): This order sets forth the low carbon fuel standard (LCFS) for California. Under this EO, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by the year 2020. ARB re-adopted the LCFS regulation in September 2015, and the changes went into effect on January 1, 2016. The program establishes a strong framework to promote the low-carbon fuel adoption necessary to achieve the Governor's 2030 and 2050 GHG reduction goals.

SB 375, Chapter 728, 2008, Sustainable Communities and Climate Protection: This bill requires ARB to set regional emissions reduction targets for passenger vehicles. The Metropolitan Planning Organization (MPO) for each region must then develop a "Sustainable Communities Strategy" (SCS) that integrates transportation, land-use, and housing policies to plan how it will achieve the emissions target for its region.

SB 391, Chapter 585, 2009, California Transportation Plan: This bill requires the State's long-range transportation plan to identify strategies to address California's climate change goals under AB 32.

EO B-16-12 (March 2012) orders State entities under the direction of the Governor, including ARB, the California Energy Commission, and the Public Utilities Commission, to support the rapid commercialization of zero-emission vehicles. It directs these entities to achieve various benchmarks related to zero-emission vehicles.

EO B-30-15 (April 2015) establishes an interim statewide GHG emission reduction target of 40 percent below 1990 levels by 2030 to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050. It further orders all state agencies with jurisdiction over sources of GHG emissions to implement measures, pursuant to statutory authority, to achieve reductions of GHG emissions to meet the 2030 and 2050 GHG emissions reductions targets. It also directs ARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent ($MMTCO_2e$).[2] Finally, it requires the Natural Resources Agency to update the state's climate adaptation strategy, *Safeguarding California*, every 3 years, and to ensure that its provisions are fully implemented.

SB 32, Chapter 249, 2016, codifies the GHG reduction targets established in EO B-30-15 to achieve a mid-range goal of 40 percent below 1990 levels by 2030.

SB 1386, Chapter 545, 2016, declared "it to be the policy of the state that the protection and management of natural and working lands … is an important strategy in meeting the state's greenhouse gas reduction goals, and would require all state agencies, departments, boards, and commissions to consider this policy when revising, adopting, or establishing policies, regulations, expenditures, or grant criteria relating to the protection and management of natural and working lands."

AB 134, Chapter 254, 2017, allocates Greenhouse Gas Reduction Funds and other sources to various clean vehicle programs, demonstration/pilot projects, clean vehicle rebates and projects, and other emissions-reduction programs statewide.

[2] GHGs differ in how much heat each trap in the atmosphere (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" (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.

Senate Bill 743, Chapter 386 (September 2013): This bill changes the metric of consideration for transportation impacts pursuant to CEQA from a focus on automobile delay to alternative methods focused on vehicle miles travelled, to promote the state's goals of reducing greenhouse gas emissions and traffic related air pollution and promoting multimodal transportation while balancing the needs of congestion management and safety.

Senate Bill 150, Chapter 150, 2017, Regional Transportation Plans: This bill requires ARB to prepare a report that assesses progress made by each metropolitan planning organization in meeting their established regional greenhouse gas emission reduction targets.

EO B-55-18, (September 2018) sets a new statewide goal to achieve and maintain carbon neutrality no later than 2045. This goal is in addition to existing statewide targets of reducing GHG emissions.

EO N-19-19 (September 2019) advances California's climate goals in part by directing the California State Transportation Agency to leverage annual transportation spending to reverse the trend of increased fuel consumption and reduce GHG emissions from the transportation sector. It orders a focus on transportation investments near housing, managing congestion, and encouraging alternatives to driving. This EO also directs ARB to encourage automakers to produce more clean vehicles, formulate ways to help Californians purchase them, and propose strategies to increase demand for zero-emission vehicles.

ENVIRONMENTAL SETTING

The project is located near the old town of Alton and Fortuna, a census designated area in Humboldt County. Throughout the project area SR 36 is classified as a two-lane conventional highway. In Humboldt County, SR 36 is an east-west state highway that extends from the US 101 interchange in the old town of Alton to the Trinity County border and beyond parallel to the Van Duzen River.

Land use and development is governed by the FGP and the Humboldt County General Plan. Land use near the proposed project is designated in the FGP as agricultural, industrial, commercial, and rural residential. According to Humboldt County zoning maps, land near the proposed project is zoned as agriculture exclusive, neighborhood/industrial commercial, heavy/limited industrial, and rural and one-family residential. The *Humboldt County Regional Transportation Plan* (RTP) guides transportation development in the project area.

A GHG emissions inventory estimates the amount of GHGs discharged into the atmosphere by specific sources over a period of time, such as a calendar year. 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 ARB does so for the state, as required by H&SC Section 39607.4.

National GHG Inventory

The U.S. EPA prepares a national GHG inventory every year and submits it to the United Nations in accordance with the Framework Convention on Climate Change. The inventory provides a comprehensive accounting of all human-produced sources of GHGs in the United States, reporting emissions of CO_2, CH_4, N_2O, HFCs, perfluorocarbons, SF_6, and nitrogen trifluoride. It also accounts for emissions of CO_2 that are removed from the atmosphere by "sinks" such as forests, vegetation, and soils that uptake and store CO_2 (carbon sequestration). The 1990–2016 inventory found that of 6,511 $MMTCO_2e$ GHG emissions in 2016, 81% consist of CO_2, 10% are CH_4, and 6% are N_2O; the balance consists of fluorinated gases (U.S. EPA 2018). In 2016, GHG emissions from the transportation sector accounted for nearly 28.5% of U.S. GHG emissions.

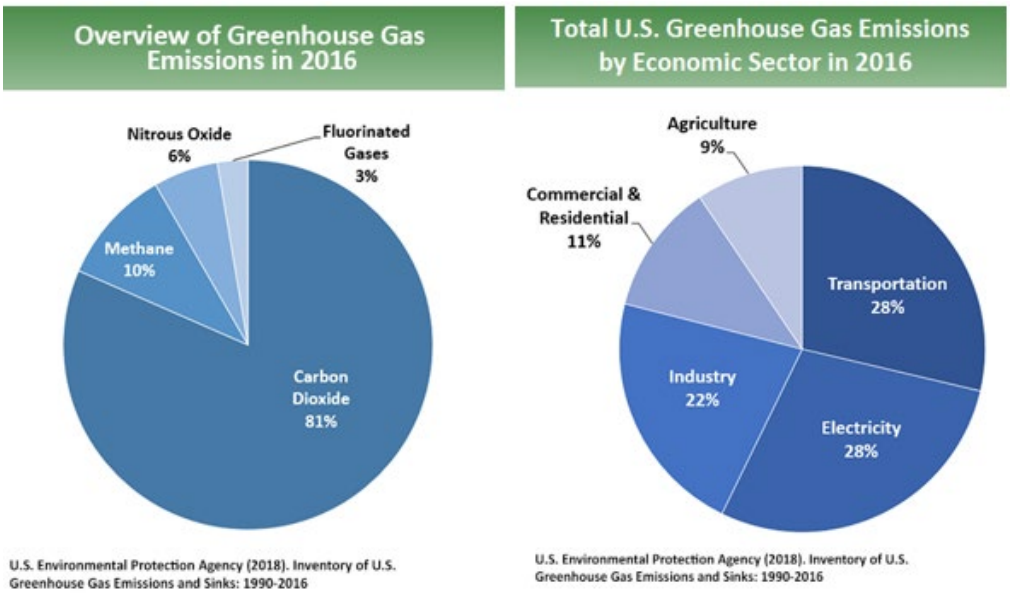


Figure 3: U.S. 2016 Greenhouse Gas Emissions

State GHG Inventory

ARB 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. The 2019 edition of the GHG emissions inventory

found total California emissions of 424.1 MMTCO2e for 2017, with the transportation sector responsible for 41% of total GHGs. It also found that overall statewide GHG emissions declined from 2000 to 2017 despite growth in population and state economic output (ARB 2019a).

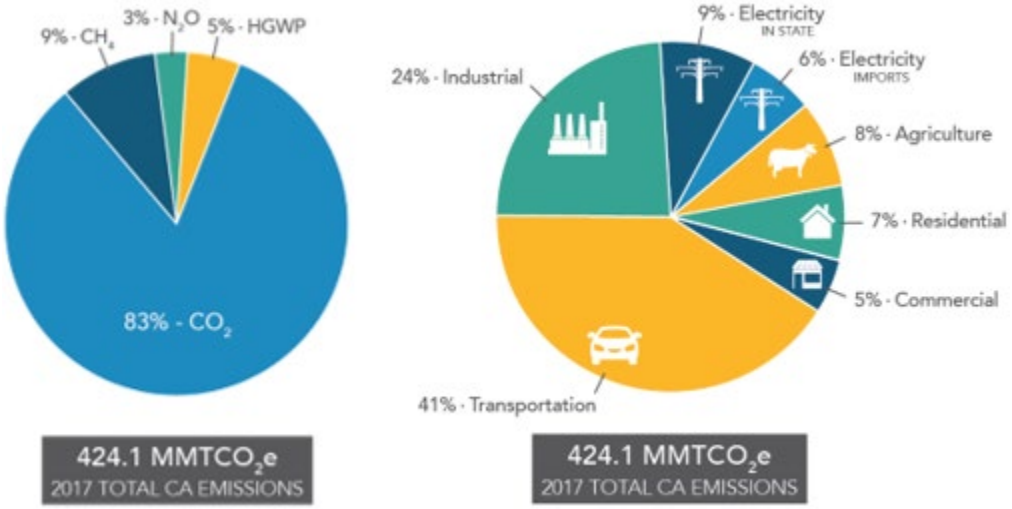


Figure 4: California 2017 Greenhouse Gas Emissions

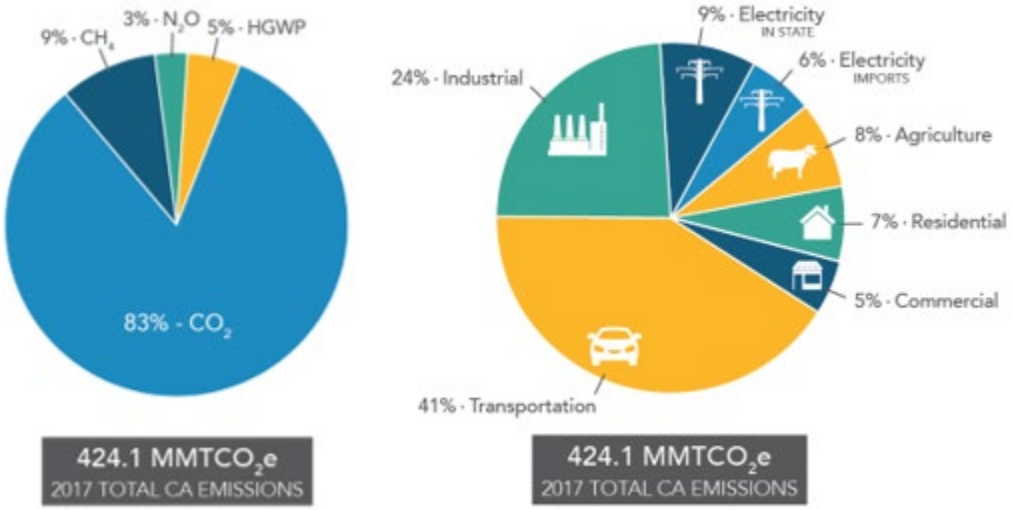


Figure 5: Change In California GDP, Population and GHG Emissions Since 2000

AB 32 required ARB 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. ARB adopted the first scoping plan in 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 AB 32 Scoping Plan and the subsequent updates contain the main strategies California will use to reduce GHG emissions.

Regional Plans

The *2017 Humboldt County RTP* includes policies on climate change and the environment. The RTP offers a comprehensive transportation strategy that, among other things, is intended to reduce GHGs by reducing vehicle miles traveled. Goals include reducing GHG emissions contributed by transportation while building and maintaining a transportation system that is truly multimodal and equitable. In addition, the RTP aims to minimize the negative health, social, economic, and environmental impacts caused by global climate change and sea-level rise.

The City of Fortuna encompasses Alton in its sphere of influence. The FGP includes the following GHG-related policies (City of Fortuna 2010).

- **HS-3.5 Restoration for Greenhouse Gases Absorption.** Foster and restore forests and other terrestrial ecosystems that offer significant carbon mitigation potential.
- **HS-3.6 Greenhouse Gas Emissions Reduction from Transportation.** The City shall increase clean-fuel use, promote transit-oriented development and alternative modes of transportation, and reduce travel demand.

The Humboldt County General Plan (2017) includes the following GHG goals and policies.

- Through the General Plan and participation in a countywide Climate Action Plan, the County intends to reduce GHG emissions in the unincorporated area resulting from its discretionary land use decisions to 10% below 2003 levels by 2020. Air quality considerations, including GHG emissions, are reflected in policies within the Land Use, Circulation, Energy, and Safety elements and in the Mineral Resources Chapter of the Conservation and Open Space elements.
- **Chapter 15, Air Quality:**
    - **Goal AQ-G4.** GHG Emissions. Successful mitigation of GHG emissions associated with this Plan to levels of non-significance as established by the Global Warming Solutions Act and subsequent implementation of legislation and regulations.
    - **Policy AQ-P17.** Preservation and Replacement of On-site Trees. Projects requiring discretionary review should preserve large trees, where possible, and mitigate for carbon storage losses attributable to significant removal of trees.
- **Chapter 7, Circulation Element:**
    - This Plan supports improvements that accommodate bicycles, pedestrians, and the mobility-challenged population. Development of

bicycle and pedestrian facilities can reduce vehicle miles traveled, enhance communities, increase the opportunities for an active and therefore healthy lifestyle, and reduce GHG emissions.

In January 2012, Humboldt County published *Draft Climate Action Plan for the General Plan Update*. A plan goal was to establish a CO_2 or GHG emission reduction target of limiting GHG emissions in unincorporated Humboldt County to the equivalent of 1990 emissions by 2020. It anticipated achieving this in part by "identify[ing] and prioritiz[ing] infrastructure improvements needed to support reduction is vehicle miles traveled" and by collaborating with other jurisdictions and the RTPA to increase the use of alternative transportation (Humboldt County 2012). The climate action plan effort continued in 2019 when Humboldt County, the Redwood Coast Energy Authority, and local governments including Fortuna partnered to take a regional approach to climate action planning. Public workshops were scheduled through 2019 and into 2020 (Humboldt County n.d.).

PROJECT ANALYSIS

GHG emissions from transportation projects can be divided into those produced during operation of the SHS 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 the combustion of petroleum-based products, like gasoline, in internal combustion engines. Relatively small amounts of CH_4 and N_2O are emitted during fuel combustion. In addition, a small amount of HFC emissions are included in the transportation sector.

The CEQA Guidelines generally address GHG emissions as a cumulative impact due to the global nature of climate change (Pub. 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 GHG must necessarily be found to contribute to a significant cumulative impact on the environment.

Operational Emissions

The proposed project will improve traffic flow and safety along this section of road. These improvements will most likely result in an overall reduction in GHG emitted since they will improve traffic flow without adding capacity or increasing vehicle miles traveled. The estimation of GHG emissions with the project was conducted using Caltrans' CT-EMFAC model and vehicle activity data. Emission of CO_2 was modeled for opening (2021) and design (2035) year conditions. Carbon dioxide production would be reduced 5.3% in the year of 2035 compared to the opening year of 2021 based on the calculation with Greenhouse Gas Analysis Protocol 2013 using CT-EMFAC. Therefore, this project will not interfere with the strategies of the Department's Climate Action Program.

Construction Emissions

Construction GHG emissions would result from material processing, 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.

In addition, with innovations such as longer pavement lives, improved traffic management plans, and changes in materials, the GHG emissions produced during construction can be offset to some degree by longer intervals between maintenance and rehabilitation activities.

The Sacramento Metropolitan Air Quality Management District's Road Construction Emissions Model (8.1.0) was used to estimate CO_2, methane (CH_4), and nitrous oxide (N_2O) emissions from construction activities. Table 1 summarize estimated GHG emissions generated by on-site equipment for the project.

Table 5: GHG Emissions from Construction of the Alton Shoulder Widening Project

Construction Year	CO_2	CH_4	N_2O	CO_{2e}
2020	1279	<1	<1	1279

Implementation of the following measures, 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.

- 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.

- Utilize a traffic management plan to minimize vehicle delays and idling emissions.

- To the extent feasible, 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.

CEQA CONCLUSION

While the proposed project would result in 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 greenhouse gases. With implementation of construction GHG-reduction measures, the impact would be less than significant.

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

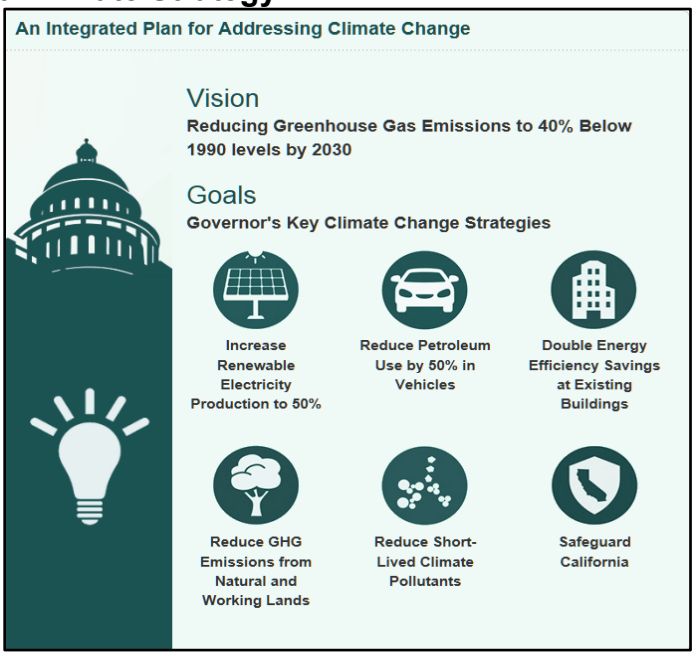
GREENHOUSE GAS REDUCTION STRATEGIES

Statewide Efforts

Major sectors of the California economy, including transportation, will need to reduce emissions to meet the 2030 and 2050 GHG emissions targets. Former Governor Edmund G. Brown promoted GHG reduction goals that involved (1) reducing today’s petroleum use in cars and trucks by up to 50 percent; (2) increasing from one-third to 50

percent our electricity derived from renewable sources; (3) doubling the energy efficiency savings achieved at existing buildings and making heating fuels cleaner; (4) reducing the release of methane, black carbon, and other short-lived climate pollutants; (5) managing farms and rangelands, forests, and wetlands so they can store carbon; and (6) periodically updating the state's climate adaptation strategy, *Safeguarding California*.

Figure 6: California Climate Strategy



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). A key state goal for reducing GHG emissions goal for reducing GHG emissions is to reduce today's petroleum use in cars and trucks by up to 50 percent by 2030 (State of California 2019).

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.

Caltrans Activities

Caltrans continues to be involved on the Governor’s Climate Action Team as the ARB 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 (2016), set an interim target to cut GHG emissions to 40 percent below 1990 levels by 2030. The following major initiatives are underway at Caltrans to help meet these targets.

California Transportation Plan (CTP 2040)

The California Transportation Plan (CTP) is a statewide, long-range transportation plan to meet our future mobility needs and reduce GHG emissions. In 2016, Caltrans completed the *California Transportation Plan 2040*, which establishes a new model for developing ground transportation systems, consistent with CO_2 reduction goals. It serves as an umbrella document for all the other statewide transportation planning documents. Over the next 25 years, California will be working to improve transit and reduce long-run repair and maintenance costs of roadways and developing a comprehensive assessment of climate-related transportation demand management and new technologies rather than continuing to expand capacity on existing roadways.

SB 391 (Liu 2009) requires the CTP to meet California's climate change goals under AB 32. Accordingly, the CTP 2040 identifies the statewide transportation system needed to achieve maximum feasible GHG emission reductions while meeting the state's transportation needs. While MPOs have primary responsibility for identifying land use patterns to help reduce GHG emissions, CTP 2040 identifies additional strategies in Pricing, Transportation Alternatives, Mode Shift, and Operational Efficiency.

Caltrans Strategic Management Plan

The Strategic Management Plan, released in 2015, creates a performance-based framework to preserve the environment and reduce GHG emissions, among other goals. Specific performance targets in the plan that will help to reduce GHG emissions include:

- Increasing percentage of non-auto mode share
- Reducing VMT
- Reducing Caltrans' internal operational (buildings, facilities, and fuel) GHG emissions

Funding and Technical Assistance Programs

In addition to developing plans and performance targets to reduce GHG emissions, Caltrans also administers several sustainable transportation planning grants. These grants encourage local and regional multimodal transportation, housing, and land use

planning that furthers the region's RTP/SCS; contribute to the State's GHG reduction targets and advance transportation-related GHG emission reduction project types/strategies; and support other climate adaptation goals (e.g., *Safeguarding California*).

CALTRANS POLICY DIRECTIVES AND OTHER INITIATIVES

Caltrans Director's Policy 30 (DP-30) Climate Change (June 22, 2012) is intended to establish a Department policy that will ensure coordinated efforts to incorporate climate change into Departmental decisions and activities. Caltrans Activities to Address Climate Change (April 2013) provides a comprehensive overview of Caltrans' statewide activities to reduce GHG emissions resulting from agency operations.

Project-Level GHG Reduction Strategies

The following measures will also be implemented in the project 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.

- 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.

- During culvert replacement, public traffic may be stopped in both directions for periods not to exceed 10 minutes. After each closure, all accumulated traffic must be allowed to pass through the work zone before another closure is made.

- 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.

- Utilize a traffic 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.

ADAPTATION

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 that a facility be relocated or redesigned. 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 U.S. Global Change Research Program (USGRCP) delivers a report to Congress and the President every 4 years, in accordance with the Global Change Research Act of 1990 (15 U.S.C. ch. 56A § 2921 et seq). The Fourth National Climate Assessment, published in 2018, presents the foundational science and the "human welfare, societal, and environmental elements of climate change and variability for 10 regions and 18 national topics, with particular attention paid to observed and projected risks, impacts, consideration of risk reduction, and implications under different mitigation pathways." Chapter 12, "Transportation," presents a key discussion of vulnerability assessments. It notes that "asset owners and operators have increasingly conducted more focused studies of particular assets that consider multiple climate hazards and scenarios in the context of asset-specific information, such as design lifetime" (USGCRP 2018).

U.S. Department of Transportation (DOT) Policy Statement on Climate Adaptation in June 2011 committed the federal DOT to "integrate consideration of climate change impacts and adaptation into the planning, operations, policies, and programs of DOT in order to ensure that taxpayer resources are invested wisely, and that transportation infrastructure, services and operations remain effective in current and future climate conditions." (U.S. DOT 2011).

FHWA order 5520 (*Transportation System Preparedness and Resilience to Climate Change and Extreme Weather Events,* December 15, 2014) established FHWA policy

to strive to identify the risks of climate change and extreme weather events to current and planned transportation systems. FHWA has developed guidance and tools for transportation planning that foster resilience to climate effects and sustainability at the federal, state, and local levels (FHWA 2019).

State Efforts

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system. *California's Fourth Climate Change Assessment* (2018) is the state's latest effort to "translate the state of climate science into useful information for action" in a variety of sectors at both statewide and local scales. It adopts the following key terms used widely in climate change analysis and policy documents:

Adaptation to climate change refers to adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.

- *Adaptive capacity* is the "combination of the strengths, attributes, and resources available to an individual, community, society, or organization that can be used to prepare for and undertake actions to reduce adverse impacts, moderate harm, or exploit beneficial opportunities."

- *Exposure* is the presence of people, infrastructure, natural systems, and economic, cultural, and social resources in areas that are subject to harm.

- Resilience is the "capacity of any entity – an individual, a community, an organization, or a natural system – to prepare for disruptions, to recover from shocks and stresses, and to adapt and grow from a disruptive experience". Adaptation actions contribute to increasing resilience, which is a desired outcome or state of being.

- *Sensitivity* is the level to which a species, natural system, or community, government, etc., would be affected by changing climate conditions.

- *Vulnerability* is the "susceptibility to harm from exposure to stresses associated with environmental and social change and from the absence of capacity to adapt." Vulnerability can increase because of physical (built and environmental), social, political, and/or economic factor(s). These factors include, but are not limited to: ethnicity, class, sexual orientation and identification, national origin, and income inequality. Vulnerability is often defined as the combination of

sensitivity and adaptive capacity as affected by the level of exposure to changing climate.

Several key state policies have guided climate change adaptation efforts to date. Recent state publications produced in response to these policies draw on these definitions.

EO S-13-08, issued by then-governor Arnold Schwarzenegger in November 2008, focused on sea-level rise and resulted in the *California Climate Adaptation Strategy* (2009), updated in 2014 as *Safeguarding California: Reducing Climate Risk* (Safeguarding California Plan). The Safeguarding California Plan offers policy principles and recommendations and continues to be revised and augmented with sector-specific adaptation strategies, ongoing actions, and next steps for agencies.

EO S-13-08 also led to the publication of a series of sea-level rise assessment reports and associated guidance and policies. These reports formed the foundation of an interim *State of California Sea-Level Rise Interim Guidance Document* (SLR Guidance) in 2010, with instructions for how state agencies could incorporate "sea-level rise (SLR) projections into planning and decision making for projects in California" in a consistent way across agencies. The guidance was revised and augmented in 2013. *Rising Seas in California – An Update on Sea-Level Rise Science* was published in 2017 and its updated projections of sea-level rise and new understanding of processes and potential impacts in California were incorporated into the *State of California Sea-Level Rise Guidance Update* in 2018.

EO B-30-15, signed in April 2015, requires state agencies to factor climate change into all planning and investment decisions. This EO recognizes that effects of climate change other than sea-level rise also threaten California's infrastructure. At the direction of EO B-30-15, the Office of Planning and Research published *Planning and Investing for a Resilient California: A Guidebook for State Agencies* in 2017, to encourage a uniform and systematic approach. Representatives of Caltrans participated in the multi-agency, multidisciplinary technical advisory group that developed this guidance on how to integrate climate change into planning and investment.

AB 2800 (Quirk 2016) created the multidisciplinary Climate-Safe Infrastructure Working Group, which in 2018 released its report, *Paying it Forward: The Path Toward Climate-Safe Infrastructure in California*. The report provides guidance to agencies on how to address the challenges of assessing risk in the face of inherent uncertainties still posed by the best available science on climate change. It also examines how state agencies can use infrastructure planning, design, and implementation processes to address the observed and anticipated climate change impacts.

Caltrans Adaptation Efforts

Caltrans Vulnerability Assessments

Caltrans is conducting climate change vulnerability assessments to identify segments of the State Highway System vulnerable to climate change effects including precipitation, temperature, wildfire, storm surge, and sea-level rise. The approach to the vulnerability assessments was tailored to the practices of a transportation agency, and involves the following concepts and actions:

- *Exposure* – Identify Caltrans assets exposed to damage or reduced service life from expected future conditions.
- *Consequence* – Determine what might occur to system assets in terms of loss of use or costs of repair.
- *Prioritization* – Develop a method for making capital programming decisions to address identified risks, including considerations of system use and/or timing of expected exposure.

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 will guide analysis of at-risk assets and development of adaptation plans to reduce the likelihood of damage to the State Highway System, allowing Caltrans to both reduce the costs of storm damage and to provide and maintain transportation that meets the needs of all Californians.

Project Adaptation Analysis

Sea-Level Rise

The proposed project is 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.

Floodplains

The project area is adjacent to the Van Duzen River floodplain. The westernmost portion, from PM 0.1 to PM 0.3 is within a Zone A floodplain (areas inundated by the 100-year flood for which no Base Flood Elevations have been determined). The rest of the project limits lie within Zone C, outside the 100-year and 500-year floodplains. The

project elevation is approximately 66 ft. above mean sea level, but outside the area that could be affected by as much as 6 ft. of sea-level rise, as indicated by visualization using the NOAA Sea-Level Rise Viewer tool.

Caltrans will comply with the following 2017 Humboldt County General Plan goals, policies, and standards regarding floodplains and water resources.

- **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 storm water pollution."
- **Water Resources Element Policy WR-P38. New Drainage Facilities.** Where it is necessary to develop additional drainage facilities, they shall be designed to be as natural in appearance and function as is feasible. All drainage facilities shall be designed to maintain maximum natural habitat of streams and their streamside management areas and buffers.

Climate change is expected to bring fewer but potentially heavier individual precipitation events in the project region. Project elements include upsizing or replacing and lengthening culverts to improve drainage even under potentially higher precipitation and runoff scenarios.

WILDFIRE

The project corridor is adjacent to a State Responsibility Area designated a moderate fire hazard severity zone. Project limits traverse a developed area of agricultural, riparian, and ruderal habitat.

It is the policy of District 1 to not expose plastic pipe to fire hazard, therefore downdrains would be made of metal and would be constructed so that connections with any plastic pipe cross drain would be below ground. Culvert liners would be grouted and buried below fill. The project would not result in changes to the highway facilities or environment that could exacerbate wildfire risk.

2.11 Hazards and Hazardous Materials

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

"No Impact" and "Less Than Significant" determinations in this section are based on the scope, description, and location of the proposed project, as well as the Initial Site Assessment dated September 18, 2019.

Regulatory Setting

California regulates hazardous materials, waste, and substances under the authority of the California Health and Safety Code and is also authorized by the federal government to implement Resource Conservation and Recovery Act (RCRA) in the state. California law also addresses specific handling, storage, transportation, disposal, treatment, reduction, cleanup and emergency planning of hazardous waste. The Porter-Cologne Water Quality Control Act also restricts disposal of wastes and requires clean-up of wastes that are below hazardous waste concentrations but could impact ground and surface water quality. California regulations that address waste management and prevention and clean up contamination include 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.

Environmental Setting

The proposed project, which is not located within or impacting any sites on the Cortese List, is located in an area where there is a likelihood of contamination within the ESL from railway ballasts that intersect the project limits, a former lumber mill with an active logging yard, and from aerially deposited lead. This project includes demolition of an existing structure which is painted with lead containing paint.

Discussion of Environmental Evaluation Question 2.11—Hazards and Hazardous Materials

a - b) This project would not create a significant hazard to the public. Hazardous waste issues that may be or are confirmed at the project location are aerially deposited lead, thermoplastic paint, treated wood waste, potential petroleum hydrocarbon-impacted soil at the lumber mill/railroad ballasts and lead in an existing residential structure set to be demolished.

Low levels of aerially deposited lead from the historic use of leaded gasoline exist along roadways throughout California. The project would adhere to Caltrans Standard Special Provision Section 7-1.02K(6)(j)(iii) "Earth Material Containing Lead."

Thermoplastic paint may contain lead of varying concentrations depending upon color, type, and year of manufacture. Traffic stripes would be removed and disposed of in accordance with Caltrans Standard Special Provision Section 36-4 “Residue Containing Lead from Paint and Thermoplastic.”

Treated wood waste comes from old wood that has been treated with chemical preservatives to prevent fungal decay and insect attacks. Potential sources of treated wood waste within the project area are sign posts and guardrail. If treated wood waste is generated during this project, it would be disposed of in accordance with Standard Special Provision 14-11.14 “Treated Wood Waste.”

A limited Asbestos and Lead-Containing Paint Survey was also conducted for a structure that will need to be acquired and demolished to accommodate the proposed highway realignment. Interior and exterior paint sampled is considered a California hazardous waste based on led content. Written notification to the North Coast Unified Air Quality Management District is required prior to the commencement of any demolition activity. It will be required to use non-standard special provision (NSSP) 14-9.02 NESHAP NOTIFICATION in the specification package. In addition, the use of NSSP 14-11.17 REMOVAL AND MANAGEMENT OF LEAD PAINT ON UNOCCUPIED STRUCTURES will be required for the demolition of the surveyed structure.

Research and field reconnaissance found there is a likelihood of contamination within the ESL, from railway ballasts that intersect the project limits, a former lumber mill with an active logging yard. Soil sample collections were conducted at both locations. Diesel range organics and oil range organics were detected at both locations. Based on laboratory analysis results, no special handling of excavated soil material in the vicinity of the railroad ballast areas and the former lumber mill, with respect to petroleum hydrocarbons, is anticipated during construction. Consultation with the County of Humboldt Department of Environmental Health would be required if soil becomes property of the contractor, otherwise soil may be disposed of at a California licensed Class II/III landfill facility.

If obvious petroleum hydrocarbon-impacted soil conditions are encountered during construction excavations, these materials would be isolated, stockpiled and characterized to determine appropriate soil disposal options.

The proposed project would have a less than significant impact on public exposure to hazards. The project features mentioned above would be implemented if appropriate, and impacts would be further reduced.

c) No existing or proposed schools are present within one-quarter mile of the project area; therefore, there would be no impact to schools from hazardous emissions or hazardous or acutely hazardous materials.

d) This project is not located on a site which is included on a list of hazardous material sites pursuant to Government Code Section 65962.5, so there would be no impact from such sites.

e - f) This project is not located within an airport land use plan, within 2 miles of a public airport, or within the vicinity of a private airstrip. The project would not result in a safety hazard for people residing or working in the project area due to airport hazards, so there would be no impact.

g) This project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, so there would be no impact.

Mitigation Measures

Based on the determinations made in the CEQA Checklist, mitigation measures have not been proposed for the project.

No Build Alternative

The existing condition would remain; therefore, per CEQA, “No Impact” would occur.

2.12 Hydrology and Water Quality

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

"No Impact" and "Less Than Significant" determinations in this section are based on the scope, description, and location of the proposed project, as well as the Water Quality Assessment Report dated December 2018 and the Floodplain Evaluation Report Summary prepared June 20, 2017.

Regulatory Setting

Federal

Clean Water Act

In 1972, Congress amended the federal Water Pollution Control Act, making the addition of pollutants to waters of the United States from any point source[3] unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. This act and its amendments are known today as the Clean Water Act (CWA). Congress has amended the act several times. In the 1987 amendments, Congress directed dischargers of stormwater from municipal and industrial/construction point sources to comply with the NPDES permit program. The following are important CWA sections.

- Sections 303 and 304 require states to issue water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for a federal license or permit to conduct any activity that may result in a discharge to waters of the United States to obtain certification from the state that the discharge will comply with other provisions of the act. This is most frequently required in tandem with a Section 404 permit request (see below).
- Section 402 establishes the NPDES, a permitting system for the discharges (except for dredge or fill material) of any pollutant into waters of the United States. RWQCBs administer this permitting program in California. Section 402(p) requires permits for discharges of stormwater from industrial/construction and municipal separate storm sewer systems (MS4s).
- Section 404 establishes a permit program for the discharge of dredge or fill material into waters of the United States. This permit program is administered by USACE.

The goal of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."

[3] A *point source* is any discrete conveyance such as a pipe or a human-made ditch.

USACE issues two types of 404 permits: General and Standard Permits. There are two types of General Permits: Regional Permits and Nationwide Permits. Regional permits are issued for a general category of activities when they are similar and cause minimal environmental effect. Nationwide Permits are issued to allow a variety of minor project activities with no more than minimal effects.

Ordinarily, projects that do not meet the criteria for a Nationwide Permit may be permitted under one of USACE's Standard Permits. There are two types of Standard Permits: Individual Permits and Letters of Permission. For Standard Permits, the USACE decision to approve is based on compliance with EPA's Section 404 (b)(1) Guidelines (40 CFR § 230), and whether the permit approval is in the public interest. The Guidelines were developed by EPA in conjunction with USACE and allow the discharge of dredged or fill material into the aquatic system (waters of the United States) only if no practicable alternative exists that would have less adverse effects. The Guidelines state that USACE may not issue a permit if there is a least environmentally damaging practicable alternative to the proposed discharge that would have lesser effects to waters of the United States and not cause any other significant adverse environmental consequences.

According to the Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures has been followed, in that order. The Guidelines also restrict permitting activities that violate water quality or toxic effluent[4] standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause "significant degradation" to waters of the United States. In addition, every permit from the USACE, even if not subject to the Guidelines, must meet general requirements. See 33 CFR Part 320.4.

State

Porter-Cologne Water Quality Control Act

California's Porter-Cologne Water Quality Control Act (Porter-Cologne Act), enacted in 1969, provides the legal basis for water quality regulation in California. This act requires a "Report of Waste Discharge" for any discharge of waste (liquid, solid, or gaseous) to land or surface waters that may impair beneficial uses for surface and/or groundwater of the state. The act predates the CWA and regulates discharges to waters of the state. Waters of the state include more than just waters of the United States, such as groundwater and surface waters not considered waters of the United States. Additionally, the Porter-Cologne Act prohibits discharges of "waste" as defined and this definition is broader than the CWA definition of "pollutant." Discharges under

[4] The EPA defines *effluent* as "wastewater, treated or untreated, that flows out of a treatment plant, sewer, or industrial outfall."

the Porter-Cologne Act are permitted by WDRs and may be required even when the discharge is already permitted or exempt under the CWA.

The SWRCB and RWQCBs are responsible for establishing the water quality standards (objectives and beneficial uses) required by the CWA, and for regulating discharges to ensure compliance with the water quality standards. Details about water quality standards in a project area are included in the applicable RWQCB Basin Plan. In California, the RWQCBs designate beneficial uses for all water body segments and then set the criteria necessary to protect these uses. As a result, the water quality standards developed for particular water segments are based on the designated use and vary depending on that use. In addition, the SWRCB identifies waters failing to meet standards for specific pollutants. These waters are then state-listed in accordance with CWA Section 303(d). If a state determines that waters are impaired for one or more constituents and that the standards cannot be met through point source or non-point source controls (NPDES permits or WDRs), the CWA requires establishment of Total Maximum Daily Loads (TMDLs). TMDLs specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed.

State Water Resources Control Board and Regional Water Quality Control Boards

The SWRCB administers water rights, sets water pollution control policy, issues water board orders on matters of statewide application, and oversees water quality functions throughout the state by approving Basin Plans, TMDLs, and NPDES permits. RWQCBs are responsible for protecting beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility.

National Pollutant Discharge Elimination System Program

Municipal Separate Storm Sewer Systems

Section 402(p) of the CWA requires issuance of NPDES permits for five categories of stormwater discharges, including MS4s. An MS4 is defined as “any conveyance or system of conveyances (roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels, and storm drains) owned or operated by a state, city, town, county, or other public body having jurisdiction over stormwater, that is designed or used for collecting or conveying stormwater.” The SWRCB has identified Caltrans as an owner/operator of an MS4 under federal regulations. Caltrans’ MS4 Permit covers all Caltrans rights-of-way, properties, facilities, and activities in the state. The SWRCB or the RWQCB issues NPDES permits for five years, and permit requirements remain active until a new permit has been adopted.

Caltrans’ MS4 Permit (Order No. 2012-0011-DWQ) was adopted on September 19, 2012, and became effective on July 1, 2013. The permit has three basic requirements.

1. Caltrans must comply with the requirements of the Construction General Permit (see below);

2. Caltrans must implement a year-round program in all parts of the state to effectively control stormwater and non-stormwater discharges; and

3. Caltrans' stormwater discharges must meet water quality standards through implementation of permanent and temporary (construction) BMPs, to the maximum extent practicable, and other measures the SWRCB determines necessary to meet the water quality standards.

To comply with the permit, Caltrans developed the statewide Storm Water Management Plan (SWMP) to address stormwater pollution controls related to highway planning, design, construction, and maintenance activities throughout California. The SWMP assigns responsibilities within Caltrans for implementing stormwater management procedures and practices as well as training, public education and participation, monitoring and research, program evaluation, and reporting activities. The SWMP describes the minimum procedures and practices Caltrans uses to reduce pollutants in stormwater and non-stormwater discharges. It outlines procedures and responsibilities for protecting water quality, including selection and implementation of BMPs. Further, in recent years, hydromodification control requirements and measures to encourage low impact development have been included as a component of new development permit requirements. The proposed project will be programmed to follow the guidelines and procedures outlined in the latest SWMP to address stormwater runoff.

Construction General Permit

Construction General Permit (CGP) (Order No. 2009-009-DWQ), adopted on September 2, 2009, became effective on July 1, 2010. The CGP was amended by 2010-0014-DWQ and 2012-0006-DWQ on February 14, 2011, and July 17, 2012, respectively. The permit regulates stormwater discharges from construction sites that result in a disturbed soil area (DSA) of 1 acre or greater and/or are smaller sites that are part of a larger common plan of development. By law, all stormwater discharges associated with construction activity where clearing, grading, and excavation result in soil disturbance of at least 1 acre must comply with the provisions of the CGP. Operators of regulated construction sites are required to develop Storm Water Pollution Prevention Plans (SWPPPs); to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the CGP.

The 2009 CGP separates projects into Risk Levels 1, 2, or 3. Risk levels are determined during the planning and design phases, and are based on potential erosion and transport to receiving waters and whether the receiving water has been designated by the SWRCB as sediment-sensitive. SWPPP requirements vary according to the risk level. For example, a Risk Level 3 (highest risk) project would require compulsory stormwater runoff pH and turbidity monitoring and certain BMPs, and, in some cases, before-construction and after-construction aquatic biological assessments during specified seasonal windows. For all projects subject to the permit, applicants are required to develop and implement an effective SWPPP. In accordance with Caltrans' Standard Specifications, a Water Pollution Control Program rather than a SWPPP is necessary for projects with a DSA of less than 1 acre.

Section 401 Permitting

Under Section 401 of the CWA, any project requiring a federal license or permit that may result in a discharge to a water of the United States must obtain a 401 Certification, which certifies that the project will be in compliance with state water quality standards. The most common federal permits triggering a 401 Certification are CWA Section 404 permits issued by USACE. The 401 Certifications are obtained from the appropriate RWQCB, dependent on the project location, and are required before USACE issues a Section 404 permit.

In some cases, the RWQCB may have specific concerns with discharges associated with a project. As a result, the RWQCB may issue a set of requirements known as WDRs under the State Water Code (Porter-Cologne Act) that define activities, such as the inclusion of specific features, effluent limitations, monitoring, and plan submittals that are to be implemented for protecting or benefiting water quality. WDRs can be issued to address both permanent and temporary discharges of a project.

Environmental Setting

The project is located along SR 36 from PM 0.10 to PM 1.65 in the unincorporated area of Alton, south of the city of Eureka, in Humboldt County. From approximately PM 0.10 to PM 0.20, the project is located within the Lower Eel River Hydrologic Area, and Ferndale Hydrologic Subarea, with an area of 90,501 acres. From approximately PM 0.20 to PM 1.65, the project is located within the Van Duzen River Hydrologic Area, and Hydesville Hydrologic Subarea, with an area of 26,435 acres.

Wolverton Gulch crosses SR 36 at PM 1.62. Wolverton Gulch flows from north to south and is a tributary of the Van Duzen River. The Van Duzen River basin encompasses approximately 429 square miles and is located in the California Mountains of the North Coast Range, southeast of Eureka. The Van Duzen River is a major tributary to the Eel River, and the two rivers converge less than a mile west of the start of the Project. The Eel River flows northwesterly, discharging to the Pacific Ocean approximately 15 miles south of Eureka.

The average annual precipitation for this area is 39.57 inches. Most precipitation occurs from November to March. The average annual maximum temperature is 58.6°F and the average annual minimum temperature is 46.8°F for this area.

Discussion of Environmental Evaluation Question 2.12—Hydrology and Water Quality

a) From approximately PM 0.10 to PM 0.20, the project is located within the Lower Eel River Hydrologic Area, and Ferndale Hydrologic Subarea, with an area of 90,501 acres. From approximately PM 0.20 to PM 1.65, the project is located within the Van Duzen River Hydrologic Area, and Hydesville Hydrologic Subarea, with an area of 26,435 acres.
The Lower Eel River Hydrologic Area is listed as impaired for aluminum, dissolved oxygen, sedimentation and siltation, and water temperature. Additionally, the Van Duzen River Hydrologic Area is listed as impaired for sedimentation and siltation. Potential temporary impacts to water quality could result from active construction areas, which could lead to the release of fluids, concrete material, construction debris, sediment, and litter beyond the perimeter of the site.

   This project would not violate any water quality standards or waste discharge requirements. The proposed project would comply with the conditions of the California State Water Resources Control Board CGP. The CGP requires that the construction contractor prepare a project specific SWPPP, which identifies temporary construction site BMPs to reduce construction impacts on receiving water quality based on potential pollutants and pollutant sources. There would be no impact.

b) Groundwater baseflow impacts can potentially result from the Project. Dewatering of groundwater during construction may be necessary in areas near existing drainage features. These activities can result in a drawdown in groundwater, which can temporarily disrupt or alter baseflow. Impacts to baseflow and groundwater will be minimal and limited to the construction period.

   Temporary impacts to groundwater levels may occur but would be minimal and limited to the construction period. No permanent impacts are anticipated. The impacts are expected to be less than significant.

c)

   i. The project involves cut and fill, permanent grading of slopes, and alterations of existing drainage features, which may affect natural erosion and accretion patterns. Permanent impacts to erosion and accretion patterns from the project are anticipated to be minimal with implementation of standard erosion control practices and other project features A less than significant impact is expected.

ii. The increase in runoff, caused by a change in drainage patterns and the increase in impervious surfaces would not be substantial and would not cause substantial flooding with the construction of the new stormwater system of the project area and the application of temporary and permanent BMPs. The impact from an increase in surface runoff is expected to be less than significant.

iii. The proposed project would increase the amount of impervious surface area, which would increase the amount of runoff water. It is not anticipated that the amount of runoff water created would exceed the capacities of the planned stormwater system. Both the decrease in infiltration to groundwater that seeps into surface waters and the runoff from impervious surfaces that discharges into nearby waters would be addressed by post-construction stormwater treatment controls. The treatment controls would reduce pollutant loads in runoff prior to reaching any downstream receiving waters. The treatment controls will address potential stormwater impacts after construction is completed by reducing pollutant loads in runoff prior to reaching a downstream receiving water. The impact from additional stormwater and additional sources of polluted runoff is expected to be less than significant.

iv. The proposed project would increase the amount of impervious surface area, which would increase the amount of runoff water. The project would not permanently change drainage patterns or place structures in areas that would impede or redirect flood flows.

d) The proposed project is not in an area that is at risk of seiches or tsunamis. In the event of a catastrophic flood, the project area could be at risk of inundation. However, the project will not store pollutants and would not be constructed with hazardous materials that would pose a threat to the public if disturbed by a flood event. Therefore, no impact is expected.

e) The project would not conflict with or obstruct the implementation of any water pollution control plan or sustainable groundwater management plan. Therefore, no impact is expected.

f)

Mitigation Measures

Based on the determinations made in the CEQA Checklist, mitigation measures have not been proposed for the project.

No Build Alternative

The existing condition would remain; therefore, per CEQA, “No Impact” would occur.

2.13 Land Use and Planning

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

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project. Potential impacts to land use and planning are not anticipated due to the following:

a) The existing highway connects the old town of Alton and the US Route 101/SR 36 interchange to the west with rural areas and the community of Hydesville as well as the other communities along SR 36 beyond the Humboldt-Trinity County line. During the construction, the highway would remain open to two-way traffic, and no community division is anticipated. There would be no impact from physically dividing an established community.

b) The project complies with the stated goals of the Fortuna General Plan (FGP) and the Humboldt County General Plan. Which includes goals for transportation, pedestrian access and safety, and Freight Rail.

No Build Alternative

The existing condition would remain; therefore, per CEQA, "No Impact" would occur.

2.14 Mineral Resources

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

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the mineral resource maps from the California Department of Conservation. Potential impacts to mineral resources are not anticipated due to the following:

a - b) No mineral resources were identified within the project limits or would be affected by the proposed project. There would be no impact to mineral resources.

No Build Alternative

The existing condition would remain; therefore, per CEQA, "No Impact" would occur.

2.15 Noise

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

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the Air Quality and Noise Analysis dated October 16, 2017.

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies is not anticipated.

Based on the scope of work, this project is considered a Type III project. Traffic noise impact is not predicted to occur from the proposed project; therefore, noise abatement is not considered.

During construction, noise may be generated from the contractors' equipment and vehicles. Caltrans requires the Contractor to conform to the provisions of Standard Specification, Section 14-8.02 "Noise Control" which states "Control and monitor noise from work activities." And "Do not exceed 86 dBA LMax at 50 ft. from the job site activities from 9 p.m. to 6 a.m."

b) The project is not expected to generate excessive groundborne vibration or groundborne noise. Vibration levels could be perceptible and cause disturbances at residences near the project area during operation of heavy equipment. However, these effects would be short-term and intermittent and would cease once construction is completed.

c) The project is not located within the vicinity of a private, public, or public use airport. There would be no impact from airport noise.

No Build Alternative

The existing condition would remain; therefore, per CEQA, “No Impact” would occur.

2.16 Population and Housing

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

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project. Potential impacts to the population and housing are not anticipated due to the following:

a) The proposed project would not increase capacity or access; therefore, the proposed project would not directly or indirectly induce population growth in the area. The project would not add new homes or businesses and would not extend any roads or other infrastructure. There would be no impact.

b) Although some of the areas surrounding the project are rural residential communities, there are no residences within the project area, and no replacement housing would be necessary. There would be no impact.

No Build Alternative

The existing condition would remain; therefore, per CEQA, "No Impact" would occur.

2.17 Public Services

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

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project. Potential impacts to public resources are not anticipated due to the following:

a) During construction any emergency service agency whose ability to respond to incidents may be affected by traffic control would be notified prior to any closure. All emergency vehicles would be accommodated through the work area. There would be no impact to emergency services resulting from the project.

No Build Alternative

The existing condition would remain; therefore, per CEQA, "No Impact" would occur.

2.18 Recreation

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

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project. Potential impacts to recreation are not anticipated due to the following:

a) The project would not increase the use of existing neighborhood parks, regional parks, or other recreational facilities. No neighborhood parks, regional parks, or other recreational facilities are present within the project limits. There would be no impact to neighborhood or regional parks.

b) The project does not include recreational facilities or require the construction or expansion of recreational facilities. No neighborhood parks, regional parks, or other recreational facilities are present within the project limits. There would be no impact from the construction of recreational facilities.

No Build Alternative

The existing condition would remain; therefore, per CEQA, "No Impact" would occur.

2.19 Transportation/Traffic

Question	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project: a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	No	No	No	Yes
Would the project: b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)? NOTE: While public agencies may immediately apply Section 15064.3 of the updated Guidelines, statewide application is not required until July 1, 2020. In addition, uniform statewide guidance for Caltrans projects is still under development. The PDT may determine the appropriate metric to use to analyze traffic impacts pursuant to section 15064.3(b). Projects for which an NOP will be issued any time after December 28, 2018, should consider including an analysis of VMT/induced demand if the project has the potential to increase VMT (see page 20 of OPR's updated SB 743 Technical Advisory), particularly if the project will be approved after July 2020.	No	No	No	Yes
Would the project: c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	No	No	No	Yes
Would the project: d) Result in inadequate emergency access?	No	No	No	Yes

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the Transportation Management Plan dated May 29, 2018. Potential impacts to transportation/traffic are not anticipated due to the following:

a) The project is not anticipated to conflict with a program, plan, ordinance, or policy addressing the circulation system; therefore, there would be no impact.

b) The proposed project would not conflict or be inconsistent with CEQA Guidelines section 15064.3 subdivision (b). There would be no impact.

c) The project is designated as a Collision Severity Reduction Safety project. As such its intention is designed to make the highway safer for all uses within the

project extent. The preferred alternative would widen shoulders to 8 ft. and curve realignment will improve existing curves to radii ranging from 1,350 to11,000 ft. The highway profile will be lowered on the crests of two vertical curves (PM 0.53 and PM 1.32) to increase stopping sight distance to current standard. Therefore, the project would have no impact.

d) Two-way traffic would be maintained during most construction activities. However, for some activities reversing traffic control, intermittent closure (no longer than 10 minutes), temporary ramp closure, and shoulder closure could be necessary for SR 36. Emergency vehicles would be notified in advance of any closures. Access for emergency vehicles would be maintained throughout the duration of construction; therefore, the project would have no impact on emergency access.

No Build Alternative

The existing condition would remain; therefore, per CEQA, “No Impact” would occur.

2.20 Tribal Cultural Resources

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

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the results presented in the Historic Property Survey Report. Potential impacts to tribal resources are not anticipated due to the following:

a - b) The California Native American Heritage Commission (NAHC) was contacted to request a search of the sacred lands file and an updated list of Native American contacts for the project area. Consultation letters were mailed to representatives of the Bear River Band of the Rohnerville Rancheria, Big Lagoon Rancheria, Blue Lake Rancheria, Cher-Ae Heights Indian Community of the Trinidad Rancheria, Hoopa Valley Tribe, Karuk Tribe, Round Valley Indian Tribes of the Round Valley Reservation, Tsnungwe Council, Wiyot Tribe, and the Yurok Tribe. The tribes that responded did not express any concerns with the project. The NAHC search

also determined that no tribal cultural resources were identified within the project study limits. Therefore, there will be no impacts to tribal cultural resources.

No Build Alternative

The existing condition would remain; therefore, per CEQA, “No Impact” would occur.

2.21 Utilities and Service Systems

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

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project. Potential impacts to tribal resources are not anticipated due to the following:

Discussion of Environmental Evaluation Question 2.23—Mandatory Findings of Significance

a) The utilities expected to be encountered are described in Section 1 of this document. Any utility poles or underground gas lines expected to be in conflict with the proposed work would be relocated, modified or protected in place during

construction. Caltrans would verify the location of any underground gas, electric, water, or sewer lines within the project area. Caltrans would coordinate with utility owners to relocate or protect utilities prior to construction. Utility relocation plans would be finalized in the design phase of the project. A less than significant impact to the environment is anticipated from utility relocations.

b) The project would have sufficient water supplies during construction and would not have an effect on water supplies for future developments. There would be no impact.

c) The project would not have a demand for wastewater treatment, so there would be no impact.

d - e) The project would comply with all statutes and regulations related to the disposal of solid waste generated during construction, so there would be no impact.

No Build Alternative

The existing condition would remain; therefore, per CEQA, “No Impact” would occur.

2.22 Wildfire

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

"No Impact" determinations in this section are based on the scope, description, location, and CalFire Fire Hazard Severity Zone Maps of the proposed project. Potential impacts to wildfire are not anticipated due to the following:

a) The proposed project is in both a state responsibility area of moderate fire hazard severity and a local responsibility area of moderate fire hazard severity. The Humboldt County Emergency Operations Plan was approved by the County of Humboldt Board of Supervisors in March 2015. The project would not substantially impair this plan since the existing structures and roadway would

remain open to two-way traffic during construction. Therefore, there would be no impact.

b) The proposed project would incorporate design features to prevent the uncontrolled spread of a wildfire within the project area. These design features would include non-plastic culverts. In addition, the project proposes to widen SR 36, which would improve the intersection's use as a firebreak if needed. There would be no impact.

c) The proposed project work consists of road widening and curve improvement to reduce the risk of "run-off-road" collisions in the area and would not exacerbate wildfire risk. In addition, the utility relocation in the area would not result in temporary or ongoing impacts to the environment.

d) The project is not located in an area that has a high landslide risk, so no impact is anticipated from fire related landslides. Although the project would place fill in a 100-year floodplain, the project would comply with all pertinent regulations, and the project would not expose people or structures to fire related flooding.

No Build Alternative

The existing condition would remain; therefore, per CEQA, "No Impact" would occur.

2.23 Mandatory Findings of Significance

Question	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	No	No	Yes	No
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	No	No	No	Yes
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	No	No	No	Yes

Discussion of Environmental Evaluation Question 2.23—Mandatory Findings of Significance

a) The proposed project does not have the potential to degrade the quality of the environment. The project may have potential impacts to riparian habitat and wetlands. These impacts have been reduced to “less than significant” with the implementation of project features.

b) The proposed project would not result in any adverse effects that, when considered in connection with other projects, would be considered cumulatively considerable. Therefore, there is no impact.

c) Based on the description of the proposed project and consideration of potential effects, the project would not cause substantial adverse effects on human beings, either directly or indirectly. Therefore, there is no impact.

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 effect 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.

Cumulative impacts to resources in the project area 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.

CEQA Guidelines Section 15130 describes when a cumulative impact analysis is necessary and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts under CEQA can be found in Section 15355 of the CEQA Guidelines. A definition of cumulative impacts under NEPA can be found in 40 CFR Section 1508.7 of the Council on Environmental Quality (CEQ) Regulations.

Aesthetics

Given that the project would result in low visual impacts and those impacts would be addressed by the implementation of standard measures, the project would not be expected to have a cumulative impact on aesthetics.

Agriculture and Forest Resources

Given that the project would result in no impacts on agriculture and forest resources, the project would not be expected to have a cumulative impact on agricultural or forest resources.

Air Quality

Given that the project would result in low air quality impacts and those impacts would be addressed by the implementation of standard measures, the project would not be expected to have a cumulative impact on air quality.

Biological Resources

Records were searched on the California State Clearinghouse website for activities near the proposed project. There were no projects listed within the project vicinity for future

construction. Records were also searched on the Caltrans' North Region Data Library for past and future projects that could occur within the near the project limits. One future shoulder widening project was identified just east of Haydsville, along SR 36. Caltrans does not anticipate cumulative effects on any of the species or habitats as a result of the proposed actions.

Cultural Resources

Given that the project would result in low impacts to cultural resources and those impacts would be addressed by the implementation of standard measures, the project would not be expected to have a cumulative impact on cultural resources.

Energy

Given that the project would result in no impacts to energy, the project would not be expected to have a cumulative impact on energy.

Geology and Soils

Given that the project would result in low impacts to geology and soils and those impacts would be addressed by the implementation of standard measures, the project would not be expected to have a cumulative impact on geology and soils.

Greenhouse Gas Emissions

Please see Greenhouse Gas Emissions, Section 2.7.

Hazards and Hazardous Materials

Given that the project would result in low impacts to hazards and hazardous materials and those impacts would be addressed by the implementation of standard measures, the project would not be expected to have a cumulative impact on hazards and hazardous materials.

Hydrology and Water Quality

Given the small scale of potential effects and the design features and standard measures to offset these effects, the proposed project would not be expected to result in a cumulative impact on hydrology or water quality.

Land Use and Planning

Given that the project would result in no impacts on land use and planning, the project would not be expected to have a cumulative impact on land use and planning.

Mineral Resources

Given that the project would result in no impacts on mineral resources, the project would not be expected to have a cumulative impact on mineral resources.

Noise

Given that the project would result in no impacts on noise, the project would not be expected to have a cumulative impact on noise.

Population and Housing

Given that the project would result in no impacts on population and housing, the project would not be expected to have a cumulative impact on population and housing.

Public Services

Given that the project would result in no impacts on public services, the project would not be expected to have a cumulative impact on public services.

Recreation

Given that the project would result in no impacts on recreation, the project would not be expected to have a cumulative impact on recreation.

Transportation/Traffic

Given that the project would result in no impacts on transportation/traffic, the project would not be expected to have a cumulative impact on transportation/traffic.

Tribal Cultural Resources

Given that the project would result in no impacts on tribal resources, the project would not be expected to have a cumulative impact on tribal resources.

Utilities and Service Systems

Given that the project would result in low impacts to utilities and service systems and those impacts would be addressed by the implementation of standard measures, the project would not be expected to have a cumulative impact on utilities and service systems.

Wildfire

Given that the project would result in no impacts on wildfire, the project would not be expected to have a cumulative impact on wildfire.

3 Chapter 3. Coordination and Comments

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

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

3.1 Coordination with Resource Agencies

- Consultation letters were mailed to representatives of the Bear River Band of the Rohnerville Rancheria, Big Lagoon Rancheria, Blue Lake Rancheria, Cher-Ae Heights Indian Community of the Trinidad Rancheria, Hoopa Valley Tribe, Karuk Tribe, Round Valley Indian Tribes of the Round Valley Reservation, Tsnungwe Council, Wiyot Tribe, and the Yurok Tribe.

- A field meeting inviting CDFW, NCRWQB, and USACE was scheduled for October 8, 2018 to discuss impacts to sensitive resources in the project limits. JoAnn Loehr from CDFW was the only agency liaison to attend.

4 Chapter 4. List of Preparers

The following individuals performed the work on the project:

4.1 California Department of Transportation, District 1

Alex Arevalo	Transportation Engineer/NPDES Coordinator
	Contribution: Water Quality Assessment Report
Joan Fine	Associate Environmental Planner (Architectural History)
	Contribution: Built Environment Evaluation
Michelle Holtz	Associate Environmental Planner (Natural Sciences)
	Contribution: Natural Environment Study
Laura Lazzarotto	Landscape Architect
	Contribution: Visual Impact Assessment
Jennifer Buck	Project Manager
	Contribution: Project Management
Youngil Cho	Associate Environmental Planner (Air Quality Specialist)
	Contribution: Energy Analysis Memo
Christian Figueroa	Engineering Geologist (Hazardous Waste)
	Contribution: Initial Site Assessment
Adele Pommerenck	Environmental Branch Chief
	Contribution: Senior Environmental Planner
Fernando Manzanera	Transportation Engineer
	Contribution: Floodplain Evaluation Summary Report
Sheri Rodriguez	TMP Coordinator
	Contribution: Transportation Management Plan
Bijan Samrad	Transportation Engineer
	Contribution: Project Design
Ian Springer	Associate Environmental Planner (Archaeology)
	Contribution: Cultural Studies

Wesley Stroud	Environmental Office Chief
	Contribution: Supervising Environmental Planner
Derek Salinas	Environmental Planner (Project Coordinator)
	Contribution: Project Coordinator and Document Preparer
Jason Lee	Transportation Engineer
	Contribution: Air Quality and Noise Analysis & Operational Green House Gas (GHG) and Construction GHG Analysis

5 Chapter 5. References

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Appendix A. Title VI Policy Statement

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY Gavin Newsom, Governor

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

Making Conservation a California Way of Life.

May 2019

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."*

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, please visit the following web page: http://www.dot.ca.gov/obeo/TitleVI.html.

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 Business and Economic Opportunity, at 1823 14th Street, MS-79, Sacramento, CA 95811; (916) 324-8379 (TTY 711); or at Title.VI@dot.ca.gov.

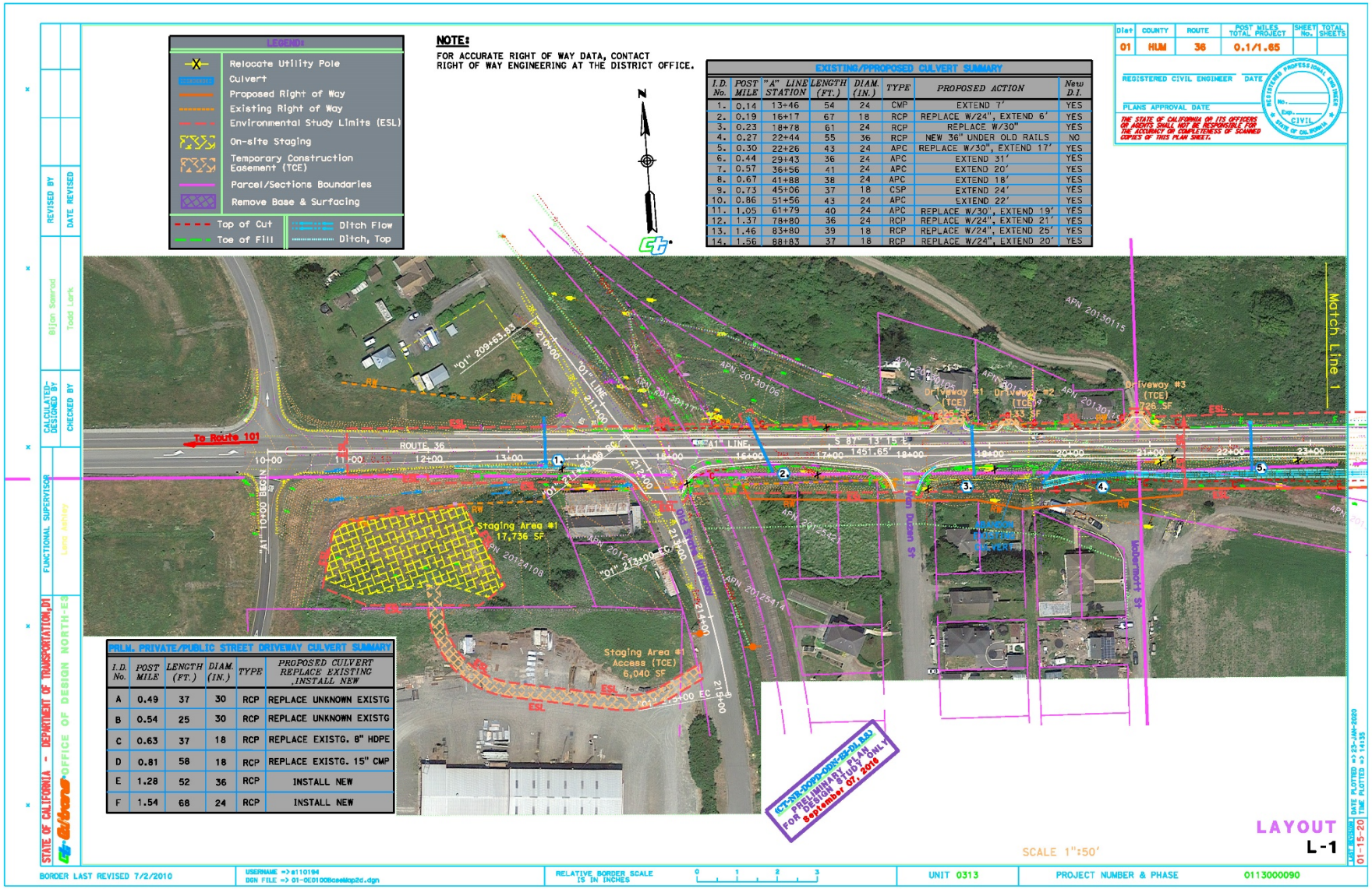
Original signed by

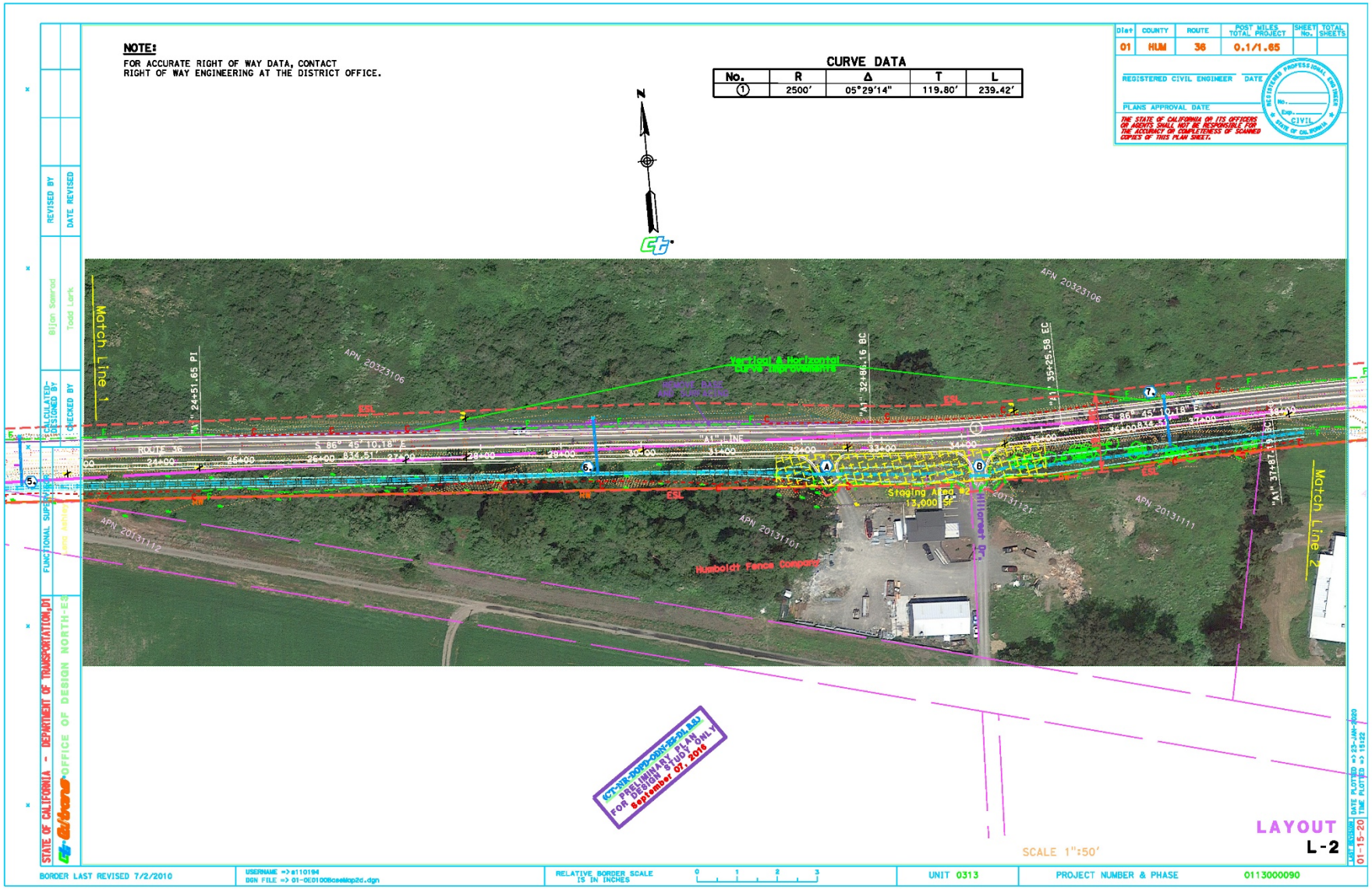
LAURIE BERMAN
Director

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

Appendix B. Layouts of Proposed Work

ATTACHMENT C

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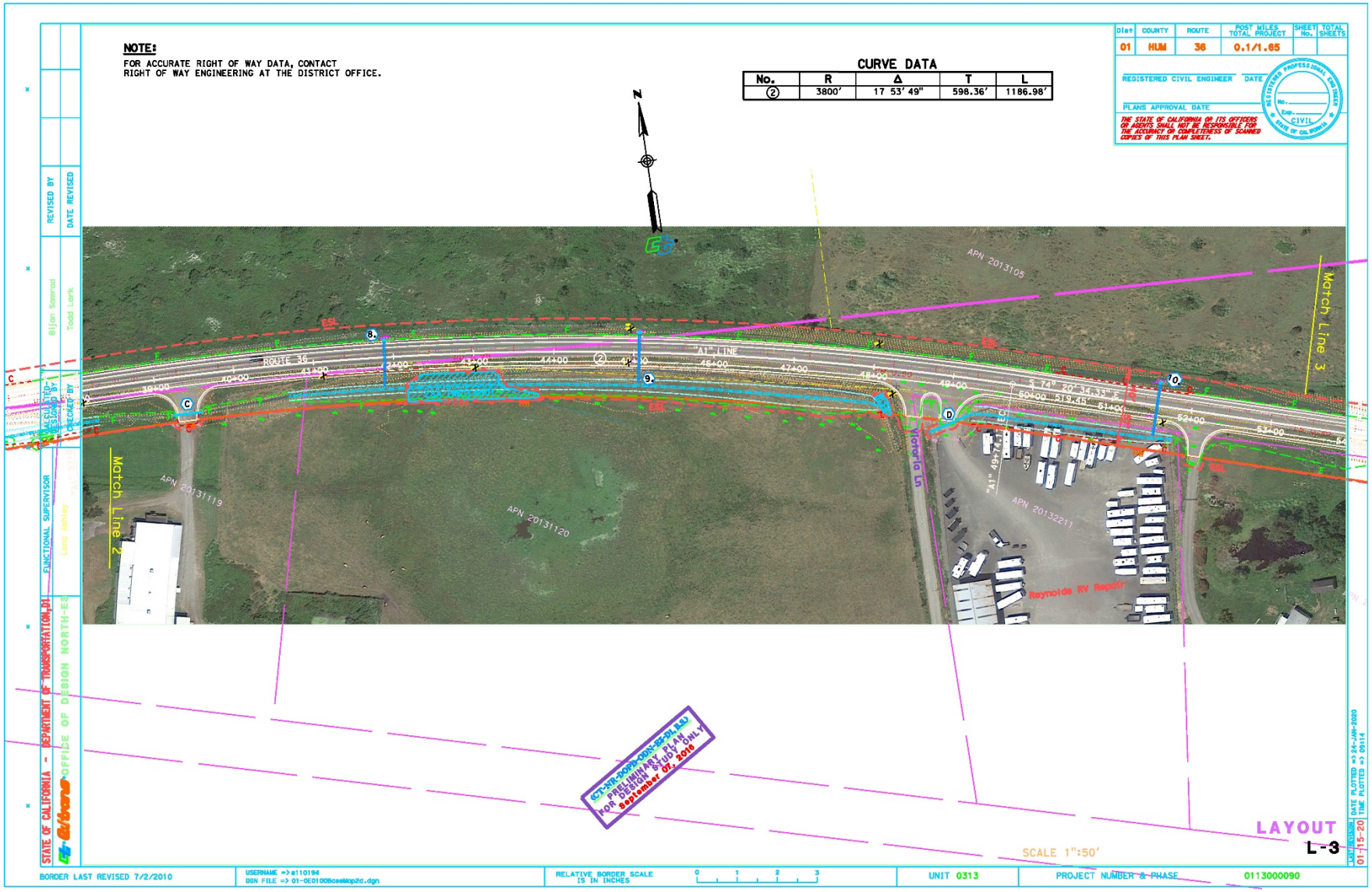
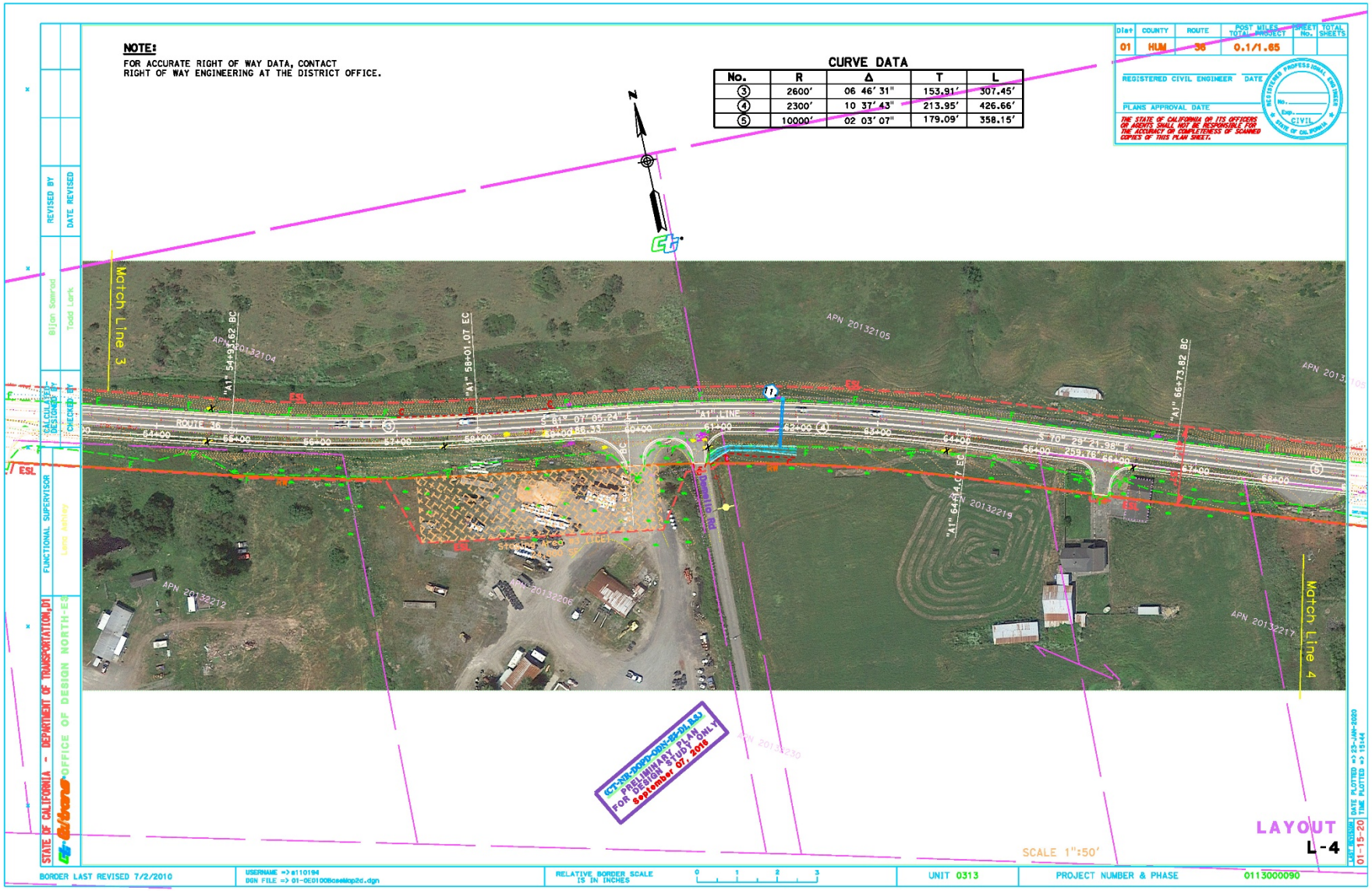
Hillcrest Dr.
APN 20323106
APN 20131112
APN 20131101
APN 20131121
APN 20131111
ESL
RW
LAYOUT
L-2
SCALE 1":50'
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
OFFICE OF DESIGN NORTH-ES
BORDER LAST REVISED 7/2/2010
PROJECT NUMBER & PHASE 0113000090
UNIT 0313

ATTACHMENT C

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01 HUM 36 0.1/1.65
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.
Match Line 3
Match Line 4
ROUTE 36
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APN 20132105
APN 20132212
APN 20132206
APN 20132219
APN 20132217
APN 20132230
"A1" 54+93.62 BC
"A1" 58+01.07 EC
"A1" 64+44.47 EC
"A1" 66+73.82 BC
"A1" LINE
Stockpile Area
Borrello Rd
(C7-NW-DWD-ODN-SEAL.DGN)
FOR PRELIMINARY PLAN
DESIGN STUDY ONLY
September 07, 2018
LAYOUT
L-4
SCALE 1":50'
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
OFFICE OF DESIGN NORTH-ES
FUNCTIONAL SUPERVISOR
CALCULATED/DESIGNED BY
CHECKED BY
REVISED BY
DATE REVISED
BORDER LAST REVISED 7/2/2010
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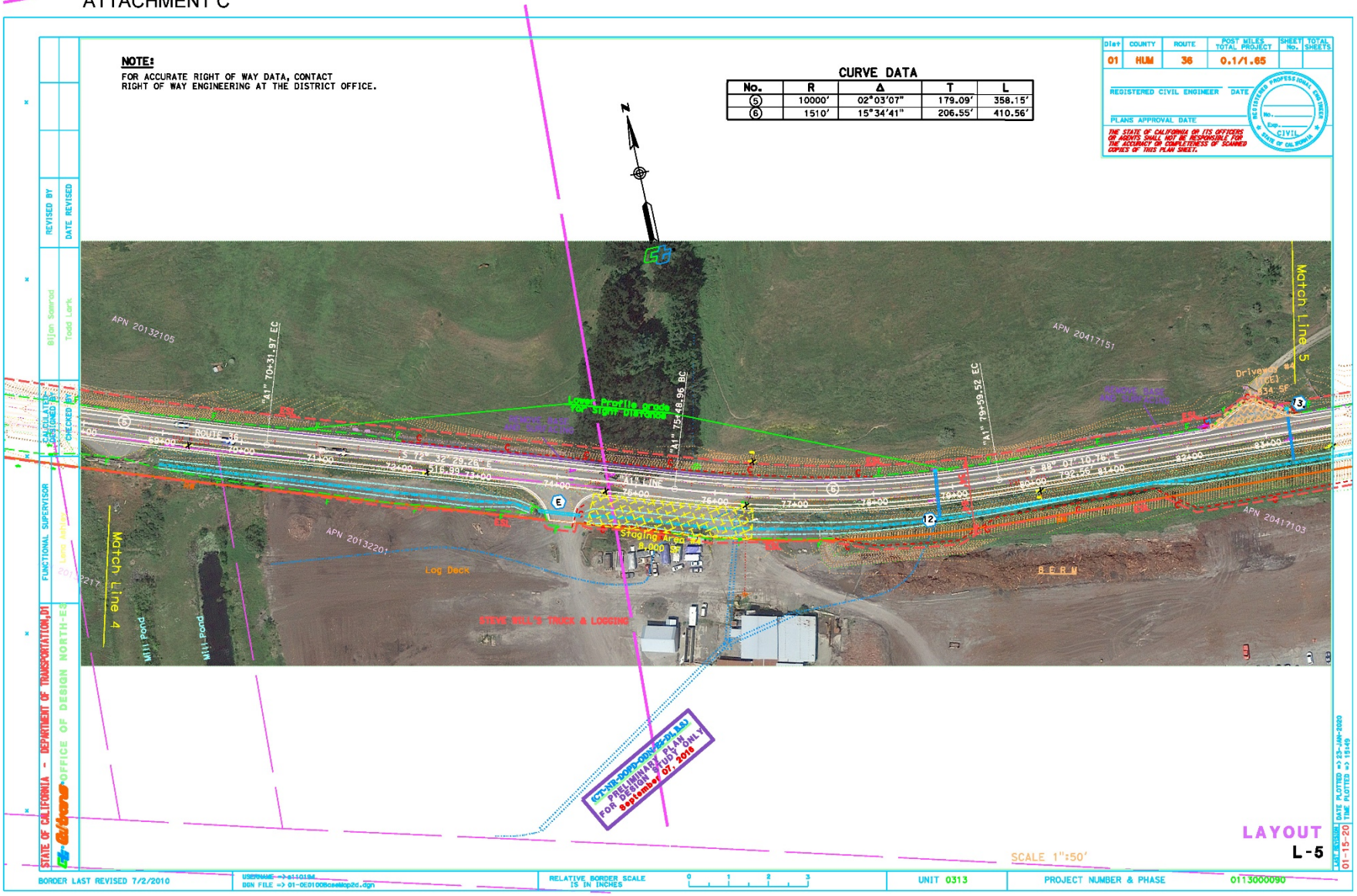
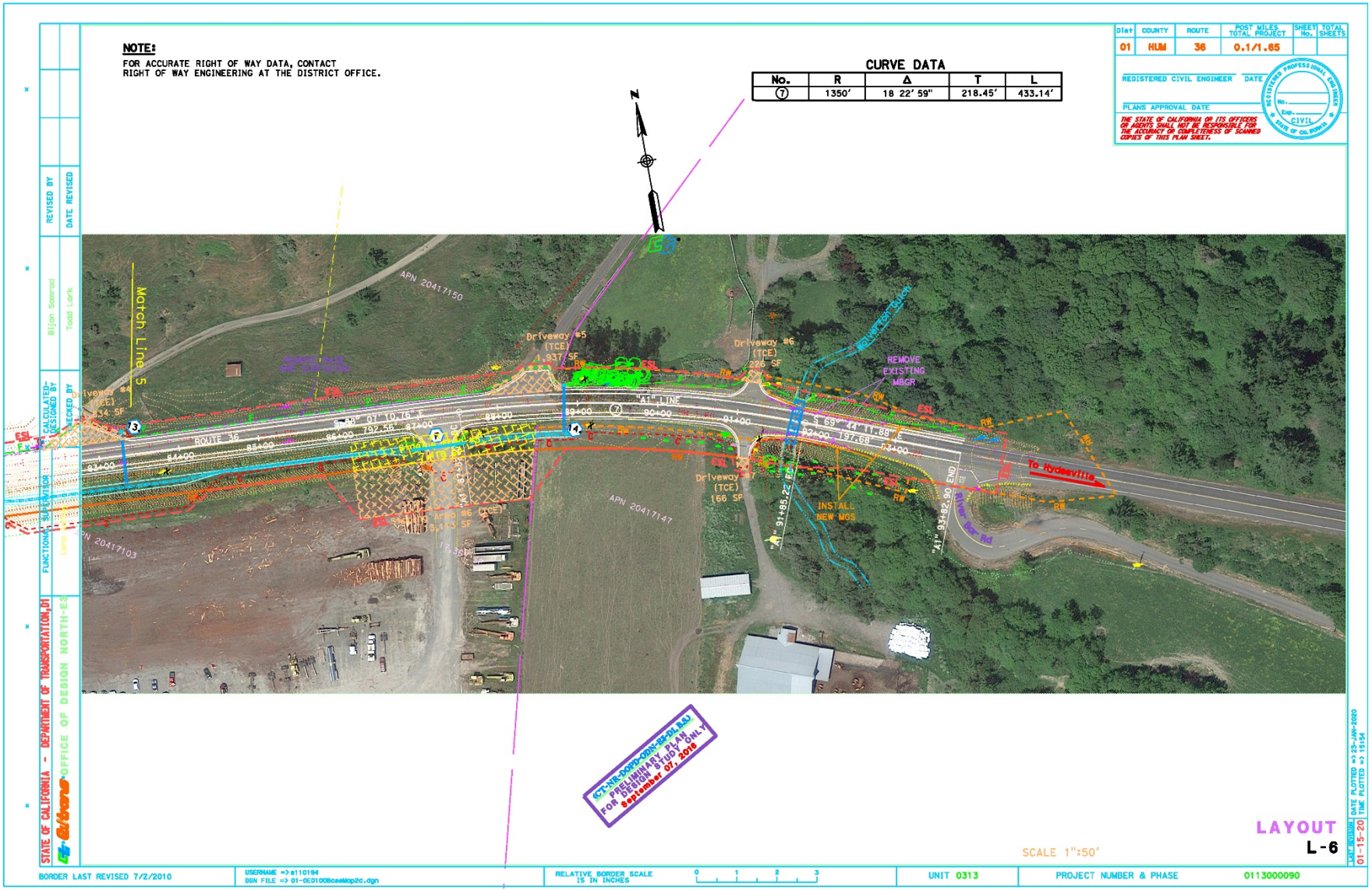
ATTACHMENT C

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Dist COUNTY ROUTE POST MILES TOTAL PROJECT SHEET No. TOTAL SHEETS
01 HUM 36 0.1/1.65
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.
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APN 20417147
APN 20417103
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Driveway #6 (TCE) 226 SF
Driveway #7 (TCE) 166 SF
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ROUTE 36
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INSTALL NEW MBGR
To Hydesville
River Bar Rd
ESL
RW
ACTNR-0009-OPN-82-01.EAJ
PRELIMINARY PLAN ONLY
FOR DESIGN STUDY ONLY
September 07, 2018
LAYOUT
L-6
SCALE 1":50'
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
OFFICE OF DESIGN NORTH-ES
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Appendix C. USFWS, NMFS, CNDDB, CNPS Species Lists

Appendix B

Table B1: Listed, Proposed Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area.

Scientific name	Common name	Status[1] Federal/State/ CNPS	Habitat	Habitat Present/ Absent	Rationale
AMPHIBIANS					
Rana aurora	Northern red-legged frog	-/- SC/-	Usually found near ponds or other permanent water bodies with extensive vegetation.	Absent	No Impact. No suitable habitat present in project area.
Rana boylii	Foothill yellow-legged frog	-/CT SC/-	Creeks or rivers in woodlands or forests with rock and gravel substrate and low overhanging vegetation along the edge.	Present	No Impact. Suitable habitat present at Wolverton Creek but outside project ESL. No in water work or work in the riparian area would occur. Project would not result in "take."
BIRDS					
Accipiter cooperii	Cooper's hawk	-/- WL/-	Nests in a variety of habitat types, from riparian woodlands and foothill pine-oak woodlands through mixed conifer forests.	Absent	No Impact. No suitable habitat present in project area.
Accipiter striatus	Sharp-shinned hawk	-/- WL/-	Dense canopy ponderosa pine or mixed-conifer forest and riparian habitats.	Absent	No Impact. No suitable habitat present in project area.
Agelaius tricolor	Tricolored blackbird	-/CE SC/-	Nests in emergent wetland vegetation such as tules or cattails, or at upland sites with blackberry shrubs, nettles, and thistles.	Present	No impact. Blackberry bushes along ditches on both sides of road. Known recording 0.7 mi N of on SR36/US101 junction. Vegetation removal along S side of road needed. With implementation of AMM's, the project would not result in "take."
Ardea herodias	Great blue heron	-/- -/-	Fresh, saline, or brackish marshes, mudflats, estuaries, lakes, and slow moving rivers and irrigation canals.	Absent	No Impact. No suitable habitat present in project area.

Brachyramphus marmoratus	Marbled murrelet	T/E -/-	Mature, coastal coniferous forests for nesting; nearby coastal water for foraging; nests in conifer stands greater than 150 years old and may be found up to 35 miles inland; winters on subtidal and pelagic waters often well offshore.	Absent	No Effect. No suitable habitat present in project area. Project would not result in "take."
Charadrius alexandrinus nivosus	Western snowy plover	T/- SC/-	Coastal beaches above the normal high tide limit with wood or other debris for cover. Inland shores of salt ponds and alkali or brackish inland lakes.	Absent	No Effect. No suitable habitat present in project area.
Coccyzus americanus occidentalis	Western yellow-billed cuckoo	T/E -/-	Wide, dense riparian forests with a thick understory of willows for nesting; sites with a dominant cottonwood overstory are preferred for foraging; may avoid valley oak-riparian habitats where scrub jays are abundant.	Absent	No Effect. No suitable habitat present in project area. Project would not result in "take."
Nycticorax nycticorax	Black-crowned night heron	-/- -/-	Feeds along lakes, large rivers, and fresh or brackish emergent wetlands with densely foliated trees or dense emergent vegetation for nesting.	Absent	No Impact. No suitable habitat present in project area.
Pandion haliaetus	Osprey	-/- WL/-	Nests in snags, trees, or utility poles near the ocean, large lakes, or rivers with abundant fish populations.	Absent	No Impact. No suitable habitat present in project area.
Riparia riparia	Bank swallow	-/T -/-	Neotropical migrant found in riparian, lacustrine and coastal habitats with vertical banks, bluffs and cliffs containing sandy soils for digging nest holes.	Absent	No Impact. No suitable habitat present in project area. Project would not result in "take."
Strix occidentalis caurina	Northern spotted owl	T/T -/-	Dense old-growth or mature forests dominated by conifers with topped trees or oaks available for nesting crevices.	Absent	No Effect. No suitable habitat present in project area. Project would not result in "take."
FISH					
Oncorhynchus clarkii clarkii	Coast cutthroat trout	-/- SC/-	Freshwater rivers; less rarely migrating out to sea.	Absent	No Impact. No suitable habitat present in project area.

Oncorhynchus kisutch	Southern Oregon/Northern California (SONCC) coho salmon	T/T -/-	Requires beds of loose, silt free, coarse gravel for spawning. Also needs cover, cool water, and sufficient dissolved oxygen.	Absent	No Effect. No suitable habitat present in project area. Project would not result in "take."
Oncorhynchus mykiss	Northern California steelhead	T/- -/-	Cool freshwater streams and rivers, require sand and gravel for spawning.	Absent	No Effect. No suitable habitat present in project area.
Oncorhynchus tshawytscha	California coastal Chinook salmon	T/- -/-	Ocean and coastal streams.	Absent	No Effect. No suitable habitat present in project area.
Spirinchus thaleichthys	Longfin smelt	C/T SC/-	Open waters of the San Francisco Bay-Delta	Absent	No Effect. No suitable habitat present in project area. Project would not result in "take."
INVERTEBRATES					
Bombus caliginosus	Obscure bumble bee	-/- -/-	Open grassy coastal prairies and meadows. Generalist forager. Nests above or underground.	Absent	No Impact. No suitable habitat present in the project area.
Bombus occidentalis	Western bumble bee	-/- -/-	Open grassy areas, urban parks and gardens, chaparral, meadows. Generalist forager. Nests above or underground.	Absent	No Impact. No suitable habitat present in the project area.
MAMMALS					
Antrozous pallidus	Pallid bat	-/- SC/-	Occurs throughout California except for the High Sierra, from Shasta to Kern County and the northwest coast, primarily at lower and mid elevations.	Absent	No Impact. No suitable habitat present in project area.
Aplodontia rufa humboldtiana	Humboldt mountain beaver	-/- -/-	Coast ranges in southwestern Del Norte County and northwestern Humboldt County. Variety of coastal habitats, including coastal scrub, riparian forests, typically with open canopy and thickly vegetated understory.	Absent	No Impact. No suitable habitat present in project area.
Arborimus pomo	Sonoma tree vole	-/- SC/-	Inhabits old-growth forests of Douglas-fir, redwood, or montane hardwood-conifer species.	Absent	No Impact. No suitable habitat present in project area.
Corynorhinus townsendii	Townsend's big-eared bat	-/- SC/-	Roosts in caves, tunnels, mines, and dark attics of abandoned buildings.	Absent	No Impact. No suitable habitat present in project area.

Erethizon dorsatum	North American porcupine	-/- -/-	Wide variety of coniferous and mixed woodland habitat in the Sierra Nevada, Cascade, and Coast Ranges.	Absent	No Impact. No Impact. No suitable habitat present in project area.
Lasiurus cinereus	Hoary bat	-/- -/-	Normally roosts alone in trees but has been seen in caves with other bats. Prefers woodland, mainly coniferous forests.	Absent	No Impact. No suitable habitat present in project area.
Martes caurina humboldtensis	Humboldt marten	-/CE SC/-	Old growth forests.	Absent	No Impact. No suitable habitat present in project area. Project would not result in "take."
Martes pennanti (Pekania pennanti)	Fisher, West Coast DPS	PT/T SC/-	Northern coniferous and mixed forests with tree cavities and hollow logs for den sites.	Absent	No Effect. No suitable habitat present in project area. Project would not result in "take."
REPTILES					
Emys marmorata	Western pond turtle	-/- SC/-	Permanent or mostly permanent waters in a variety of habitats.	Present	No Impact. Suitable habitat present at Wolverton Creek but outside of ESL. No in water work will occur.
PLANTS					
Clarkia amoena ssp. whitneyi	Whitney's farewell-to-spring	-/- -/List 1B.1	Coastal bluff scrub, coastal scrub.	Absent	No Impact. No suitable habitat present in project area.
Collomia tracyi	Tracy's collomia	-/- -/List 4.3	Lower montane coniferous forest.	Absent	No Impact. No suitable habitat present in project area.
Erysimum menziesii ssp. menziesii	Menzies' wallflower	E/E -/List 1B.1	Coastal dunes.	Absent	No Effect. No suitable habitat present in project area. Project would not result in "take."
Fissidens pauperculus	Minute pocket moss	-/- -/List 1B.2	North Coast coniferous forest (damp coastal soil).	Absent	No Impact. No suitable habitat present in project area.

Gilia capitata ssp. pacifica	Pacific gilia	-/- -/List 1B.2	Coastal bluff scrub, chaparral (openings), coastal prairie, valley and foothill grassland.	Present	No Impact. Record of species along north side of road in 1927. Species was not observed during surveys; no work would occur on north side of road.
Hesperolinon adenophyllum	Glandular western flax	-/- -/List 1B.2	Chaparral, cismontane woodland, valley and foothill grassland/usually serpentinite.	Absent	No Impact. No suitable habitat present in project area.
Layia carnosa	Beach layia	E/E -/List 1B.1	Coastal dunes and sandy coastal scrub.	Absent	No Effect. No suitable habitat present in project area. Project would not result in "take."
Lilium kelloggi	Kellogg's lily	-/- -/List 4.3	Openings and roadsides in lower montane coniferous forest and North Coast coniferous forest.	Absent	No Impact. No suitable habitat present in project area.
Lilium occidentale	Western lily	E/E -/List 1B.1	Bogs and fens; coastal scrub, prairie, and bluff scrub; freshwater marshes and swamps; and openings in North Coast coniferous forest.	Absent	No Effect. No suitable habitat present in project area. Project would not result in "take."
Lilium rubescens	Redwood lily	-/- -/List 4.2	Broadleafed upland forest, chaparral, lower montane coniferous forest, North Coast coniferous forest, upper montane coniferous forest/sometimes serpentinite, sometimes roadsides.	Absent	No Impact. No suitable habitat present in project area.
Listera cordata	Heart-leaved twayblade	-/- -/List 4.2	Bogs and fens, lower montane coniferous forest, North Coast coniferous forest.	Absent	No Impact. No suitable habitat present in project area.
Lycopodium clavatum	Running-pine	-/- -/List 4.1	Lower montane coniferous forest (mesic), marshes and swamps, North Coast coniferous forest (mesic)/often edges, openings, and roadsides.	Absent	No Impact. No suitable habitat present in project area.
Mitellastra caulescens	Leafy-stemmed mitrewort	-/- -/List 4.2	Broadleafed upland forest, lower montane coniferous forest, meadows and seeps, North Coast coniferous forest/mesic, sometimes roadsides.	Absent	No Impact. No suitable habitat present in project area.

Montia howellii	Howell's montia	-/- -/List 2B.2	Vernally mesic meadows and seeps, North Coast coniferous forest and vernal pools. Sometimes on roadsides.	Absent	No Impact. No suitable habitat present in project area.
Packera bolanderi var. bolanderi	Seacoast ragwort	-/- -/List 2B.2	Coastal scrub, North Coast coniferous forest/sometimes roadsides.	Absent	No Impact. No suitable habitat present in project area.
Pleuropogon refractus	Nodding semaphore grass	-/- -/List 4.2	Lower montane coniferous forest, meadows and seeps, North Coast coniferous forest, riparian forest/mesic.	Absent	No Impact. No suitable habitat present in project area.
Polemonium carneum	Oregon polemonium	-/- -/List 2B.2	Coastal prairie and scrub; lower montane coniferous forest.	Absent	No Impact. No suitable habitat present in project area.
Sidalcea malachroides	Maple-leaved checkerbloom	-/- -/List 4.2	Broadleafed upland forest, coastal prairie, coastal scrub, North Coast coniferous forest, riparian woodland/often in disturbed areas.	Present	No Impact. Record of species east of project location along SR 36. Not observed during survey.
Sidalcea malviflora ssp. patula	Siskiyou checkerbloom	-/- -/List 1B.2	Coastal bluff scrub, coastal prairie, North Coast coniferous forest/often roadcuts.	Present	No Impact. Species observed on westbound side of SR-36. Will be avoided using ESA fencing.
Usnea longissima	Methuselah's beard lichen	-/- -/List 4.2	Grows on old-growth Douglas-fir limbs in redwood forests along the Pacific coast.	Absent	No Impact. No suitable habitat present in project area.
SENSITIVE HABITATS					
California Coastal Chinook Critical Habitat				No Effect. No suitable habitat present in project area.	
Chinook Essential Fish Habitat				No Effect. No suitable habitat present in project area.	
Coastal Pelagics Essential Fish Habitat				No Effect. No suitable habitat present in project area.	
Coho Essential Fish Habitat				No Effect. No suitable habitat present in project area.	
Groundfish Essential Fish Habitat				No Effect. No suitable habitat present in project area.	
North Coast Steelhead Critical Habitat				No Effect. No suitable habitat present in project area.	
SONCC Coho Critical Habitat				No Effect. No suitable habitat present in project area.	

[1]Status Explanations:

Federal Status (pursuant to the Federal Endangered Species Act of 1973, as amended)

E = endangered. Listed as being in danger of extinction.
T = threatened. Listed as likely to become endangered within the foreseeable future.
P = proposed. Proposed for listing as threatened or endangered, or for delisting.
C = candidate. Candidate that may become a proposed species.
D = delisted.

01-0E010 Alton Shoulder Widening

Appendix D. Biological Surveys – Species , Personnel, and Dates

Review Personnel	Date	Purpose
Alexandra Laughtin, Allison Kunz, and Grant Thornton; Caltrans biologists. Max Lammert; Caltrans coordinator.	June 21, 2017	General habitat assessment and botanical survey.
Alexandra Laughtin, Hannah Clark, and Grant Thornton; Caltrans biologists. Michelle Holtz; Caltrans coordinator.	August 8, 2017	Botanical survey.
Alexandra Laughtin; Caltrans biologists. Michelle Holtz; Caltrans coordinator. Ian Springer; Caltrans archeologist. Rob Meade; Caltrans Resource Liaison. Bijan Samrad, Kristine Pepper, Celeste Redner, Lena Ashley, and Dan Bornman; Caltrans Design PDT.	January 31, 2018	Field PDT.
Alexandra Laughtin, Reed Crane, Hannah Clark; Caltrans biologists. Michelle Holtz; Caltrans coordinator. Rob Meade; Caltrans resource liaison.	May 2, 2018	Wetland delineation.
Alexandra Laughtin, Grant Thornton; Caltrans biologists. JoAnn Loehr; CDFW liaison.	October 8, 2018	Agency field meeting.
Jonathan Lee and Christy Wagner	July 2, 2019	Botanical survey for rare plants.