

# **BLUE LAKES SAFETY PROJECT**

**LAKE COUNTY, CALIFORNIA  
DISTRICT 1 – LAK – 20 (Post Miles 2.0 to 2.8)  
01-0H840 / 0118000117**



## **Initial Study with Proposed Negative Declaration**

**Prepared by the  
State of California Department of Transportation**



**May 2020**



## General Information about this Document

### What's in this document?

The California Department of Transportation (Caltrans) has prepared this Initial Study with proposed Negative Declaration (IS/ND) which examines the potential environmental effects of a proposed project on State Route 20 near Upper Lake, 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
  - <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: Fermina Chavez  
Environmental Management RM-2 Branch  
703 B Street  
Marysville, CA 95901
- Send comments via e-mail to: [fermina.chavez@dot.ca.gov](mailto:fermina.chavez@dot.ca.gov)
- Be sure to send comments by the deadline: June 30, 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.



# BLUE LAKES SAFETY PROJECT

01-0H840/0118000117

Curve Correction on State Route 20 in Lake County,  
from post miles 2.0 to 2.8 near Upper Lake.

## INITIAL STUDY WITH

## PROPOSED NEGATIVE DECLARATION

### INITIAL STUDY WITH PROPOSED NEGATIVE DECLARATION

Submitted Pursuant to: Division 13, California Public Resources Code

THE STATE OF CALIFORNIA

Department of Transportation

5/28/20

Date of Approval

Wesley Stroud

Wesley Stroud, Office Chief  
North Region Environmental-District 2  
California Department of Transportation  
CEQA Lead Agency

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

Fermina Chavez, North Region Environmental-District 3  
703 B Street, Marysville, CA 95901

(530) 741-4084

or use the California Relay Service TTY number, 711 or 1-800-735-2929.



**Proposed Negative Declaration  
Pursuant to: Division 13, California Public Resources Code**

SCH Number: Pending

**Project Description**

The California Department of Transportation (Caltrans) proposes a safety improvement project on State Route (SR) 20 between post miles (PM) 2.0 to 2.8 in Lake County. The proposed project would improve an existing curve, install two retaining walls, widen and pave existing shoulders, install guardrail and terminal systems, excavate a sight bench, replace and extend culverts, relocate overhead utilities, and add centerline and shoulder rumble strips.

**Determination**

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

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

The proposed project would have no effect on agricultural and forest resources, cultural resources, energy, land use and planning, mineral resources, population and housing, public services, recreation, transportation/traffic, tribal cultural resources, and wildfire.

In addition, the proposed project would have less than significant effects to aesthetics, air quality, biological resources, geology and soils, greenhouse gases, hazards and hazardous materials, hydrology and water quality, noise, and utilities and service systems.

---

Wesley Stroud, Office Chief  
North Region Environmental-District 2  
California Department of Transportation

---

Date

# Table of Contents

<b>1</b>	<b>Chapter 1. Proposed Project</b> .....	<b>1</b>
1.1	Project History.....	1
1.2	Project Description.....	1
1.3	Project Maps.....	10
1.4	Permits and Approvals Needed.....	12
1.5	Standard Measures and Best Management Practices.....	12
1.6	Discussion of the NEPA Categorical Exclusion.....	18
<b>2</b>	<b>Chapter 2. CEQA Environmental Checklist</b> .....	<b>19</b>
2.1	Environmental Factors Potentially Affected.....	19
2.2	Project Impact Analysis Under CEQA for Initial Study.....	20
2.3	Aesthetics.....	22
2.4	Agriculture and Forest Resources.....	25
2.5	Air Quality.....	27
2.6	Biological Resources.....	30
2.7	Cultural Resources.....	86
2.8	Energy.....	90
2.9	Geology and Soils.....	92
2.10	Greenhouse Gas Emissions.....	97
2.11	Hazards and Hazardous Materials.....	116
2.12	Hydrology and Water Quality.....	119
2.13	Land Use and Planning.....	128
2.14	Mineral Resources.....	129
2.15	Noise.....	130
2.16	Population and Housing.....	132
2.17	Public Services.....	133
2.18	Recreation.....	134
2.19	Transportation/Traffic.....	135

2.20	Tribal Cultural Resources .....	137
2.21	Utilities and Service Systems.....	139
2.22	Wildfire .....	141
2.23	Mandatory Findings of Significance .....	143
<b>3</b>	<b>Chapter 3. Coordination and Comments .....</b>	<b>147</b>
3.1	Coordination with Resource Agencies .....	147
<b>4</b>	<b>Chapter 4. List of Preparers.....</b>	<b>148</b>
4.1	California Department of Transportation, District 1.....	148
<b>5</b>	<b>Chapter 5. References .....</b>	<b>150</b>
<b>Appendix A.</b>	<b>Title VI Policy Statement .....</b>	<b>149</b>
<b>Appendix B.</b>	<b>Layouts of Proposed Work .....</b>	<b>153</b>
<b>Appendix C.</b>	<b>USFWS, NMFS, CNDDDB, CNPS Species Lists .....</b>	<b>158</b>
<b>Appendix D.</b>	<b>Biological Surveys – Species , Personnel, and Dates .....</b>	<b>130</b>

## List of Tables and Figures

	<b>Page</b>
Table 1. Agency Approvals .....	13
Table 2 – Special Status Plants Potentially Occurring or Known to Occur in the Project Area.....	40
Table 3 – Special-status Animals and Critical Habitat Potentially Occurring or Known to Occur in the Project Area .....	55
Table 4: Impacts to OWUS and State. ....	78
Table 5: GHG Emissions from Construction of the Three Lake Bridges Project.....	101

	<b>Page</b>
Figure 1. Project Vicinity Map .....	11
Figure 2. Project Location Map .....	12
Figure 3: U.S. 2016 Greenhouse Gas Emissions .....	98
Figure 4: California 2017 Greenhouse Gas Emissions .....	99
Figure 5: Change In California GDP, Population and GHG Emissions Since 2000 .....	99
Figure 6: California Climate Strategy .....	103

# 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 improve safety near the community of Upper Lake by correcting two curves and widening the shoulders along the portion of State Route 20 near Blue Lakes. The proposed project would extend from approximately 0.6 miles west of Irvine Avenue to approximately 0.1 miles east of Mid Lake Road. The total length of the project is approximately 0.8 miles. Figures 1 and 2 indicate the proposed project location and vicinity maps.

The project was originally designed with the following three engineering features that are now rescoped and or adjusted; Mechanically Stabilized Embankment (MSE), cantilever pile wall, and soil nail wall. The east tangent of the west curve was adjusted to eliminate the cantilever pile wall to minimize construction on both sides of the roadway. The MSE was replaced with Type 1 retaining wall per Caltrans geotechnical and structure's team recommendation. Alignment of the soil nail wall was warped near the existing landslide area to accommodate off-site drainage run off and to provide room for rock fall.

## 1.2 Project Description

The California Department of Transportation (Caltrans) proposes a safety improvement project on State Route (SR) 20 between post miles (PM) 2.0 to 2.8 in Lake County. The proposed project would improve an existing curve, install two retaining walls, widen and pave existing shoulders, install guardrail and terminal systems, excavate a sight bench, replace and extend culverts, relocate overhead utilities, and add centerline and shoulder rumble strips.

### Project Objectives

The purpose of this project is to reduce the frequency and severity of collisions on State Route 20 in Lake County between PM 2.0 and 2.8. The project is needed in response to a traffic collision analysis conducted within the project limits. Over a five-year period, this section of highway experienced a total of 28 collisions, resulting in thirteen injuries and one fatality.

Curve improvement and shoulder widening are countermeasures to reduce collisions identified in the Highway Safety Improvement Program Guidelines for the 201.010 SHOPP Program. The curve improvements would improve site distance which would provide all route users with a safer mobility experience. One curve radius would go from 400 feet to 641 feet. Site bench construction would improve site distance from 280 feet to 580 feet. Additionally, shoulders would be increased from 3 feet and 4 feet to 8 feet and 10 feet.

## **Proposed Project**

Caltrans proposes a safety improvement project on SR 20 in Lake County near the town of Upper Lake. The project description includes a discussion of the preferred alternative, construction methodology, and the existing facilities, general plan description, zoning, and surrounding land use.

## **Introduction to Project Alternatives**

There is one build alternative, and one “No Build” alternative.

### **Alternative A: Build Alternative**

This alternative proposes a project to improve an existing curve, install two retaining walls (soil nail wall and a Type 1 retaining wall), widen and pave existing shoulders, install guardrail and terminal systems, excavate a sight bench, replace and extend culverts, relocate overhead utilities, and add centerline and shoulder rumble strips.

Curve improvement would occur at two locations within the project limits; the West Curve between PM 2.06 to PM 2.25 and the East Curve between PM 2.57 to PM 2.70.

### Location 1: West Curve

Work at the West Curve would involve increasing the curve radius from 400 feet to 641 feet. Curve improvement would be accomplished by excavating approximately 33 feet into the existing cut slope on the north side of the roadway. An approximately 62 foot high by 565 foot long soil nail wall would be constructed to minimize environmental impact. To facilitate construction of the soil nail wall, the westbound lane would be closed temporarily and a temporary construction bench would be used as a staging area. In the area of an existing landslide, cable mesh-drapery would be installed to prevent rock fall. Soil nail wall construction would require drilling nails into the cut slope, placing synthetic drainage mat between nail heads, adding a layer of concrete, and installing bearing plates.

The existing roadway centerline would be shifted approximately 20 feet north. New pavement structural sections, consisting of compacted base material and hot mix asphalt would be constructed. Existing lane configuration consisting of one 12 foot wide lane in each direction would be maintained. The roadway would be overlaid with hot mix asphalt and restriped with high-visibility pavement delineation. New centerline and shoulder rumble strips would be installed.

Existing 3 to 4 foot wide shoulders would be widened to approximately 8 feet in both directions and paved. Shoulders adjacent to the soil nail wall would be widened to approximately 10 feet and paved. Shoulder widening would require installation of a Type 1 retaining wall approximately 6.8 feet high by 200 feet long between PM 2.08 to PM 2.11. Retaining wall construction would require architectural treatment, slope excavation, placement of geosynthetic embankment, and soil backfill. Three rail

element walls (REW) each approximately 2 feet high by 80 feet long would be installed between PM 2.08 to PM 2.09, PM 2.13 to PM 2.14, and PM 2.21 to PM 2.23.

To facilitate construction, an approximately 6 to 12 foot wide by 200 to 250 foot long temporary access road would be constructed adjacent to the Type 1 retaining wall. A cable barrier railing would be installed at the top of the soil nail wall and Type 1 retaining wall. Guardrail with terminal systems would be installed between PM 2.08 to PM 2.11.

### Location 2: East Curve

Work at the East Curve would include excavating a sight bench approximately 31 feet into the hillside on the north side of the roadway. This would increase sight distance from approximately 280 feet to 580 feet along a portion of the curve. Sight bench excavation would be approximately 50 feet high by 260 feet long. Access to the site would be gained from the northwest side of the East Curve. An approximately 12 foot wide by 100 foot long temporary access road would be constructed within the footprint of the sight bench to reach the top limit of cut. The hillside would then be excavated from top down to achieve the final cut slope and sight bench.

### Location 1: West Curve and Location 2: East Curve

Four culverts would be replaced, repaired, and/or extended. At PM 2.13 the existing 18 inch diameter by 86 foot long corrugated steel pipe culvert would be replaced with an approximately 24 inch diameter by 86 foot long corrugated steel pipe culvert and a new drainage inlet would be constructed. At PM 2.22, the existing 18 inch diameter by 48 foot long corrugated steel pipe culvert would be replaced with an approximately 24 inch diameter by 60 foot long alternative pipe culvert and a new drainage inlet would be constructed. At PM 2.62, an existing 3 foot high by 7 foot wide by 57 foot long box culvert and an existing 3 foot high by 5 foot wide by 57 foot long box culvert would be extended by approximately 19 feet.

Vegetation and tree removal would be required to facilitate construction. Approximately 100 trees would require removal. Approximately 24,000 cubic yards of excess material would be transported from the project site and deposited into the Chase Quarry in Mendocino County, State Route 20, PM 41.6 to PM 41.7.

All work would occur within the Caltrans right-of-way and on adjacent private property. Minor permanent right-of-way acquisition would be required from five parcels. Construction staging would occur on the existing paved roadway and on gravel pullouts within and adjacent to the project limits. During construction, the westbound lane at the west curve would be closed and a temporary signal would be installed. This one-way-reversing traffic control system would be in place for approximately six months. Six overhead utility poles would be relocated, three at the

West Curve and three at the East Curve. Other utilities within the project limits would be protected in place.

Scope of work:

- Install temporary traffic control.
- Relocate eleven overhead utility poles.
- Improve curve at West Curve.
- Excavate a sight bench at East Curve.
- Widen shoulders 8 to 10 feet to curve locations.
- Construct one standard plan retaining wall and three rail element walls.
- Replace, repair, and/or extend four existing culverts.
- Reconstruct the roadway at West Curve.
- Install guardrail with terminal systems. Place enhanced-visibility pavement delineation, centerline and shoulder rumble strips, and erosion control.

Construction is anticipated to start in 2022 and would last approximately 250 working days.

Project features, including design elements of the project and standardized measures that are applied to all or most Caltrans projects are considered an integral part of the project and would be implemented, as applicable. This includes best management practices as well as the methods and measures in Caltrans Standard Plans, Caltrans Standard Specifications, and Caltrans Special Provisions.

### ***Construction Methodology***

This section discusses how construction of the project would occur.

#### ***Construction Staging and Access Roads***

This project would be constructed in three stages. In stage one, the east curve hill would be excavated and the excavated material would be used to construct a temporary bench at the west curve for the soil nail wall construction. In stage two, the soil nail wall would be constructed and excavated material would be hauled away to disposal site. In stage three, the type 1 retaining wall and rail element walls along the lake would be constructed.

At the East Curve an approximately 12 foot wide by 100 foot long temporary access road would be constructed within the footprint of the sight bench to reach the top limit of cut. The hillside would then be excavated from top down to achieve the final cut slope and sight bench. Excavated material from this site would be used to construct temporary bench at the west curve which would be used as access road to construct the soil nail wall. An approximately 6 to 12 foot wide by 200 to 250 foot long temporary access road would be constructed adjacent to Type 1 retaining wall.

### *Excavation*

Excavation and earth moving activities would be needed for construction of the project. The project would require both the cut of existing material and the fill of new material to construct the project. Excess material would be hauled off to the designated disposal site.

### *Drainage*

Construction of the project would require the replacement, reparation and/or extension of drainage facilities. Existing culverts would be replaced, extended, or removed based on the recommendations of Caltrans' hydraulics engineers and the Caltrans' Highway Design Manual. The design of the new stormwater facilities would be finalized during the design phase of the project. Drainage patterns would remain the same.

### *Traffic Management*

The movement of heavy equipment, work on the SR 20 intersection, and cutting of the hillsides could require reversing traffic control, intermittent closure, shoulder closure, and ramp closure on SR 20. During construction, one lane would require full closure for an entire construction season. There would be temporary signals that would allow one way reversing traffic 24/7 for that construction season. The maximum delay anticipated from reversing traffic control would be 10 minutes, and the maximum delay from intermittent closures would be 20 minutes.

The project would take steps to minimize traffic impacts to the local area. Any emergency service agency whose ability to respond to incidents 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*

At the proposed project site, utility lines are present in several locations. American Telephone and Telegraph (AT&T) telephone lines, Pacific Gas & Electric (PG&E) overhead and underground electric lines, guy wire with and without poles, and 26 poles in the general project area. Eleven utility poles would be relocated.

If the utility poles or lines conflict with the proposed work or is within the clear recovery zone, they would be relocated 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.

### ***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 from the jobsite via dump trucks and hauled away to the disposal site.
- A paving machine would be brought in to pave the roadway.
- A loader would be used to load the excavated material on the trucks
- The backfill and grading operation would require the use of dump trucks to bring material in, grader to grade, a loader or excavator to help position the material, and a rolling compactor to compact the material.
- A crane, drum rollers, 10 wheel dump truck, truck crane, bottom dump/transfer trucks, contractor trucks, pump truck, concrete truck, generator, and water truck would be needed throughout the process.

### ***Right-of-Way Impacts***

The project would require permanent right-of-way (ROW) acquisition from five fee parcels and one subterranean easement totaling 1.89 acres (82,328 square feet). No displacements of homes or people would occur. Six temporary construction easements would be required for construction access and equipment staging. Access to properties adjacent to the project area would be maintained throughout construction.

### ***Complete Streets***

Caltrans' Complete Streets Directive promotes a transportation system that safely accommodates bicyclists, pedestrians and transit users. In the project vicinity, SR 20

serves a variety of traffic including local traffic, commuters, interregional freight, and seasonal tourism. All modes of transportation have been included in the proposed design to the extent feasible. The existing facility has 4 to 6 foot wide shoulders that would be upgraded to standard 8 foot wide shoulders, improving the functionality and safety 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**

Land use in the vicinity of the proposed project is designated in the Lake County General Plan as Rural Lands (RL), Resort Commercial (RC), and Low Density Residential (LDR). Within the project limits, SR 20 is a two-lane conventional highway located in rural and residential terrain. The existing roadway consists of two 12 foot wide lanes in the eastbound direction, one 12 foot wide lane in the westbound direction, shoulders ranging between 3 to 4 feet wide on each side of the roadway, and a shoulder rumble strip in the eastbound lane. There are no intersections or business within the project limits. There are 13 driveways that provides access to 23 homes within the project limits. The elevation of the proposed project location ranges between approximately 1,360 and 1,390 feet above sea level. Average annual temperatures range from 55 degrees Fahrenheit to 90 degrees Fahrenheit. Average annual precipitation is 34.09 inches with most of the precipitation occurring October through April. Habitat surrounding the proposed project is characterized by riparian habitat along the lakeside, mobile residences, limited commercial development, and oak woodland in the surrounding Coastal Ranges. The vegetation present at the project location is consistent with riparian habitat.

### **Alternatives Considered but Eliminated from Further Consideration**

#### *No Build Alternative:*

This alternative would not address the purpose and need of the project. By not replacing the railings on these structures, the condition of the railing would continue to deteriorate and the recommendation from the Area Bridge Maintenance Engineer (ABME) would not be addressed.

### 1.3 Project Maps

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

Figure 1. Project Vicinity Map

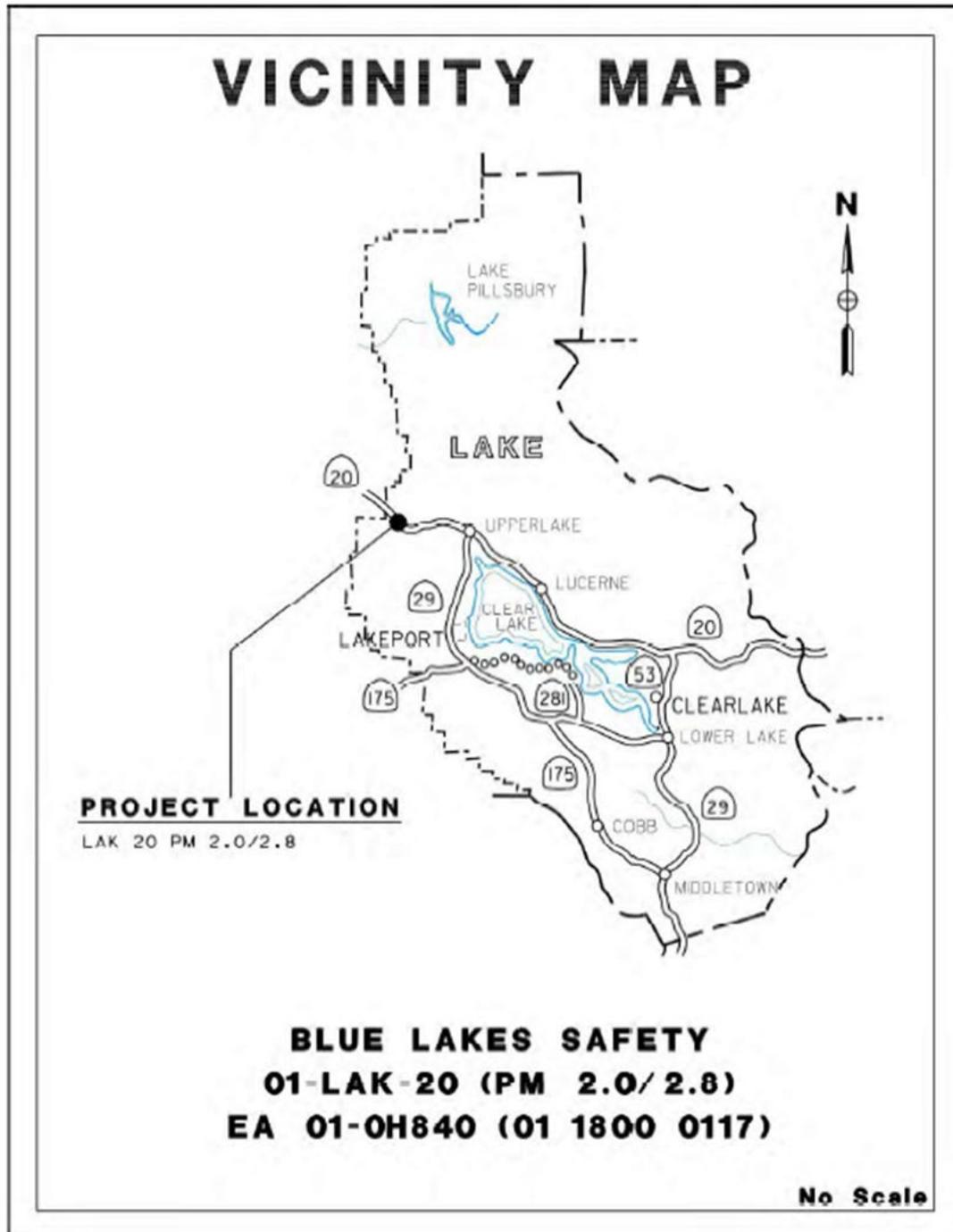
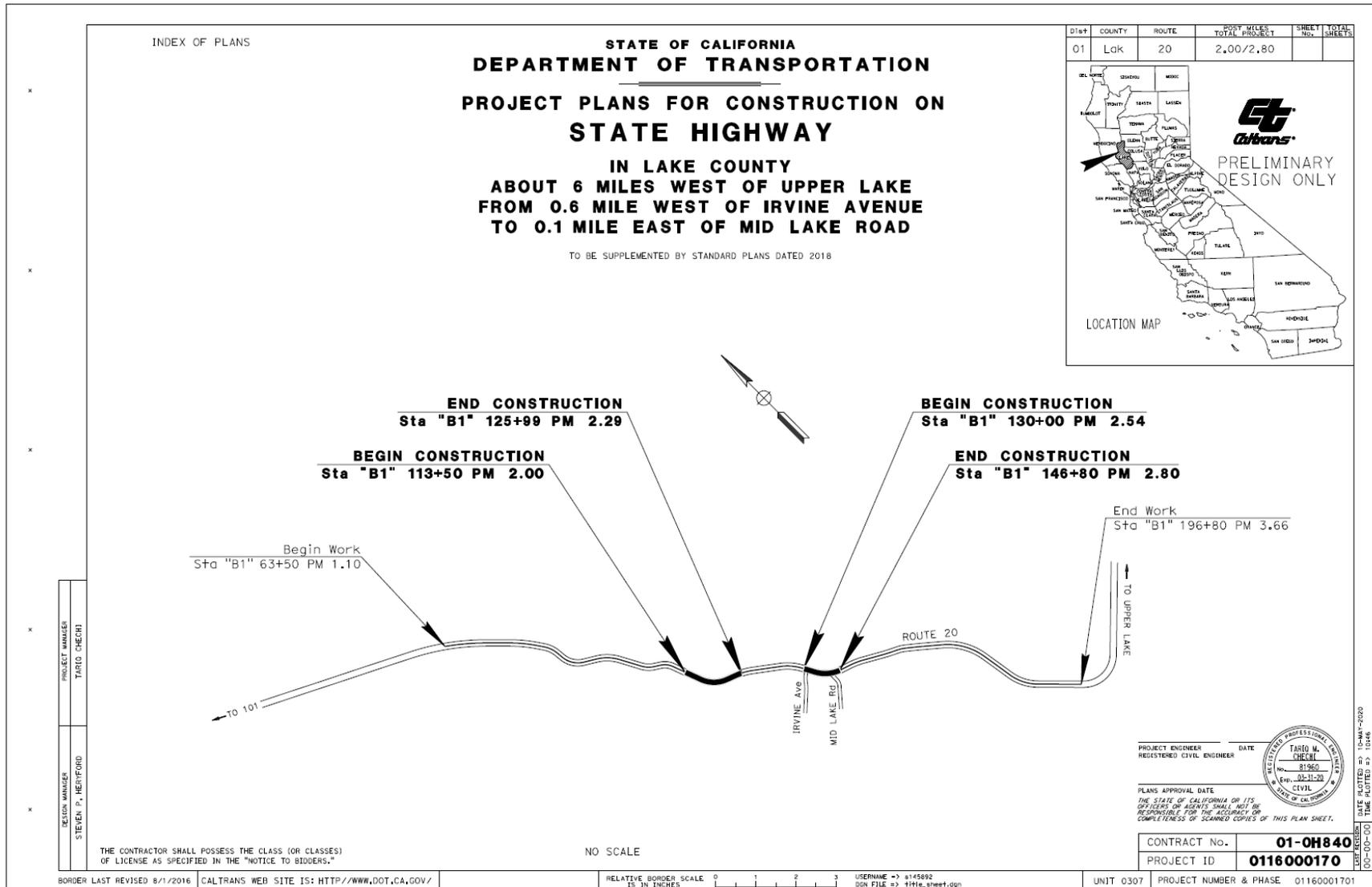


Figure 2. Project Location Map



## 1.4 Permits and Approvals Needed

The proposed 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 20 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:** Aesthetic treatment on retaining wall.

**VA-2:** There would be careful consideration to the look of the slope shape and restoration and revegetation with the use of erosion control measures.

**VA-3:** Disposal material would be layered at the deposit site to match the form of the local landscape to maintain a more unified appearance.

**VA-4:** Erosion control would be placed on disposal locations. Consult Landscape Architect for more ways to create a natural look of the deposits.

**VA-5:** At the end of construction all areas used for staging, access, or other construction activities shall be repaired pursuant to Section 5-1.36 "Property and Facility Preservation".

### **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 July 1, 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 used on-site for dust control/compaction, pumped to upland location for disposal, and/or hauled off-site to an appropriate facility.
- 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:

- Erosion control fabric or netting and hydroseeding to stabilize newly graded slopes.
- Climate-appropriate landscaping that reduces the need for irrigation and runoff, promotes surface infiltration, and limits the use of pesticides and fertilizers, in accordance with the statewide Model Water Efficiency Landscape Ordinance.

- Post-construction stormwater treatment controls may be required because the Project has the potential to create more than 1 acre of new impervious surface. The treatment controls would address potential stormwater impacts after construction is completed by reducing pollutant loads in runoff prior to reaching a downstream receiving water. Treatment controls would be located and sized in accordance with Caltrans design guidance and the Caltrans MS4 Permit, prioritizing treatment types that infiltrate, harvest, reuse, and/or evapotranspire the stormwater runoff. The design details and calculations for post-construction stormwater treatment controls would be identified during PS&E phase.

### **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:** 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-4:** 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:** Conduct a Pre-Construction Survey: Within 3-5 days before entering or working at the project sites, a qualified biologist shall examine the project sites, including culverts, to determine the presence/absence of standing or flowing water, and the presence and/or the potential for presence of FYLF adults, juveniles, tadpoles, or egg masses within the project area and 150 feet upstream and downstream.

- If FYLF are found during the pre-construction survey, Caltrans shall:
  - Consult CDFW immediately by either telephone or email and shortly describe observations, including a count of individuals and the life stage(s), conditions at the site, and other aquatic species observed; and
  - Propose site-specific measures utilized, including but not limited to exclusionary fencing.
- If no FYLFs are found during the pre-construction survey and no surface water is present in the project area, work may commence without further surveys.

**AS-2:** Construction would take place while the culverts are dry and utilizing a work window of June 15 to October 15, which would most likely be outside the breeding season (based on precipitation/temperature of the specific year) to further minimize encountering FYLF during construction.

**AS-3:** Caltrans proposes to remove vegetation outside of the bird nesting season, which occurs from February 1 to September 30. If vegetation removal occurs during the nesting season, a pre-construction survey for nesting birds would be conducted by a qualified biologist. If no active bird nests are found during pre-construction surveys, then vegetation would be removed within fourteen days. Impacts to migratory birds and their habitats are not anticipated; however, if active bird nests are found, an appropriate buffer would be established, and Caltrans shall coordinate with the USFWS regarding appropriate action to comply with the Migratory Bird Treaty Act of 1918, and with the CDFW to comply with the provisions of the CFGC.

**AS-4:** To ensure accordance with state and federal laws, Caltrans would comply with Caltrans' Standard Specifications Section 14-6.03B.

**AS-5:** If a lapse in project related work of fifteen (15) days or longer occurs, another survey and, if required, coordination with USFWS and the CDFW would occur before work can be reinitiated.

**AS-6:** If an injured or dead bird or migratory or nongame bird nest that may be adversely affected by construction activities is discovered, all work within a 100 foot radius of the discovery will be stopped and the project engineer will be notified immediately.

### **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, would 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 proposed project. Please see the CEQA checklist on the following pages for additional information.

<b>Potential Impact Area</b>	<b>Impacted: Yes / No</b>
<b>Aesthetics</b>	Yes
Agriculture and Forestry	No
<b>Air Quality</b>	Yes
<b>Biological Resources</b>	Yes
Cultural Resources	No
Energy	No
<b>Geology/Soils</b>	Yes
<b>Greenhouse Gas Emissions</b>	Yes
<b>Hazards and Hazardous Materials</b>	Yes
<b>Hydrology/Water Quality</b>	Yes
Land Use/Planning	No
Mineral Resources	No
<b>Noise</b>	Yes
Population/Housing	No
Public Services	No
Recreation	No
Transportation/Traffic	No
Tribal Cultural Resources	No
<b>Utilities/Service Systems</b>	Yes
Wildfire	No
<b>Mandatory Findings of Significance</b>	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 proposed 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 its 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 acres 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 acres 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 acres 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
<b>Would the project:</b> a) Have a substantial adverse effect on a scenic vista?	No	No	Yes	No
<b>Would the project:</b> 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
<b>Would the project:</b> 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
<b>Would the project:</b> 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 Impact” determinations in this section are based on information provided in the Visual Impact Assessment prepared February 4, 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

The project location is on a rural minor arterial portion of State Route 20 that serves local and recreational traffic and through trips between Ukiah and Clear Lake. Currently, the project corridor is a mix of commercial and private residential space, set within a semi-rural environment. Residents living immediately adjacent to the project can be most invested in its aesthetics, as their greatest concern would be towards the value

and livability of their own properties. Commuters would benefit from the improved visibility for the road navigation and become more visually aware of the surrounding hillsides and vistas. For those used to the area, the loss of the hill would be obvious. Long distance highway users in motor vehicles would perceive the area as a cumulative sequence of views and may not focus as acutely as specific roadway features. For bicyclists who may travel this area, they would be highly aware of their visual surroundings due to their longer duration of views, slower pace, and viewing proximity.

The disposal quarry currently already contains unnatural tiering with exposed soil and rock, and once construction starts viewer sensitivity would likely become even more negatively impacted. However, once avoidance and minimization measures are completed, the disposal area would ultimately be more compatible with rest of the hillside and roadway corridor than how it currently is, and viewer sensitivity would become minor.

### **DISCUSSION OF ENVIRONMENTAL EVALUATION QUESTION 2.3—AESTHETICS**

- a) The proposed project would create moderately-low changes to the visual environment. Implementation of the project would expose motorists/travelers to short-term construction activities such as construction staging, exposed surface, construction debris, equipment and truck traffic. The impacts would cease when construction is completed. The long-term visual impacts that would occur include views of soil nail wall, RSP, and cut slope. The minimization measures would help reduce the potential visual impact of the project. These include aesthetic treatment on retaining wall and careful consideration to the look of the slope shape and restoration and revegetation with the use of erosion control measures. Therefore, this impact would be less than significant.
- b) While other sections of SR 20 are either designated scenic highways or eligible for classification as such, a portion of this project's working limits is listed as Eligible State Scenic Highway. The project's work would require earthwork and adjacent vegetation and tree removal, but no significant quantities of unique landscape features would be removed that would potentially affect SR 20's listing as an Eligible State Scenic Highway. Therefore, this impact would be less than significant.
- c) Although the proposed project would be removing hillside and vegetation, the visual character and quality of the proposed project would be compatible with the visual character and quality of the existing roadway corridor. Review of the project site and project plans indicate that the project would not result in substantial adverse impacts to the visual environment. The disposal site may have an initial negative visual impact during construction. Once avoidance and minimization measures are implemented the overall visual impact and quality would improve and likely even be enhanced. Therefore, this impact would be less than significant.
- d) The proposed project is expected to be completed during normal working daylight hours and not necessitate nighttime illumination. Therefore, no

substantial new source of lighting or glare is proposed as part of the project.  
There is no impact.

## **AVOIDANCE AND MINIMIZATION EFFORTS**

The following minimization measures would be implemented to reduce impacts to natural communities.

- Aesthetic treatment on retaining wall.
- Careful consideration to the look of the slope shape and restoration and revegetation with the use of erosion control measures.
- Layer the disposal material at the deposit site to match the form of the local landscape to maintain a more unified appearance.
- Place erosion control on disposal locations.
- Consult Landscape Architect for more ways to create a natural look of the deposits.
- At the end of construction all areas used for staging, access, or other construction activities shall be repaired pursuant to Section 5-1.36 "Property and Facility Preservation.

## **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
<p><b>Would the project:</b> 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?</p>	No	No	No	Yes
<p><b>Would the project:</b> b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?</p>	No	No	No	Yes
<p><b>Would the project:</b> 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))?</p>	No	No	No	Yes
<p><b>Would the project:</b> d) Result in the loss of forest land or conversion of forest land to non-forest use?</p>	No	No	No	Yes
<p><b>Would the project:</b> 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?</p>	No	No	No	Yes

“No Impact” determinations in this section are based on California Department of Conservation and Natural Resources Conservation Service Farmland Maps as well as the description and location of the proposed project. No Williamson Act land, Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or forest land was identified within the project limits. Potential impacts to Agriculture and Forest Resources are not anticipated due to the following:

- a) Land classified as Rural Lands (RL), Resort Commercial (RC), and Low Density Residential (LDR) are located adjacent to the project. The project would not convert any land currently used for agriculture to non-agricultural use. Therefore, there is no impact.
- b) There are no parcels under a Williamson Act contract within the project limits. Therefore, there is no impact.
- c) No forest land, timberland, or timberland zoned Timberland Production was identified within the project limits. Therefore, there is no impact.
- 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. Therefore, there is no impact.
- e) There would be no other changes to farmland or forest land. Therefore, there is no impact.

## **AVOIDANCE AND MINIMIZATION EFFORTS**

Based on the determinations made in the CEQA Checklist, avoidance and minimization measures have not been proposed for 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.

## 2.5 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.

<b>Question</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>Would the project:</b> a) Conflict with or obstruct implementation of the applicable air quality plan?	No	No	No	Yes
<b>Would the project:</b> 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
<b>Would the project:</b> c) Expose sensitive receptors to substantial pollutant concentrations?	No	No	No	Yes
<b>Would the project:</b> 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 30, 2019. 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<sub>2</sub>), ozone (O<sub>3</sub>), particulate matter (PM), which is broken down for regulatory purposes into particles of 10 micrometers or smaller (PM<sub>10</sub>) and particles of 2.5 micrometers and smaller (PM<sub>2.5</sub>), and sulfur dioxide (SO<sub>2</sub>). In addition, national and

state standards exist for lead (Pb) and state standards exist for visibility-reducing particles, sulfates, hydrogen sulfide (H<sub>2</sub>S), 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**

Lake County is designated as in attainment of all federal and state criteria air pollutant standards.

### ***DISCUSSION OF ENVIRONMENTAL EVALUATION QUESTION 2.5—AIR QUALITY***

a - c) Lake County is designated as in attainment of all federal and state criteria air pollutant standards. 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. Therefore, there is no impact.

d) The proposed project may result in the generation of short-term, construction-related air emissions, but these emissions would be temporary and limited to the immediate area surrounding the construction site. The project would comply with the Caltrans Standard Specifications Section 14-9 “Air Pollution Control” which requires compliance by the contractor with all applicable laws and regulations related to air quality, including the Lake County Air Quality Management District regulations and local ordinances. The project would also comply with Caltrans Standard Specifications Section 18-1.01 “Dust Palliatives” which requires that water or a dust palliative be applied to the site and equipment as often as necessary to control fugitive dust emissions. Construction equipment and vehicles would be properly tuned and maintained. All construction equipment would use low-sulfur fuel as required by CA Code of Regulations Title 17, Section 93114.

Track out reduction measures would be used to minimize dust and mud deposits on roads affected by construction traffic. Dust and mud that is deposited on paved, public roads due to construction activity and traffic would be promptly and regularly removed. Therefore, this impact would be less than significant.

## **AVOIDANCE AND MINIMIZATION EFFORTS**

Based on the determinations made in the CEQA Checklist, avoidance and minimization measures have not been proposed for 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.

## 2.6 Biological Resources

<b>Question</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<p><b>Would the project:</b> 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?</p>	No	No	Yes	No
<p><b>Would the project:</b> 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?</p>	No	No	Yes	No
<p><b>Would the project:</b> 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?</p>	No	No	No	Yes
<p><b>Would the project:</b> 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?</p>	No	No	Yes	No
<p><b>Would the project:</b> e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?</p>	No	No	No	Yes
<p><b>Would the project:</b> 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?</p>	No	No	No	Yes

“No Impact,” and “Less Than Significant Impact” 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 (CNDDDB). 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 project area lies approximately 1,400 feet above mean sea level. Data from the Upper Lake weather station number 049173 shows that the project area has a mean annual precipitation of 34.09 in. The average minimum temperature in January is 32.9 degrees Fahrenheit (°F) with an average maximum of 93.0°F in July (WRCC, 2002). Rain occurs mostly in the winter months and the average total snow fall is 2.0 in.

The soil type throughout the project area is classified as a Maymen-Etsel-Snook complex being derived from weathered sandstone and shale parent material (NRCS, n.d.). The typical horizon profiles consist of a gravelly loam somewhat excessively drained. Topography is steep on both sides of the roadway, with slopes ranging from 35 to 75 percent.

There are 12 culverts exist within the project area. All culverts except the two box culverts located at PM 2.62 are non-jurisdictional features. One culvert at PM 1.95 and 1 at PM 2.05 exist that convey roadside/hillside runoff. The culvert at PM 2.05 has rock slope protection (RSP) at its outlet. One 18 inch diameter corrugated steel pipe (CSP) culvert exists at PM 2.13 and 1 at PM 2.2 that conveys roadside/hillside runoff. The culvert at PM 2.13 has RSP at its inlet and conveys runoff underneath SR 20 to discharge into Blue Lakes. The culvert at PM 2.2 has a storm drain inlet and conveys runoff underneath SR 20 to discharge into Blue Lakes. One CSP culvert exists at PM 2.27 that conveys hillside/roadside runoff underneath SR 20 and discharges into Blue Lakes. One CSP culvert exists at PM 2.38 that conveys roadside/hillside runoff underneath SR 20 out of a heavily vegetated outlet leading into Blue Lakes. One CSP culvert exists at PM 2.43 that conveys roadside/hillside runoff underneath SR 20 and discharges directly into Blue Lakes. At PM 2.48, an existing corrugated plastic culvert conveys roadside/hillside runoff underneath SR 20 and discharges into Blue Lakes. At PM 2.62, an existing 5 foot high by 7 foot wide by 57 foot long box culvert and an

existing 5 foot high by 3 foot wide by 57 foot long box culvert transports water from a rocky bedded stream with a vegetated bank and channel. Both culverts at PM 2.62 convey the same stream. An 18 inch diameter CSP culvert exists at PM 2.71 and also PM 2.76, both convey roadside/hillside runoff underneath SR 20 and discharge to the southern side of the roadway.

The project falls within the Inner North Coast Ranges District (NCoRI) of the California Floristic Province, as defined by the Jepson Manual. This district is characterized by low rainfall with hot and dry summers. The district's biome types include chaparral and pine/oak woodlands. The study area's overstory species includes pacific madrone (*Arbutus menziesii*), interior live oak (*Quercus wislizeni*), valley oak (*Quercus lobata*), Fremont cottonwood (*Populus fremontii*), and California bay (*Umbellularia californica*). Shrub and herbaceous species include, but are not limited to, toyon (*Heteromeles arbutifolia*), himalayan blackberry (*Rubus armeniacus*), poison oak (*Toxicodendron diversilobum*), and common manzanita (*Arctostaphylos manzanita*).

### **Natural Communities**

#### **Riparian Habitat**

Riparian habitat is present within the ESL south of SR 20 and along the bank of Blue Lakes. Many of the culvert locations are densely vegetated at the inlets and/or outlets. Riparian vegetation at these locations are predominantly composed of California bay laurel (*Umbellularia californica*), coyote brush (*Baccharis pilularis*), poison oak, blackberry (*Rubus spp.*), Oregon ash (*Fraxinus latifolia*), white alder (*Alnus rhombifolia*), willow, pacific madrone, and Fremont cottonwood.

#### **Wetlands and Other Waters**

Visual surveys were conducted at the 11 culverts' inlet and discharge locations. The two culverts at PM 2.62 were noted to convey a second order intermittent stream and are considered potentially jurisdictional other waters of the U.S. (OWUS) because of their connection to Blue Lakes, which is subject to CWA 404 jurisdiction. All OWUS are also considered Waters of the State. The culverts at PM 2.13 and PM 2.2 were not considered potentially jurisdictional due to their lack of bed, bank, channel, and ordinary high-water mark (OHWM).

#### **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. No special-status plant species were found in the ESL. Work would not affect special-status plants or their habitats.

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
<i>Amsinckia lunaris</i>	Bent-flowered fiddleneck	-/ -/ -/ List 1B.2	Coastal bluff scrub, cismontane woodland, valley and foothill grassland.	Absent	No impact. Not observed during botanical surveys. Assumed not present in project area.
<i>Arctostaphylos stanfordiana</i> ssp. <i>raichei</i>	Raiche's manzanita	-/ -/ -/ List 1B.1	Chaparral, lower montane coniferous forest (openings)/rocky, often serpentinite.	Absent	No impact. No suitable habitat present in project area.
<i>Astragalus breweri</i>	Brewer's milk-vetch	-/ -/ -/ List 4.2	Chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland (open, often gravelly)/often serpentinite, volcanic.	Absent	No impact. No suitable habitat present in project area.
<i>Brasenia schreberi</i>	Watershield	-/ -/ -/ List 2B.3	Freshwater marshes and swamps.	Absent	No impact. No suitable habitat present in project area.
<i>Calycadenia micrantha</i>	Small-flowered calycadenia	-/ -/ -/ List 1B.2	Chaparral, valley and foothill grassland, meadows and seeps. Rocky talus or scree; sparsely vegetated areas, sometimes on roadsides; sometimes serpentine.	Absent	No impact. Not observed during botanical surveys. Assumed not present in project area.

<i>Carex comosa</i>	Bristly sedge	-/ -/List 2B.1	Coastal prairie, marshes and swamps (lake margins), valley and foothill grassland.	Absent	No impact. No suitable habitat present in project area.
<i>Grimmia torenii</i>	Toren's grimmia	-/ -/List 1B.3	Chaparral, cismontane woodland, limestone, lower montane coniferous forest. Openings, rocky, boulder and rock walls, carbonate, volcanic.	Absent	No impact. No suitable habitat present in project area.
<i>Hesperolinon adenophyllum</i>	Glandular western flax	-/ -/List 1B.2	Chaparral, cismontane woodland, valley and foothill grassland/usually serpentinite.	Absent	No impact. Not observed during botanical surveys. Assumed not present in project area.
<i>Streptanthus glandulosus</i> ssp. <i>Hoffmanii</i>	Hoffman's bristly jewel-flower	-/ -/List 1B.3	Rocky, chaparral; Cismontane woodland; valley and foothill grasslands/often serpentinite.	Absent	No impact. No suitable habitat present in project area.

<sup>1</sup>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. Suitable habitat for, or observations of, foothill yellow-legged frog (*Rana boylei*) (FYLF), clear lake hitch (*Lavinia exilicauda chi*), western pond turtle (*Emys marmorata*), and osprey (*Pandion haliaetus*) is present within the ESL.

### **Foothill Yellow-Legged Frog**

Surveys for the presence of FYLF were conducted May 22, 2019, June 28, 2019, and March 24, 2020. The culvert at PM 2.62 was identified as the only potential location for FYLF within the project's ESL; however, this culvert was dry during the visits on June 28, 2019 and March 24, 2020. The visit on March 24, 2020 was during a rain event. This intermittent creek drains into Blue Lakes immediately downstream of the project location; therefore, the likelihood for FYLF presence is low.

### **Clear Lake Hitch**

No Clear Lake hitch were observed during field surveys. Observational data from the Chi Council for the Hitch was reviewed from 2005 - 2018 to determine observations within two miles of the project location.

### **Western Pond Turtle**

Suitable habitat is present within the ESL, however no western pond turtles were observed during field surveys. Potential nesting habitat is sparse due to the project area's terrestrial and riparian environment being densely vegetated. Blue Lakes provides favorable aquatic habitat, featuring emergent logs where the turtles can bask.

### **Osprey**

Suitable habitat is present within the ESL. An osprey nest is present at approximately PM 2.08 atop a tree, south of SR 20, between the roadway and Blue Lakes. An osprey was observed building the nest at PM 2.08 while driving to the disposal site field survey on April 20, 2020.

**Table 3 – Special-Status Animals and Critical Habitat Potentially Occurring or Known to Occur in the Project Area**  
**Amphibians List**

Scientific Name	Common Name	Federal/State Other/ CNPS	Habitat	Habitat Present/ Absent	Rationale
<i>Rana boylei</i>	Foothill yellow-legged frog	-/ SSC/-	Creeks or rivers in woodlands or forests with rock and gravel substrate and low overhanging vegetation along the edge.	Present	No impact. Work would occur during the dry season when no water is present in the creek. Would not result in "take".
<i>Rana draytonii</i>	California red-legged frog	T/ SSC/-	Permanent and semi-permanent aquatic habitats such as creeks and cold water ponds, with emergent and submergent vegetation.	Absent	No effect/No Impact. No suitable habitat present in project area.
<i>Taricha rivularis</i>	Red-bellied newt	-/ SSC/-	Coastal drainages from Humboldt county south to Sonoma county, inland to Lake county. Lives in terrestrial habitats, juveniles generally underground, adults active at surface	Absent	No impact. No suitable habitat present in project area.

			in moist environments. Will migrate over 1 km to breed, typically in streams with moderate flow and clean rocky substrate.		
--	--	--	--	--	--

**Birds List**

Scientific Name	Common Name	Federal/State Other/CNPS	Habitat	Present/Absent	Rationale
<i>Agelaius tricolor</i>	Tricolored blackbird	-/T  SSC/-	Nests in emergent wetland vegetation such as tules or cattails, or at upland sites with blackberry shrubs, nettles, and thistles.	Absent	No impact. No suitable habitat present in project area. Would not result in "take".
<i>Pandion haliaetus</i>	Osprey	-/-  WL/-	Nests in snags, trees, or utility poles near the ocean, large lakes, or rivers with abundant fish populations.	Present	Avoidance and minimization measures utilized. Would not result in "take".

<p><i>Phalacrocorax auritus</i></p>	<p>Double-crested cormorant</p>	<p>-/-  WL/-</p>	<p>Resident of the coast, inland lakes, estuaries, salt ponds with unvegetated rocks, islands, cliffs, trees, or structures for roosting.</p>	<p>Absent</p>	<p>No impact. No suitable habitat present in project area. Would not result in "take".</p>
<p><i>Strix occidentalis caurina</i></p>	<p>Northern spotted owl</p>	<p>T/T  -/-</p>	<p>Dense old-growth or mature forests dominated by conifers with topped trees or oaks available for nesting crevices.</p>	<p>Absent</p>	<p>No effect. No suitable habitat present in project area. Would not result in "take".</p>

<i>Agelaius tricolor</i>	Tricolored blackbird	-/T  SSC/-	Nests in emergent wetland vegetation such as tules or cattails, or at upland sites with blackberry shrubs, nettles, and thistles.	Absent	No impact. No suitable habitat present in project area. Would not result in "take".
--------------------------	----------------------	------------------	---	--------	---

**Fish List**

Scientific Name	Common Name	Federal/State Other/CNPS	Habitat	Present/ Absent	Rationale
<i>Lavinia exilicauda chi</i>	Clear Lake hitch	-/T  -/-	Endemic to Clear Lake and its tributaries.	Present	No impact. No work would occur in Blue Lakes. Work would occur during the dry season when no water was present in the creek at PM 2.62. Would not result in "take".
<i>Hypomesus transpacificus</i>	Delta smelt	T/-  -/-	Endemic to the San Francisco Bay and Sacramento-San Joaquin Delta Estuary.	Absent	No effect. No suitable habitat present in project area.

<i>Oncorhynchus kisutch</i>	Central California coast (CCC) coho salmon	E/E  -/-	Cool freshwater streams and rivers, require sand and gravel for spawning.	Absent	No effect. No suitable habitat present in project area. Would not result in "take".
<i>Oncorhynchus mykiss</i>	Central California coast (CCC) steelhead	T/-  -/-	Spawns in gravel-bottomed, high velocity rivers and streams; migrates to ocean.	Absent	No effect. No suitable habitat present in project area.
<i>Oncorhynchus tshawytscha</i>	California coastal Chinook salmon	T/-  -/-	Ocean and coastal streams.	Absent	No effect. No suitable habitat present in project area.

**Invertebrate List**

Scientific Name	Common Name	Federal/State Other/CNPS	Habitat	Present/ Absent	Rationale
-----------------	-------------	-----------------------------	---------	-----------------	-----------

<i>Bombus occidentalis</i>	Western bumble bee	-/CE  -/-	Open grassy areas, urban parks and gardens, chaparral, meadows. Generalist forager. Nests above or underground.	Absent	No impact. No suitable habitat present in project area.
----------------------------	--------------------	-----------------	---	--------	---

**Mammal List**

Scientific Name	Common Name	Federal/State Other/CNPS	Habitat	Present/ Absent	Rationale
<i>Antrozous pallidus</i>	Pallid bat	-/  SSC/-	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.

<i>Taxidea taxus</i>	American badger	-/ SSC/-	Typically found in open areas with scattered shrubs and trees. Also found in open forests, particularly Ponderosa pine.	Absent	No impact. No suitable habitat present in project area.
----------------------	-----------------	-------------	---	--------	---

**Reptile List**

Scientific Name	Common Name	Federal/State Other/CNPS	Habitat	Present/ Absent	Rationale
<i>Chelonia mydas</i> (including <i>agassizi</i> )	Green sea turtle	T/ -/-	Primarily use three types of habitat: oceanic beaches (for nesting), convergence zones in the open ocean, and benthic feeding grounds in coastal areas.	Absent	No effect. No suitable habitat present in project area.

<i>Emys marmorata</i>	Western pond turtle	-/ SSC/-	Permanent or mostly permanent waters in a variety of habitats.	Present	No impact. No work would occur in Blue Lakes. Work would occur during the dry season when no water is present in the creek at PM 2.62. Additionally, species was not observed within BSA.
-----------------------	---------------------	-------------	--	---------	---

<b>Habitat Name</b>	<b>Habitat Description</b>	<b>Present/Absent</b>	<b>Rationale</b>
Coastal and Valley Freshwater Marsh	Marshes that are continuously or frequently flooded with freshwater, lacks currents, non-tidal, non-forested marsh wetland.	Absent	No suitable habitat present in project area.
CCC Coho Critical Habitat	Encompasses accessible reaches of all rivers (including estuarine areas and tributaries) between Punta Gorda and the San Lorenzo River (inclusive) in California.	Absent	No effect. Critical habitat is not present.

Coho Essential Fish Habitat	Below OHWM.	Absent	No effect. Critical habitat is not present.
Chinook Salmon Essential Fish Habitat	Below OHWM.	Absent	No effect. Critical habitat is not present.
Waters of the U.S. and State	Waters of the U.S. and State include ephemeral, intermittent, and perennial drainages that have an OHWM and also includes rivers, streams, lakes, wetlands, mudflats, vernal pools, and other aquatic sites.	Present	Work would occur when the drainages are dry. No work would occur in Blue Lakes.

<sup>1</sup>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

### ***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., riparian) 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***

No special-status plant species were found in the ESL. Work would not affect special-status plants or their habitats.

### **AVOIDANCE AND MINIMIZATION EFFORTS**

Based on the determinations made in the CEQA Checklist, mitigation measures have not been proposed for Northern California black walnuts for this project.

### **MITIGATION MEASURES**

Based on the determinations made in the CEQA Checklist, mitigation measures have not been proposed for Northern California black walnuts for this project.

### ***Animal Species***

#### **Foothill Yellow-Legged Frog (FYLF)**

Excavation and construction of a sight bench would occur from approximately PM 2.61 to PM 2.71. Installation of a drainage pipe would occur at the base of the site bench and convey waters to the culvert inlet at PM 2.62. Minor tree/vegetation removal would occur and have the potential to decrease the amount of refuge habitat at this location. Impacts are expected to be less than significant with implementing avoidance and minimization measures.

## **AVOIDANCE AND MINIMIZATION EFFORTS**

The following project features would be implemented during construction:

- Conduct a Pre-Construction Survey: Within 3-5 days before entering or working at the project sites, a qualified biologist shall examine the project sites, including culverts, to determine the presence/absence of standing or flowing water, and the presence and/or the potential for presence of FYLF adults, juveniles, tadpoles, or egg masses within the project area and 150 feet upstream and downstream.
  - If FYLF are found during the pre-construction survey, Caltrans shall:
    - Consult CDFW immediately by either telephone or email and shortly describe observations, including a count of individuals and the life stage(s), conditions at the site, and other aquatic species observed; and
    - Propose site-specific measures utilized, including but not limited to exclusionary fencing.
  - If no FYLFs are found during the pre-construction survey and no surface water is present in the project area, work may commence without further surveys.
- Construction would take place while the culverts are dry and utilizing a work window of June 15 to October 15, which would most likely be outside the breeding season (based on precipitation/temperature of the specific year) to further minimize encountering FYLF during construction.

## **MITIGATION MEASURES**

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

### **Clearlake Hitch**

Coordination with CDFW indicates there are no clear lake hitch present within Blue Lakes or Lower Blue Lakes. No work would occur in Blue Lakes, Lower Blue Lakes, or Scotts Creek. The project would not result in “take” of clear lake hitch. Therefore, there would be no impact.

### **AVOIDANCE AND MINIMIZATION EFFORTS**

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

### **MITIGATION MEASURES**

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

#### **Western Pond Turtle**

Work would occur during the dry season when no water is present in the creek at PM 2.62. Removal of trees adjacent to the creek would expose the area to more sunlight and potentially create more nesting habitat. No work would occur in Blue Lakes, therefore no impact is anticipated toward the species.

### **AVOIDANCE AND MINIMIZATION EFFORTS**

No avoidance and minimization measures are proposed. Caltrans has determined that the project would have no impact to western pond turtle and would not result in “take.

### **MITIGATION MEASURES**

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

#### **Osprey**

Approximately 100 trees would require removal to facilitate construction activities, however, the osprey nest tree is not anticipated to be removed as a result of project activities. The trees being removed are primarily located to the north of the roadway. If the osprey nest is found to be active, coordination with CDFW and USFWS would be consulted with for further guidance and coordination. No impact is anticipated due to a work window outside of the nesting period of osprey.

### **AVOIDANCE AND MINIMIZATION EFFORTS**

The following project features would be implemented during construction:

- Caltrans proposes to remove vegetation outside of the bird nesting season, which occurs from February 1 to September 30. If vegetation removal occurs during the nesting season, a pre-construction survey for nesting birds would be conducted by

a qualified biologist. If no active bird nests are found during pre-construction surveys, then vegetation would be removed within fourteen days. Impacts to migratory birds and their habitats are not anticipated; however, if active bird nests are found, an appropriate buffer would be established, and Caltrans shall coordinate with the USFWS regarding appropriate action to comply with the Migratory Bird Treaty Act of 1918, and with the CDFW to comply with the provisions of the CFGC.

- To ensure accordance with state and federal laws, Caltrans would comply with Caltrans' Standard Specifications Section 14-6.03B.
- If a lapse in project related work of fifteen (15) days or longer occurs, another survey and, if required, coordination with USFWS and the CDFW would occur before work can be reinitiated.
- If an injured or dead bird or migratory or nongame bird nest that may be adversely affected by construction activities is discovered, all work within a 100 foot radius of the discovery will be stopped and the project engineer would be notified immediately.

## **MITIGATION MEASURES**

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

## **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**

Approximately 0.10 acres of riparian habitat would be permanently impacted.

Permanent impacts of approximately 0.04 acres near the rail element wall locations along the bank of Blue Lakes and approximately 0.06 acres of riparian habitat at the 4 culvert locations are anticipated due to the proposed project activities (*please see Table 4: Impacts to OWUS and State below*). Permanent impacts would be less than significant at all locations.

## **AVOIDANCE AND MINIMIZATION EFFORTS**

The following project features would be implemented during construction:

- Removal of vegetation would be conducted outside of the anticipated nesting season of February 1 to September 30 after fledging of birds and before initiating breeding activities.
- If vegetation removal during the non-nesting season is infeasible, then pre-construction bird nest surveys would be performed to locate potential 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 qualified contractor supplied biologist. If active bird nests are found, Caltrans would coordinate with the USFWS regarding 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.
- Removal of riparian vegetation shall not exceed the minimum amount necessary for construction activities. If feasible, flagging or staking would delineate the work area.

## **MITIGATION MEASURES**

Mitigation for riparian impacts is not currently proposed but may be required upon consultation with CDFW regarding the 1602 LSAA.

## **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**

At PM 2.62, an existing 5 foot high by 7 foot wide by 57 foot long box culvert and an existing 5 foot high by 3 foot wide by 57 foot long box culvert would be extended by approximately 19 feet.

This project proposes to replace and/or extend 4 culverts. Permanent impacts to approximately 0.009 acres of OWUS would occur due to activities associated with the replacement/extension of the culverts. Due to staging and access, permanent impacts to waters would occur from equipment/crews maneuvering within the channel. Table 4 details the impacts to OWUS and waters of the State at each culvert.

**Table 4: Impacts to OWUS and State.**

	Permanent Impacts	
Location	Linear Feet (LF)	Square Feet (sqft)
Location 1 – PM 2.62	29	233
Location 2 – PM 2.62	29	157
<b>Total</b>	<b>58 LF</b>	<b>390 sqft (0.009 acre)</b>

## AVOIDANCE AND MINIMIZATION EFFORTS

The following project features would be implemented during construction:

- To avoid direct impacts to water quality, work would be performed while the culverts are dry and utilizing a work window of June 15 to October 15.
- Before initiating project activities, the contractor would prepare a toxic materials control and spill response plan per Caltrans contract specifications and resource permit requirements.
- Equipment refueling would only occur at staging areas where fuel would not enter the sensitive areas.
- Soils exposed by project operations would be treated to prevent sediment runoff and transport.
- Erosion control measures would include proper installation and maintenance of approved BMPs and may include applications of seed, certified weed-free straw, compost, fiber stabilizing emulsion and mulch, or a combination thereof. Upon completion of project, areas of disturbance on streambanks shall be stabilized with a hydroseed mixture of native species.

- Work would not occur within the potentially jurisdictional drainage channel at the northern end of the disposal site.

No compensatory mitigation is proposed.

## **MITIGATION MEASURES**

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

## ***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?

### **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 a “Less Than Significant Impact” on FYLF.

### **Clearlake Hitch**

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

### **Western Pond Turtle**

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

### **Osprey**

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

### **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.

### **List of Proposed Biological Mitigation Measures**

#### **Foothill-Yellow Legged Frog**

No compensatory mitigation is proposed.

#### **Clearlake Hitch**

No compensatory mitigation is proposed.

#### **Western Pond Turtle**

No compensatory mitigation is proposed.

#### **Osprey**

No compensatory mitigation is proposed

#### **Riparian Habitat**

Compensatory mitigation for riparian impacts is not currently proposed but may be required upon consultation with CDFW regarding the 1602 LSAA.

#### **Wetlands**

No compensatory mitigation is proposed.

**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

<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>Would the project:</b> a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	No	No	No	Yes
<b>Would the project:</b> b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	No	No	No	Yes
<b>Would the project:</b> c) Disturb any human remains, including those interred outside of dedicated cemeteries?	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 from April 16, 2020.

### 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)<sup>1</sup> 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.

## **ENVIRONMENTAL SETTING**

Record searches, literature reviews, consultation, and surveys identified one potential cultural resource within the proposed project’s study limits. This property in the Area of Potential Effects (APE) required formal evaluation. The potential resource is a rock pier line connected with metal chain railing along a highway pull out. It was concluded that the structure is not eligible for listing in the National Register of Historic Properties (NRHP). This conclusion is pursuant with Stipulation VIII.C of the Section 106 PA. Additionally, pursuant to Section 15064.5(a)(2)-(3) of the California Environmental Quality Act (CEQA), using criteria outlined in Section 5024.1 of the California Public

---

<sup>1</sup> The MOU is located on the SER at [http://www.dot.ca.gov/ser/vol2/5024mou\\_15.pdf](http://www.dot.ca.gov/ser/vol2/5024mou_15.pdf)

Resources Code (PRC), no properties within the APE are historical resources for the purposes of CEQA. This conclusion is supported by a concurrence given by the State Historic Preservation Officer (SHPO) on May 27, 2020.

### **DISCUSSION OF ENVIRONMENTAL EVALUATION QUESTION 2.7—CULTURAL RESOURCES**

a - b) One potential cultural resource was identified within the proposed project's study limits. This property in the Area of Potential Effects (APE) required formal evaluation. The potential resource is a rock pier line connected with metal chain railing along a highway pull out. It was concluded that the structure is not eligible for listing in the National Register of Historic Properties (NRHP). This conclusion is pursuant with Stipulation VIII.C of the Section 106 PA. Additionally, pursuant to Section 15064.5(a)(2)-(3) of the California Environmental Quality Act (CEQA), using criteria outlined in Section 5024.1 of the California Public Resources Code (PRC), no properties within the APE are historical resources for the purposes of CEQA. This conclusion is supported by a concurrence given by the State Historic Preservation Officer (SHPO) on May 27, 2020.

An archaeological survey of the place areas took place and no indications of cultural resources were observed within the projects three Areas of Direct Impact (ADI). There is a request from two tribes, Scotts Valley Rancheria and Habematolel Pomo of Upper Lake to monitor. A tribal monitor would be present for ground-disturbing activities that occur within the proposed work areas. Therefore, there is no impact.

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.

### **CEQA CONCLUSION**

The proposed project would result in no impact to Cultural Resources with the avoidance and minimization measures outlined below.

### **AVOIDANCE AND MINIMIZATION EFFORTS**

An archaeological and a tribal monitor would be present for ground-disturbing activities that occur within the proposed work areas.

### **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.

## 2.8 Energy

Question	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>Would the project:</b> 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
<b>Would the project:</b> 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 October 30, 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 project construction is estimated to result in the total short-term consumption of 51,320 gallons from diesel-powered equipment and 31,500 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. Therefore, there is no impact.

## **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
<p><b>Would the project:</b></p> <p>a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:</p> <p style="padding-left: 40px;">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.</p>	No	No	No	Yes
<p><b>Would the project:</b></p> <p>a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:</p> <p style="padding-left: 40px;">ii) Strong seismic ground shaking?</p>	No	No	Yes	No
<p><b>Would the project:</b></p> <p>a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:</p> <p style="padding-left: 40px;">iii) Seismic-related ground failure, including liquefaction?</p>	No	No	Yes	No
<p><b>Would the project:</b></p> <p>a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:</p> <p style="padding-left: 40px;">iv) Landslides?</p>	No	No	Yes	No
<p><b>Would the project:</b></p> <p>b) Result in substantial soil erosion or the loss of topsoil?</p>	No	No	Yes	No
<p><b>Would the project:</b></p> <p>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?</p>	No	No	No	Yes

<b>Question</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>Would the project:</b> 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
<b>Would the project:</b> 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
<b>Would the project:</b> 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 Lake 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 proposed project area is within the Clover Valley Fault. The project areas have not been identified for liquefiable soils however, the areas are shown to consist of 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: The proposed project area is within the Clover Valley Fault. The fault has not been active since the Quaternary period. Therefore, the project would not rupture a known earthquake fault, and there would be no impact.

ii-iii: The Clover Valley Fault Zone has not historically produced earthquakes in the project area, so there would be no impact. While the project area has not been evaluated for liquefaction hazards, the project would be designed to meet current State and Federal standards. Therefore, this impact would be less than significant.

iv: According to the California Geologic Survey's Landslide Inventory, there is no data on landslides in the project areas. However, the proposed project is not located in an area that is at a high risk of landslides. Therefore, this impact would be less than significant.

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.

- e) Based on preliminary review of existing published geologic maps of the area, the project area consists of Cretaceous and Jurassic sandstone with smaller amounts of shale, chert, limestone, and conglomerate which is categorized as gravelly loamy (sand, silt, and clay) 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.

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

### **AVOIDANCE AND MINIMIZATION EFFORTS—GEOLOGY AND SOILS**

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

### **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 proposed project location area consists of Mesozoic sandstone, is thus associated with the Cretaceous and Jurassic geological periods. Geology in the project area consists of Mesozoic and is thus associated with the Cretaceous and Jurassic period.

### **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 consists of Mesozoic sandstone and is thus associated with the Cretaceous and Jurassic geological periods. 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.

### **AVOIDANCE AND MINIMIZATION EFFORTS—PALEONTOLOGICAL RESOURCES**

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

### **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
<p><b>Would the project:</b></p> <p>a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?</p>	No	No	Yes	No
<p><b>Would the project:</b></p> <p>b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?</p>	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<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF<sub>6</sub>), and various hydrofluorocarbons (HFCs). CO<sub>2</sub> 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<sub>2</sub>.

Two terms are typically used when discussing how we address the impacts of climate change: "greenhouse gas mitigation" and "adaptation." Greenhouse gas 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**

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<sub>2</sub>e). 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.

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 proposed project is in a rural area, with a primarily natural-resources based agricultural and tourism economy. SR-20 is the main transportation route to and through the area for both passenger and commercial vehicles. Traffic counts are low and SR-20 is rarely congested. The Lake Area Planning Council guides transportation development. The Lake County Regional Transportation Plan addresses GHGs in the project area.

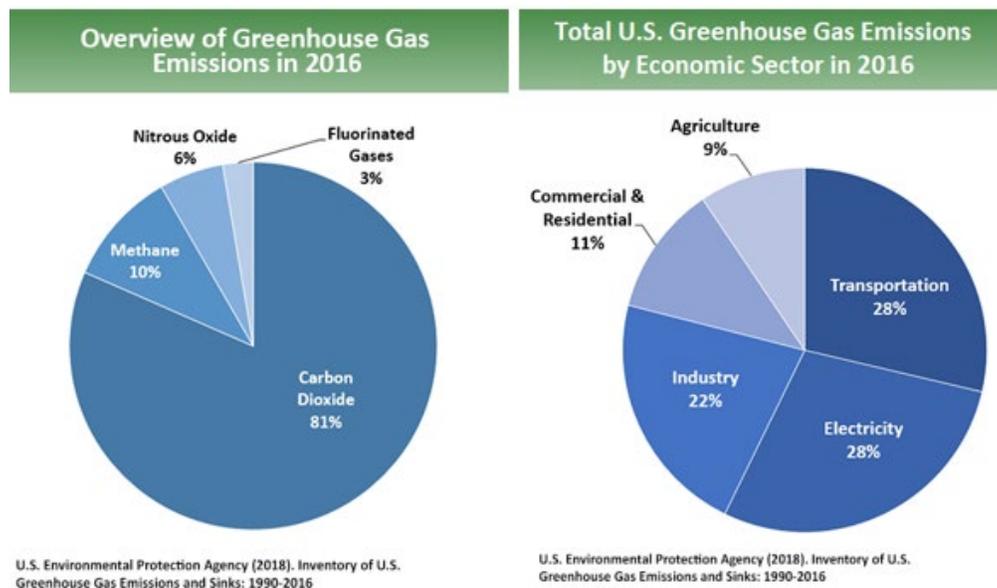
A GHG emissions inventory estimates the amount of GHGs discharged into the atmosphere by specific sources over a period of time, such as a calendar year. Tracking annual GHG emissions allows countries, states, and smaller jurisdictions to understand how emissions are changing and what actions may be 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<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, perfluorocarbons, SF<sub>6</sub>, and nitrogen trifluoride. It also accounts for emissions of CO<sub>2</sub> that are removed from the atmosphere by “sinks” such as forests, vegetation, and soils that uptake and store CO<sub>2</sub> (carbon sequestration). The 1990–2016 inventory found that of 6,511 MMTCO<sub>2</sub>e GHG emissions in 2016, 81% consist of CO<sub>2</sub>, 10% are CH<sub>4</sub>, and 6% are N<sub>2</sub>O; 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 MMTCO<sub>2</sub>e 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**

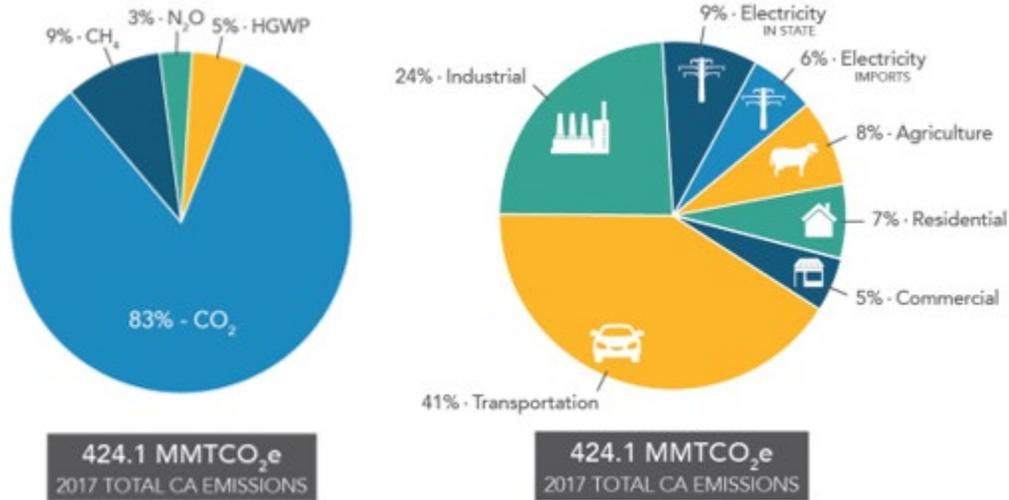
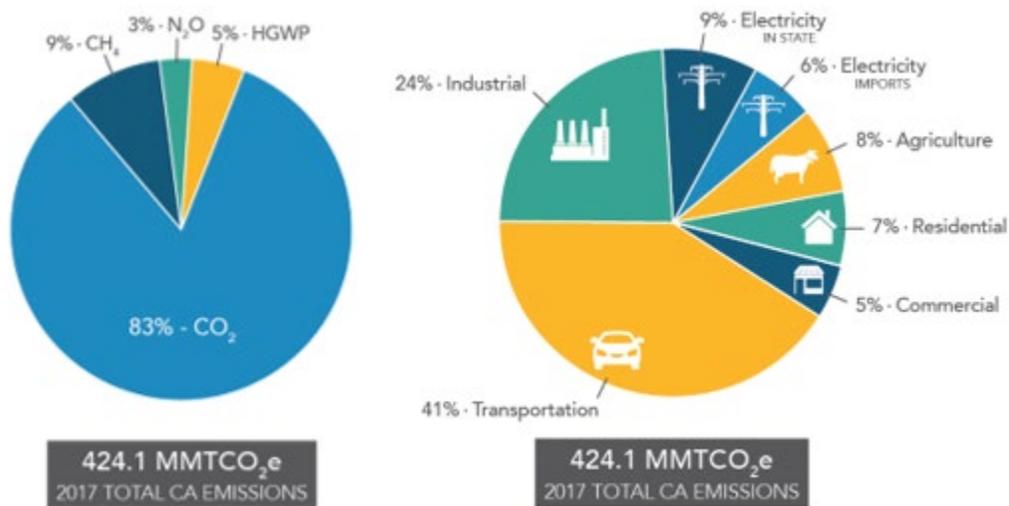


Figure 5: Change In California GDP, Population and GHG Emissions Since 2000



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 proposed project is within the jurisdiction of the Lake Area Planning Council (LAPC). The Lake County Regional Transportation Plan 2017 (RTP) identifies policies on greenhouse gas (GHG) emissions and accompanying reduction targets. Rural areas

such as Lake County are not subject to the same transportation planning requirements as areas with substandard air quality (“non-attainment areas”) or those with larger, urban populations. However, because the transportation sector accounts for nearly 50 percent of GHG emissions in California, long-range transportation planning plays an important role at all levels in helping the State to reach its overall reduction goals. Reducing the number of vehicle trips and vehicle miles traveled is key to reducing GHG emissions, whether it is from a regional perspective or a global perspective. Ongoing efforts within the Lake County region to provide a variety of transportation choices will continue to assist larger societal goals in this area.

**DISCUSSION OF ENVIRONMENTAL EVALUATION QUESTION 2.10—  
GREENHOUSE GAS EMISSIONS**

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<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, and HFCs. CO<sub>2</sub> emissions are a product of the combustion of petroleum-based products, like gasoline, in internal combustion engines. Relatively small amounts of CH<sub>4</sub> and N<sub>2</sub>O 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 GHGs must necessarily be found to contribute to a significant cumulative impact on the environment.

### **Operational Emissions**

The purpose of the proposed project is to improve safety for motorists and reduce the frequency and severity of collisions on State Route 20 within the project limits. The project would not increase the capacity of the roadway. This type of project generally causes minimal or no increase in operational GHG emissions. Because the project would not increase the number of travel lanes on State Route 20, no increase in vehicle miles traveled (VMT) would occur as result of project implementation. While some trees and vegetation would be removed to accommodate the realignment, the project area is densely forested and the loss of vegetation would not be likely to substantially impair capacity for carbon sequestration. While some GHG emissions during the construction period would be unavoidable, no increase in operational GHG emissions is expected.

### **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 Caltrans Construction Emissions Tool version was used to estimate carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O) emissions from construction activities. Construction is expected to begin in 2022 and last approximately 250 working days. Table 5 summarizes estimated GHG emissions generated by on-site equipment for the project.

**Table 5: Total GHG Emissions during Construction (US tons)**

<b>Construction Year</b>	<b>CO<sub>2</sub></b>	<b>CH<sub>4</sub></b>	<b>N<sub>2</sub>O</b>
2022 (250 working days)	620	<1	<1

CO<sub>2</sub> = carbon dioxide

CH<sub>4</sub> = methane

N<sub>2</sub>O = nitrous oxide

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.

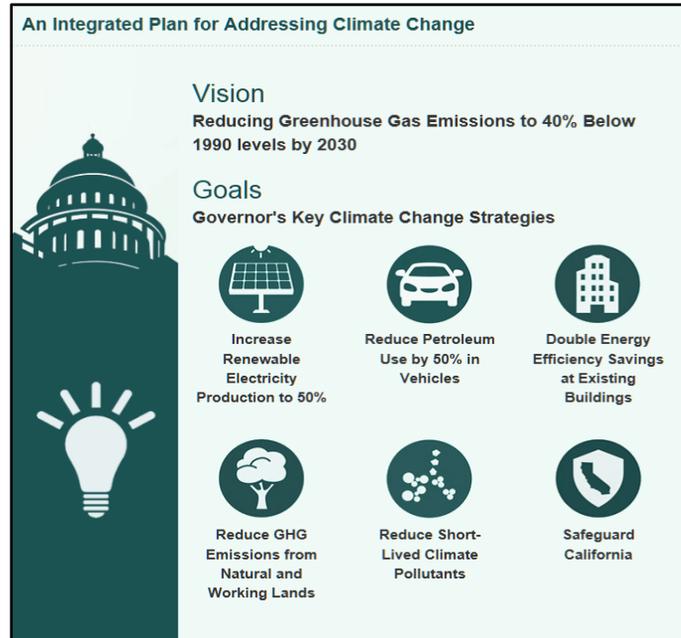
## **GREENHOUSE GAS REDUCTION STRATEGIES**

### ***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 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<sub>2</sub> 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 would 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.
- 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.
- Disturbed areas would be replanted with climate-appropriate native vegetation to reduce the need for irrigation, enhance infiltration, and minimize stormwater runoff.

## 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 (USGCRP) 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).

The 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 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 proposed project starts bordering the south-eastern bank of Blue Lakes and finishes on just the north of Lower Blue Lake, passing a residential community. The

average annual precipitation in nearby Upper Lake is 34.09 inches, with approximately 2 inches of snowfall. The majority of precipitation occurs November through March. The roadway is a winding two-lane highway in this range. The project's Floodplain Evaluation Report Summary reported that the project falls in a FEMA Zone X floodplain, defined as areas outside the 0.2% (1-in-500 year) annual chance floodplain, an area of minimal flood hazard.

Climate change is expected to bring fewer but potentially heavier individual precipitation events in the project region. The Caltrans District 1 Climate Change Pilot Study (2014) estimated the potential increase in average daily precipitation in the project region could be 10% or more by 2099 under a wet global climate model, compared to the 1970–1999 historic period (Caltrans and Humboldt County Association of Governments 2014). However, different models produce different results, ranging from increasing to decreasing rainfall. The report explains that “Rainfall and runoff changes varied depending upon models. Models predicting increased rainfall were used as a conservative measure to assess asset exposure.” Adding to the uncertainty, many other factors (such as local geology, topography, geology, and slopes) influence the potential effects of higher rainfall on a location and how it interacts with roadway infrastructure.

The project does not involve any water crossings and would not place components in a floodplain or waterway; no adverse floodplain impacts are anticipated. The proposed curve realignment would move the realigned portion of the roadway another approximately 50 feet north (away) from Blue Lakes. Culverts will be extended and, in some cases, enlarged. Erosion control measures and revegetation with native plants would help stabilize slopes to enhance infiltration and minimize runoff during heavy rainfall. Given the location and scope of the project, it is anticipated to be resilient to potential future changes in rainfall under climate change.

### ***WILDFIRE***

The proposed project lies on SR 20 in Lake County, a State Responsibility Area designated by CAL FIRE as a very high fire hazard severity zone. The proposed project would not construct any new features or induce uses that would be vulnerable to wildfire or increase risk of wildfire.

Design features that would help prevent spread of wildfire and protect the asset from harm include widened roadway footprint, steel guardrail posts, non-plastic culverts and concrete weed mats for guardrail. The project would not result in changes to the highway facilities or environment that could exacerbate wildfire risk. To address fire risk during construction, the contractor would comply with Caltrans Standard Specification 7-1.02M(2) (revised October 18, 2019) fire prevention procedures.

## 2.11 Hazards and Hazardous Materials

Question	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<p><b>Would the project:</b> a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?</p>	No	No	Yes	No
<p><b>Would the project:</b> 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?</p>	No	No	Yes	No
<p><b>Would the project:</b> c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?</p>	No	No	No	Yes
<p><b>Would the project:</b> 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?</p>	No	No	No	Yes
<p><b>Would the project:</b> 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?</p>	No	No	No	Yes
<p><b>Would the project:</b> f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?</p>	No	No	No	Yes
<p><b>Would the project:</b> g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?</p>	No	No	No	Yes

A “No Impact” and “Less Than Significant” determination for this section is based on information provided in the Initial Site Assessment dated August 28, 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 project corridor is a mix of rural, commercial and private residential space, set within a semi-rural environment. The proposed project is not located within or impacting any sites on the Cortese List.

### **DISCUSSION OF ENVIRONMENTAL EVALUATION QUESTION 2.11—HAZARDS AND HAZARDOUS MATERIALS**

- a - b) This project would not create a significant hazard to the public. Aerially deposited lead, thermoplastic paint, and treated wood waste are present within the project location. 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. 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”.

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. Therefore, this impact would be less than significant.

- 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. Therefore, there is no impact.
- 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. Therefore, there is no impact.
- e) 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. Therefore, there is no impact.
- f) This project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, there is no impact.
- g) This project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

## **AVOIDANCE AND MINIMIZATION EFFORTS**

Based on the determinations made in the CEQA Checklist, avoidance and minimization measures have not been proposed for 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.

## 2.12 Hydrology and Water Quality

<b>Question</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<p><b>Would the project:</b></p> <p>a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?</p>	No	No	No	Yes
<p><b>Would the project:</b></p> <p>b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?</p>	No	No	No	Yes
<p><b>Would the project:</b></p> <p>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:</p> <p>(i) result in substantial erosion or siltation on- or off-site;</p>	No	No	Yes	No
<p>(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;</p>	No	No	No	Yes
<p>(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</p>	No	No	No	Yes
<p>(iv) impede or redirect flood flows?</p>	No	No	No	Yes
<p><b>Would the project:</b></p> <p>d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?</p>	No	No	No	Yes
<p><b>Would the project:</b></p> <p>e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?</p>	No	No	No	Yes

“No Impact” determinations in this section are based on information provided in the Water Quality Assessment Memorandum prepared October 2019, Floodplain Evaluation Report Summary prepared July 23, 2018 and the Floodplain Hydraulics Study prepared April 8, 2020. During construction, site BMPs would be implemented for construction activities to avoid and reduce potential water quality to project limits and storm water runoff resulting from construction.

## 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<sup>2</sup> 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.”

---

<sup>2</sup> 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<sup>3</sup> 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 the Porter-Cologne Act are permitted by WDRs and may be required even when the discharge is already permitted or exempt under the CWA.

---

<sup>3</sup> The EPA defines *effluent* as "wastewater, treated or untreated, that flows out of a treatment plant, sewer, or industrial outfall."

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 within the Cache Creek Hydrologic Unit, Upper Cache Creek Hydrologic Area, and Upper Lake Hydrologic Subarea (#513.54) with an area of 82,956 acres. Blue Lakes is the nearest receiving water and is a tributary to Scotts Creek. Scotts Creek flows southeast and eventually drains to Clear Lake, approximately 8 miles from the Project (Caltrans, 2012).

The average annual precipitation in nearby Upper Lake is 34.09 inches, with approximately 2 inches of snowfall. The majority of precipitation occurs November through March. The average annual maximum temperature is 72.8 degrees and the average annual minimum temperature is 41.0 degrees Fahrenheit.

## **DISCUSSION OF ENVIRONMENTAL EVALUATION QUESTION 2.12—HYDROLOGY AND WATER QUALITY**

- a) 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 Construction General Permit (CGP) (Order 2010-0014-DWQ and 2012-0006-DWQ). The CGP requires that the construction contractor prepare a project specific Storm Water Pollution Prevention Plan, which identifies temporary construction site best management practices (BMPs) to reduce construction impacts on receiving water quality based on potential pollutants and pollutant sources. The temporary control BMPs necessary to address stormwater impacts and protect water quality include the following: soil stabilization, sediment control, tracking control, non-stormwater management, job site management, and waste management and materials pollution control. Therefore, there would be no impact.

- b) No permanent or temporary impacts are anticipated. Temporary construction BMPs would be implemented that would minimize or completely avoid any potential impacts. Any temporary impacts would be insignificant in comparison to the overall groundwater area and the highly variable nature of the existing groundwater flow paths. Additionally, construction would take place during the summer and fall months when there is not likely to be any water flowing through culverts. No potential impacts would be severe enough to reduce the groundwater table. Therefore, there would be no impact.
- c)
- i. The proposed project involves placing fill, permanent grading of slopes, and increasing the impervious surface area which could affect natural erosion and sedimentation patterns on- or off-site. Impacts are expected to be avoided or reduced to negligible levels with the implementation of standard erosion control practices. Therefore, this impact would be less than significant.
  - ii. The proposed project would increase the amount of impervious surface area, which would increase the amount of runoff water. No permanent impacts are anticipated. Construction would take place during the summer and fall months when there is not likely to be any water flowing through culverts. No potential impacts would be severe enough to substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site. Therefore, there would be no impact.
  - iii. The proposed project would increase the amount of impervious surface area, which would increase the amount of runoff water. However, 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. Treatment controls would be located and sized in accordance with Caltrans design guidance and the Caltrans Municipal Separate Storm Sewer System Permit. Treatment types that infiltrate, harvest, reuse, and allow the evapotranspiration of stormwater runoff would be prioritized. Therefore, there would be no impact.
  - iv. The proposed project would increase the amount of impervious surface area, which would increase the amount of runoff water. The project would not place housing within the flood area and would not place structures in areas that would impede or redirect flood flows. Therefore, this impact would be no impact.
- d) Due to the nature of the proposed project, it would not cause inundation by seiche, tsunami, or mudflow. The project is located in Zones X within Federal

Emergency Management Agency Flood Insurance Rate Map Panel 06033C0317D. Zone X is the designation for areas determined to be outside of the 500-year floodplain. The proposed construction activities are not expected to have any significant adverse floodplain impacts. Therefore, there would be no impact.

- e) The proposed project is not expected to result in long-term impacts to water quality. Potential temporary impacts due to construction would be minimized with regulatory and Caltrans requirements, and will not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Therefore, there would be no impact.

The proposed project is not expected to result in long-term impacts to water quality. Potential temporary impacts due to construction would be minimized with regulatory and Caltrans requirements, and will not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

### **AVOIDANCE AND MINIMIZATION EFFORTS**

Based on the determinations made in the CEQA Checklist, avoidance and minimization measures have not been proposed for 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.

## 2.13 Land Use and Planning

Question	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<p><b>Would the project:</b> a) Physically divide an established community?</p>	No	No	No	Yes
<p><b>Would the project:</b> 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?</p>	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 project is located within a rural setting with very few scattered residences adjacent to the project site. Due to the rural nature of the area and the scope of the project, the project would not physically divide an established community. Therefore, there would be no impact.
- b) The project would not conflict with any applicable land use plan, policy, or regulation. Therefore, there would be no impact.

### NO BUILD ALTERNATIVE

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

**2.14 Mineral Resources**

<b>Question:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>Would the project:</b> 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
<b>Would the project:</b> 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. Therefore, there would be no impact.

**NO BUILD ALTERNATIVE**

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

## 2.15 Noise

<b>Question</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>Would the project result in:</b> 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	Yes	No
<b>Would the project result in:</b> b) Generation of excessive groundborne vibration or groundborne noise levels?	No	No	No	Yes
<b>Would the project result in:</b> 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” and “Less Than Significant 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) Construction equipment is expected to generate temporary noise levels of a maximum of 85 dBA at a distance of 50 ft, and noise produced by construction equipment would be reduced over distance at a rate of about 6 dB per doubling of distance. Construction noise would primarily result from the operation of heavy construction equipment and arrival and departure of heavy-duty trucks.

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. Therefore, there would be no impact.
- 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. Therefore, there would be no impact.

### **NO BUILD ALTERNATIVE**

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

## 2.16 Population and Housing

<b>Question</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>Would the project:</b> 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
<b>Would the project:</b> 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. Therefore, 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. Therefore, there would be no impact.

### **NO BUILD ALTERNATIVE**

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

**2.17 Public Services**

<b>Question</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<p>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:</p> <p>Fire protection?</p>	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. Therefore, there would be no impact.

**NO BUILD ALTERNATIVE**

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

## 2.18 Recreation

<b>Question</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
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. Therefore, there would be no impact.
- 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. Therefore, there would be no impact.

### **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
<p><b>Would the project:</b> a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?</p>	No	No	No	Yes
<p><b>Would the project:</b> b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?</p> <p>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.</p>	No	No	No	Yes
<p><b>Would the project:</b> c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?</p>	No	No	No	Yes
<p><b>Would the project:</b> d) Result in inadequate emergency access?</p>	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 March 4, 2020. 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). Therefore, 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 project proposes to improve the existing curve at PM 2.2 to a radius ranging from 400 feet to 641 feet. In addition, the sight bench created at the East curve will improve sight distance. Therefore, the project would have no impact. Therefore, there would be no impact.
- d) The proposed project is not anticipated to result in inadequate emergency access, however temporary road closures are expected to occur. Public traffic may be stopped in both directions for periods not to exceed 20 minutes. Any emergency service agency whose ability to respond to incidents would be affected by any lane closure during construction would be notified prior to that closure. Therefore, there would be no impact.

### **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
<p><b>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:</b></p> <p>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</p>	No	No	No	Yes
<p>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.</p>	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 of cultural studies prepared in April 16, 2020. 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 Habematolel Pomo of Upper Lake, Koi Nation of Northern Pomo, Pinoleville Pomo Nation, Sherwood Valley Rancheria, Manchester Point Arena Band of Pomo Indians, and Scotts Valley Rancheria. The tribes that responded did not express any concerns with the project. The project archaeologist and project consultants met with the Habematolel Pomo of Upper Lake at the project site on August 6, 2019 and discussed possible cultural resources in the project limits. The Habematolel

Pomo of Upper Lake requested to be included in project meetings and to have a monitor present during all ground disturbing work. The Scotts Valley Rancheria also requested to have a monitor present during all ground disturbing. Through consultation, no tribal cultural resources were identified within the project study limits. Therefore, there would be no impact.

## **NO BUILD ALTERNATIVE**

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

## 2.21 Utilities and Service Systems

<b>Question</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>Would the project:</b> 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	Yes	No
<b>Would the project:</b> 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
<b>Would the project:</b> 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
<b>Would the project:</b> 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
<b>Would the project:</b> e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	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:

### ENVIRONMENTAL SETTING

Utilities expected to be encountered are described in Section 1 of this document.

### ***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. Therefore, this impact would be less than significant.
- b) The project would have sufficient water supplies during construction and would not have an effect on water supplies for future developments. Therefore, there would be no impact.
- c) The project would not have a demand for wastewater treatment. Therefore, 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. Therefore, there would be no impact.

## **AVOIDANCE AND MINIMIZATION EFFORTS**

Based on the determinations made in the CEQA Checklist, avoidance and minimization measures have not been proposed for 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.

## 2.22 Wildfire

Question	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<p><b>If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:</b></p> <p>a) Substantially impair an adopted emergency response plan or emergency evacuation plan?</p>	No	No	No	Yes
<p><b>If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:</b></p> <p>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?</p>	No	No	No	Yes
<p><b>If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:</b></p> <p>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?</p>	No	No	No	Yes
<p><b>If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:</b></p> <p>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?</p>	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 located in state responsibility area of very high fire hazard severity. The Lake County Emergency Operations Plan was approved by the County of Lake Board of Supervisors in May 2018. 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 20, which would improve the intersection's use as a firebreak if needed. There would be no impact.
- c) The proposed project work consists of curve improvement and would not exacerbate wild fire risk. In addition, the project would not require the installation or maintenance of additional infrastructure that would result in temporary or ongoing impacts to the environment. There would be no impact.
- d) The proposed project will not increase risks of downslope or downstream flooding or landslide as a result of fire slope instability or drainages changes. Design features that will help prevent spread of wildfire and protect the asset from harm include steel guardrail posts, non-plastic culverts and concrete weed mats for guardrail. The project would not result in changes to the highway facilities or environment that could exacerbate wildfire risk. To address fire risk during construction, the contractor will comply with Caltrans Standard Specification 7-1.02M(2) (revised October 18, 2019) fire prevention procedures. There would be no impact.

## **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. Therefore, this impact would be less than significant.
- 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 moderate-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. 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 permanent 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 through emails, phone, and letting was conducted with representatives of the Habematolel Pomo of Upper Lake, Koi Nation of Northern Pomo, Pinoleville Pomo Nation, Sherwood Valley Rancheria, Manchester Point Arena Band of Pomo Indians, and Scotts Valley Rancheria.

A tribal site visit was arranged for August 6, 2019. Linda Rosas-Bill of the Habematolel Pomo of Upper Lake attended.

- A field meeting inviting CDFW was scheduled for August 26, 2019 to discuss impacts to sensitive resources in the project limits. Suzanne Gilmore was to attend but was unable to due to issues with locating the project site. Information from the field visit was relayed to her

---

## 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
Fermina Chavez	Associate Environmental Planner (Project Coordinator) Contribution: Project Coordinator and Document Preparer
Tariq Chechi	Transportation Engineer Contribution: Project Design, Floodplain Hydraulics Study.
Jaqueline Farrington	Environmental Planner (Archaeology) Contribution: Cultural Studies
Cathy McKeon	Project Manager Contribution: Project Management
Mark Melani	Engineering Geologist (Hazardous Waste) Contribution: Initial Site Assessment
Kristine Pepper	Transportation Engineer Contribution: Floodplain Evaluation Summary Report
William Ragan	Environmental Planner (Natural Sciences) Contribution: Natural Environment Study
Sheri Rodriguez	TMP Coordinator Contribution: Transportation Management Plan
Kenneth Russo	Environmental Branch Chief Contribution: Senior Environmental Planner
Michael Sterle	Landscape Architect Contribution: Visual Impact Assessment
Wesley Stroud	Environmental Office Chief Contribution: Supervising Environmental Planner

Saeid Zandian

T.E, Traffic Noise and Air Quality Analyst

Contribution: Air Quality and Noise Analysis & Operational  
Green House Gas (GHG) and Construction GHG Analysis

---

## 5 Chapter 5. References

---

- California Department of Conservation. *Earthquake Zones of Required Investigation*. <https://maps.conservation.ca.gov/cgs/EQZApp/app/>. Accessed January 2020.
- California Department of Conservation. *Geologic Map of California (2010)*. <https://maps.conservation.ca.gov/cgs/gmc/>. Accessed January 2020.
- California Department of Transportation. 2015. *Standard Specifications*. <http://www.dot.ca.gov/des/oe/construction-contract-standards.html>. Accessed January 2020
- California Department of Forestry and Fire Protection. *Fire Hazard Severity Zone Maps*. <http://osfm.fire.ca.gov/divisions/wildfire-prevention-planning-engineering/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/>. Accessed January 2020.
- California Air Resources Board (ARB). 2019a. *California Greenhouse Gas Emissions Inventory–2019 Edition*. <https://ww3.arb.ca.gov/cc/inventory/data/data.htm>. Accessed: August 21, 2019.
- California Air Resources Board (ARB). 2019b. *California Greenhouse Gas Emissions for 2000 to 2017. Trends of Emissions and Other Indicators*. [https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000\\_2017/ghg\\_inventory\\_trends\\_00-17.pdf](https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2017/ghg_inventory_trends_00-17.pdf). Accessed: August 21, 2019.
- California Air Resources Board (ARB). 2019c. *SB 375 Regional Plan Climate Targets*. <https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets>. Accessed: August 21, 2019.
- City of Fortuna. 2010. *General Plan Policy Document (Envision 2030)*. Adopted October 2010. <http://friendlyfortuna.com/DocumentCenter/Home/View/538>
- Federal Highway Administration (FHWA). 2019. *Sustainability*. <https://www.fhwa.dot.gov/environment/sustainability/resilience/>. Last updated February 7, 2019. Accessed: August 21, 2019.
- Federal Highway Administration (FHWA). No date. *Sustainable Highways Initiative*. <https://www.sustainablehighways.dot.gov/overview.aspx>. Accessed: August 21, 2019.
- Humboldt County. 2017. *Humboldt 21<sup>st</sup> Century General Plan*. Adopted October 23, 2017. <https://humboldt.gov/205/General-Plan>. Accessed February 6, 2020.
- Humboldt County. No date. *Climate Action Plan*. <https://humboldt.gov/2464/Climate-Action-Plan>. Accessed February 6, 2020.

Humboldt County Department of Community Development Services. 2012. *County of Humboldt General Plan Update Climate Action Plan*. January 2012 Draft. Eureka, CA.

State of California. 2018. *California's Fourth Climate Change Assessment*. <http://www.climateassessment.ca.gov/>. Accessed: August 21, 2019.

State of California. 2019. *California Climate Strategy*. <https://www.climatechange.ca.gov/>. Accessed: August 21, 2019.

U.S. Department of Transportation (U.S. DOT). 2011. *Policy Statement on Climate Change Adaptation*. June. [https://www.fhwa.dot.gov/environment/sustainability/resilience/policy\\_and\\_guidance/usdot.cfm](https://www.fhwa.dot.gov/environment/sustainability/resilience/policy_and_guidance/usdot.cfm). Accessed: August 21, 2019.

U.S. Environmental Protection Agency (U.S. EPA). 2018. *Inventory of U.S. Greenhouse Gas Emissions and Sinks*. <https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks>. Accessed: August 21, 2019.

U.S. Global Change Research Program (USGCRP). 2018. *Fourth National Climate Assessment*. <https://nca2018.globalchange.gov/>. Accessed: August 21, 2019.

---

# 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.

November 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, or obtain more information regarding Title VI, please contact the Title VI Branch Manager at (916) 324-8379 or visit the following web page:  
<https://dot.ca.gov/programs/business-and-economic-opportunity/title-vi>.

To obtain this information in an alternate format such as Braille or in a language other than English, please contact the California Department of Transportation, Office of Business and Economic Opportunity, at 1823 14<sup>th</sup> Street, MS-79, Sacramento, CA 95811; (916) 324-8379 (TTY 711); or at [Title.VI@dot.ca.gov](mailto:Title.VI@dot.ca.gov).

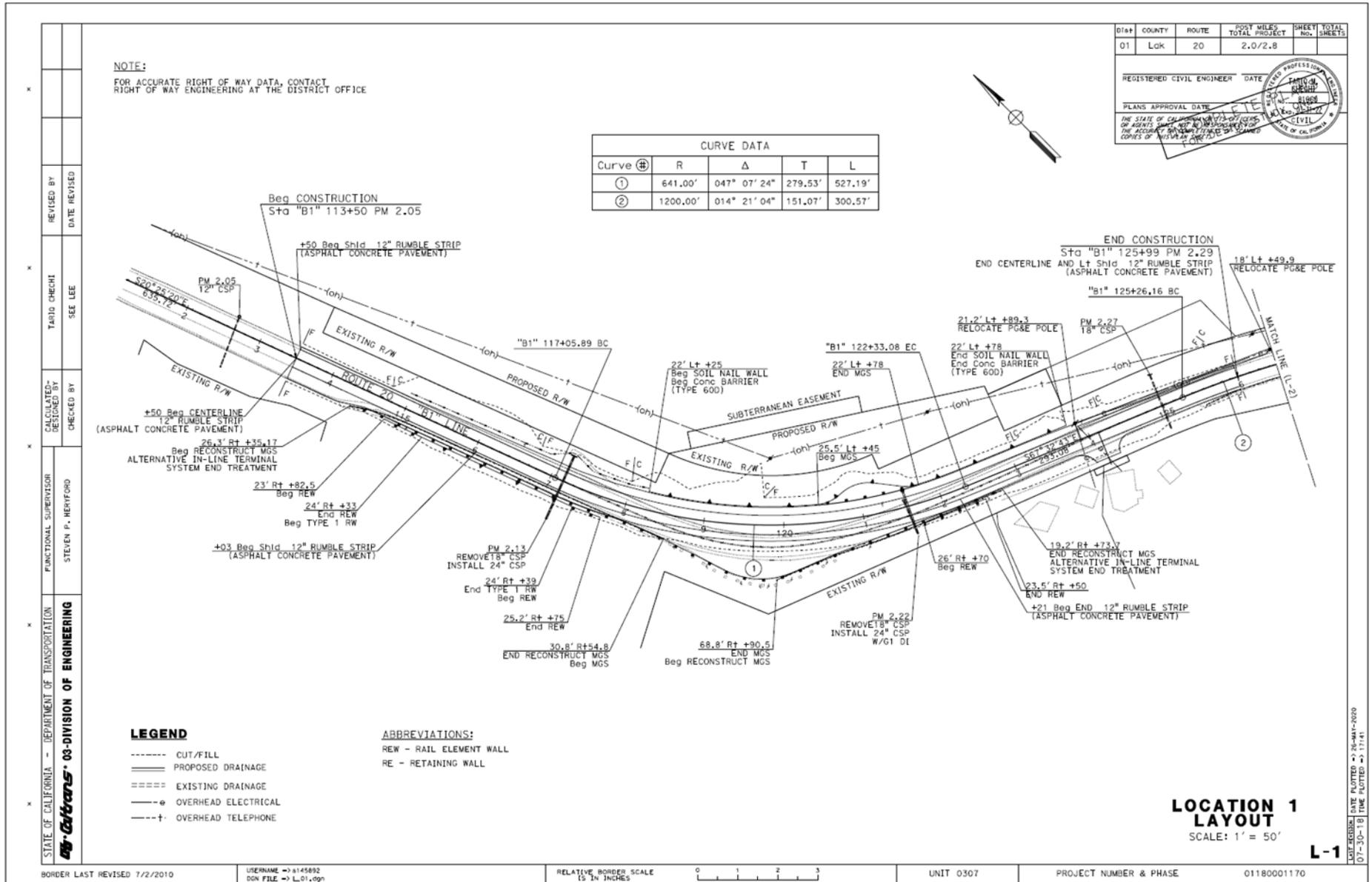
A handwritten signature in blue ink, appearing to read "Toks Omishakin".

Toks Omishakin  
Director

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

## **Appendix B. Layouts of Proposed Work**

---



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	LOK	20	2.0/2.8		

REGISTERED CIVIL ENGINEER DATE [Signature] [Date]

PLANS APPROVAL DATE [Signature] [Date]

THE STATE OF CALIFORNIA OFFICE OF REGISTERED PROFESSIONALS  
 REGISTERED CIVIL ENGINEER  
 STATE OF CALIFORNIA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** - 03-DIVISION OF ENGINEERING

FUNCTIONAL SUPERVISOR: STEVEN P. HENFORD

DESIGNED BY: TARDY CHECHI  
 CHECKED BY: SEE LEE

REVISOR: [Blank]  
 DATE REVISOR: [Blank]

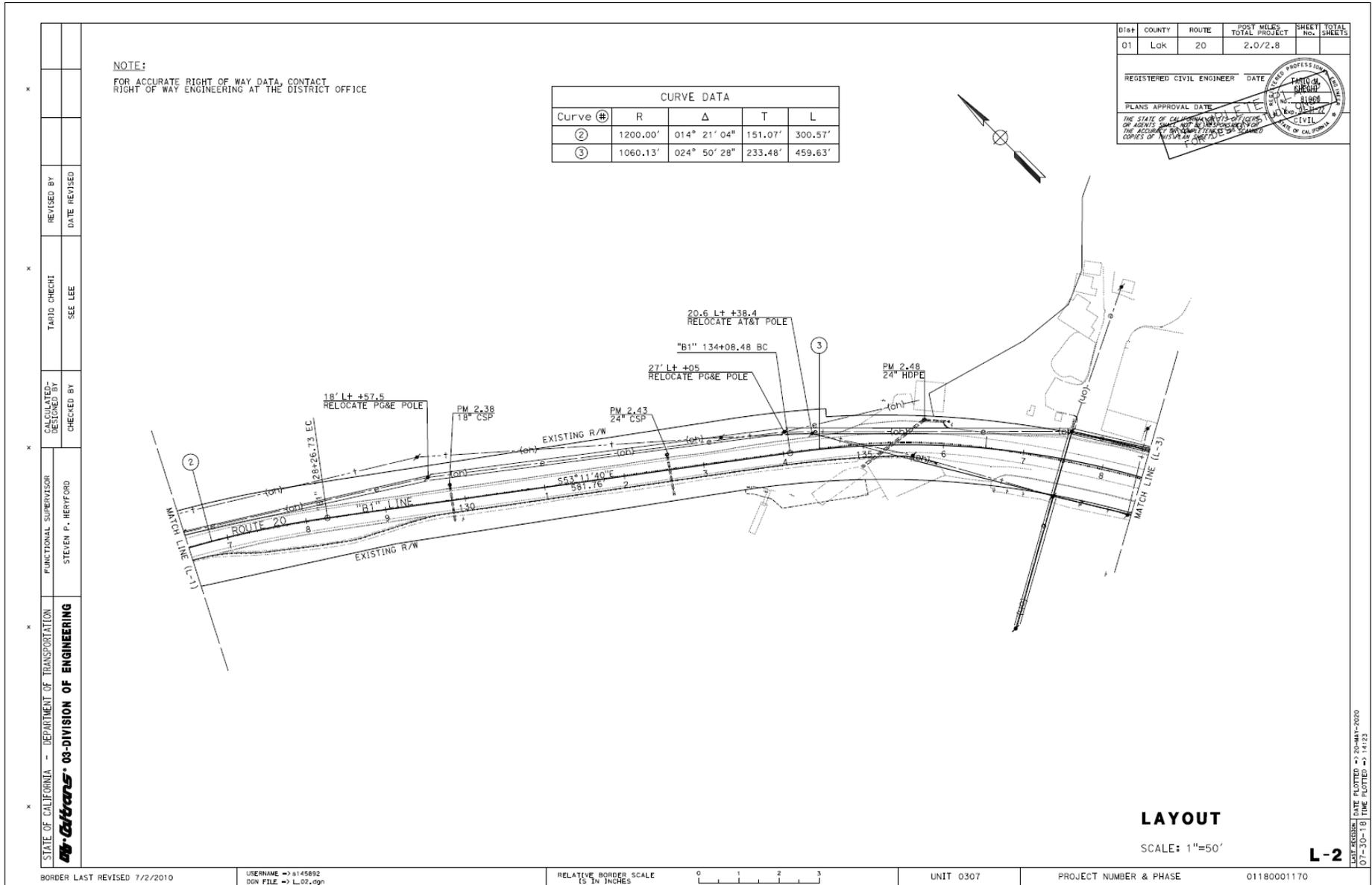






Figure 2: MEN-20 PM 41.6/41.7 Project Disposal Site Map



# **Appendix C. USFWS, NMFS, CNDDB, CNPS Species Lists**

---

01/21/2020

Event Code: 08ESMF00-2020-E-02613

1

## Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Sacramento Fish And Wildlife Office**  
Federal Building  
2800 Cottage Way, Room W-2605  
Sacramento, CA 95825-1846  
(916) 414-6600

01/21/2020

Event Code: 08ESMF00-2020-E-02613

:

## Project Summary

Consultation Code: 08ESMF00-2019-SLI-3046

Event Code: 08ESMF00-2020-E-02613

Project Name: Blue Lakes Safety (EA: 01-0H840)

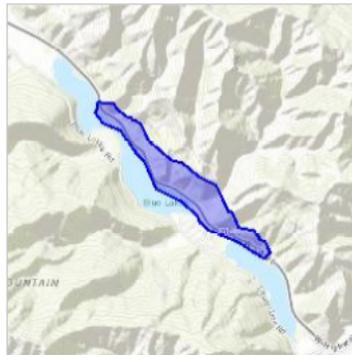
Project Type: TRANSPORTATION

Project Description:

- Install temporary traffic control.
- Relocate six overhead utility poles.
- Improve curve at West Curve.
- Excavate a sight bench at East Curve.
- Widen shoulders 8 to 10 feet to curve locations.
- Construct one standard plan retaining wall and rail element wall.
- Replace, repair, and/or extend four existing culverts.
- Reconstruct the roadway at West Curve.
- Install guardrail with terminal systems.
- Place enhanced-visibility pavement delineation, centerline and shoulder rumble strips, and erosion control.

### Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/39.17218704546248N123.00909861186715W>



Counties: Lake, CA

01/21/2020

Event Code: 08ESMF00-2020-E-02613

3

## Endangered Species Act Species

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>4</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

### Birds

NAME	STATUS
Northern Spotted Owl <i>Strix occidentalis caurina</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/1123">https://ecos.fws.gov/ecp/species/1123</a>	Threatened

### Reptiles

NAME	STATUS
Green Sea Turtle <i>Chelonia mydas</i> Population: East Pacific DPS No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/6199">https://ecos.fws.gov/ecp/species/6199</a>	Threatened

### Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/2891">https://ecos.fws.gov/ecp/species/2891</a> Species survey guidelines: <a href="https://ecos.fws.gov/ipac/guideline/survey/population/205/office/11420.pdf">https://ecos.fws.gov/ipac/guideline/survey/population/205/office/11420.pdf</a>	Threatened

01/21/2020

Event Code: 08ESMF00-2020-E-02613

4

## Fishes

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/321">https://ecos.fws.gov/ecp/species/321</a>	Threatened

## Flowering Plants

NAME	STATUS
Burke's Goldfields <i>Lasthenia burkei</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/4338">https://ecos.fws.gov/ecp/species/4338</a>	Endangered

## Critical habitats

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

**From:** [Ragan, William@DOT](mailto:Ragan_William@DOT)  
**To:** [nmfs\\_wcrca\\_specieslist@noaa.gov](mailto:nmfs_wcrca_specieslist@noaa.gov)  
**Subject:** Blue Lakes Safety (EA: 01-0H840) Species List  
**Date:** Tuesday, January 21, 2020 4:15:00 PM

---

Quad Name **Cow Mountain**

Quad Number **39123-B1**

**ESA Anadromous Fish**

SONCC Coho ESU (T) -

CCC Coho ESU (E) - **X**

CC Chinook Salmon ESU (T) - **X**

CVSR Chinook Salmon ESU (T) -

SRWR Chinook Salmon ESU (E) -

NC Steelhead DPS (T) -

CCC Steelhead DPS (T) - **X**

SCCC Steelhead DPS (T) -

SC Steelhead DPS (E) -

CCV Steelhead DPS (T) -

Eulachon (T) -

sDPS Green Sturgeon (T) -

**ESA Anadromous Fish Critical Habitat**

SONCC Coho Critical Habitat -

CCC Coho Critical Habitat - **X**

CC Chinook Salmon Critical Habitat -

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat -

CCC Steelhead Critical Habitat -

SCCC Steelhead Critical Habitat -

SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat -

Eulachon Critical Habitat -

sDPS Green Sturgeon Critical Habitat -

**ESA Marine Invertebrates**

Range Black Abalone (E) -

Range White Abalone (E) -

**ESA Marine Invertebrates Critical Habitat**

Black Abalone Critical Habitat -

**ESA Sea Turtles**

East Pacific Green Sea Turtle (T) -

Olive Ridley Sea Turtle (T/E) -  
Leatherback Sea Turtle (E) -  
North Pacific Loggerhead Sea Turtle (E) -

**ESA Whales**

Blue Whale (E) -  
Fin Whale (E) -  
Humpback Whale (E) -  
Southern Resident Killer Whale (E) -  
North Pacific Right Whale (E) -  
Sei Whale (E) -  
Sperm Whale (E) -

**ESA Pinnipeds**

Guadalupe Fur Seal (T) -  
Steller Sea Lion Critical Habitat -

**Essential Fish Habitat**

Coho EFH - X  
Chinook Salmon EFH - X  
Groundfish EFH -  
Coastal Pelagics EFH -  
Highly Migratory Species EFH -

**MMPA Species (See list at left)**

**ESA and MMPA Cetaceans/Pinnipeds**

**See list at left and consult the NMFS Long Beach office  
562-980-4000**

MMPA Cetaceans -  
MMPA Pinnipeds -

Quad Name **Upper Lake**

Quad Number **39122-B8**

**ESA Anadromous Fish**

SONCC Coho ESU (T) -  
CCC Coho ESU (E) -  
CC Chinook Salmon ESU (T) -  
CVSR Chinook Salmon ESU (T) -  
SRWR Chinook Salmon ESU (E) -  
NC Steelhead DPS (T) -  
CCC Steelhead DPS (T) -  
SCCC Steelhead DPS (T) -  
SC Steelhead DPS (E) -

CCV Steelhead DPS (T) -

Eulachon (T) -

sDPS Green Sturgeon (T) -

**ESA Anadromous Fish Critical Habitat**

SONCC Coho Critical Habitat -

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat -

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat -

CCC Steelhead Critical Habitat -

SCCC Steelhead Critical Habitat -

SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat -

Eulachon Critical Habitat -

sDPS Green Sturgeon Critical Habitat -

**ESA Marine Invertebrates**

Range Black Abalone (E) -

Range White Abalone (E) -

**ESA Marine Invertebrates Critical Habitat**

Black Abalone Critical Habitat -

**ESA Sea Turtles**

East Pacific Green Sea Turtle (T) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

**ESA Whales**

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

**ESA Pinnipeds**

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

**Essential Fish Habitat**

Coho EFH -

Chinook Salmon EFH -

Groundfish EFH -

Coastal Pelagics EFH -

Highly Migratory Species EFH -

**MMPA Species (See list at left)**

**ESA and MMPA Cetaceans/Pinnipeds**

**See list at left and consult the NMFS Long Beach office**

**562-980-4000**

MMPA Cetaceans -

MMPA Pinnipeds -

Will Ragan

Environmental Planner/NS

Caltrans North Region

703 B Street

Marysville, CA 95901

Office Phone: (530) 741-4282

**From:** [NMFSWCRCA Specieslist - NOAA Service Account](#)  
**To:** [Ragan, William@DOT](mailto:Ragan.William@DOT)  
**Subject:** Re: Blue Lakes Safety (EA: 01-0H840) Species List  
**Date:** Tuesday, January 21, 2020 4:15:29 PM

---

**CAUTION: External email.** Do not click links or open attachments unless you recognize the sender and know the content is safe.

---

Receipt of this message confirms that NMFS has received your email to [nmfswcrca.specieslist@noaa.gov](mailto:nmfswcrca.specieslist@noaa.gov). If you are a federal agency (or representative) and have followed the steps outlined on the California Species List Tools web page ([http://www.westcoast.fisheries.noaa.gov/maps\\_data/california\\_species\\_list\\_tools.html](http://www.westcoast.fisheries.noaa.gov/maps_data/california_species_list_tools.html)), you have generated an official Endangered Species Act species list.

Messages sent to this email address are not responded to directly. For project specific questions, please contact your local NMFS office.

Northern California/Klamath (Arcata) 707-822-7201

North-Central Coast (Santa Rosa) 707-387-0737

Southern California (Long Beach) 562-980-4000

California Central Valley (Sacramento) 916-930-3600



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



Query Criteria: Quad<span style='color: Red;'> IS </span>(Cow Mountain (3912321)<span style='color: Red;'> OR </span><span style='color: Red;'> Upper Lake (3912228))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020	None	Threatened	G2G3	S1S2	SSC
<i>Andrena blennospermatis</i> Blennosperma vernal pool andrenid bee	IIHYM35030	None	None	G2	S2	
<i>Antrozous pallidus</i> pallid bat	AMACC10010	None	None	G5	S3	SSC
<i>Arctostaphylos stanfordiana</i> ssp. <i>raichei</i> Raiche's manzanita	PDERI041G2	None	None	G3T2	S2	1B.1
<i>Ardea herodias</i> great blue heron	ABNGA04010	None	None	G5	S4	
<i>Bombus occidentalis</i> western bumble bee	IIHYM24250	None	Candidate Endangered	G2G3	S1	
<i>Brasenia schreberi</i> watershield	PDCAB01010	None	None	G5	S3	2B.3
<i>Calycadenia micrantha</i> small-flowered calycadenia	PDAST1P0C0	None	None	G2	S2	1B.2
<i>Carex comosa</i> bristly sedge	PMCYP032Y0	None	None	G5	S2	2B.1
<i>Coastal and Valley Freshwater Marsh</i> Coastal and Valley Freshwater Marsh	CTT52410CA	None	None	G3	S2.1	
<i>Emys marmorata</i> western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
<i>Grimmia torenii</i> Toren's grimmia	NBMUS32330	None	None	G2	S2	1B.3
<i>Hesperolinon adenophyllum</i> glandular western flax	PDLIN01010	None	None	G2G3	S2S3	1B.2
<i>Lavinia exilicauda chi</i> Clear Lake hitch	AFCJB19011	None	Threatened	G4T1	S1	
<i>Phalacrocorax auritus</i> double-crested cormorant	ABNFD01020	None	None	G5	S4	WL
<i>Rana boylei</i> foothill yellow-legged frog	AAABH01050	None	Candidate Threatened	G3	S3	SSC
<i>Streptanthus glandulosus</i> ssp. <i>hoffmanii</i> Hoffman's bristly jewelflower	PDBRA2G0J4	None	None	G4T2	S2	1B.3
<i>Taricha rivularis</i> red-bellied newt	AAAAF02020	None	None	G4	S2	SSC
<i>Taxidea taxus</i> American badger	AMAJF04010	None	None	G5	S3	SSC

Record Count: 19



\*The database used to provide updates to the Online Inventory is under construction. [View updates and changes made since May 2019 here.](#)

## Plant List

9 matches found. [Click on scientific name for details](#)

### Search Criteria

Found in Quads 3912321 and 3912228;

[Modify Search Criteria](#) [Export to Excel](#) [Modify Columns](#) [Modify Sort](#) [Display Photos](#)

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
<a href="#">Amsinckia lunaris</a>	bent-flowered fiddleneck	Boraginaceae	annual herb	Mar-Jun	1B.2	S3	G3
<a href="#">Arctostaphylos stanfordiana ssp. raichei</a>	Raiche's manzanita	Ericaceae	perennial evergreen shrub	Feb-Apr	1B.1	S2	G3T2
<a href="#">Astragalus breweri</a>	Brewer's milk-vetch	Fabaceae	annual herb	Apr-Jun	4.2	S3	G3
<a href="#">Brasenia schreberi</a>	watershield	Cabombaceae	perennial rhizomatous herb (aquatic)	Jun-Sep	2B.3	S3	G5
<a href="#">Calycadenia micrantha</a>	small-flowered calycadenia	Asteraceae	annual herb	Jun-Sep	1B.2	S2	G2
<a href="#">Carex comosa</a>	bristly sedge	Cyperaceae	perennial rhizomatous herb	May-Sep	2B.1	S2	G5
<a href="#">Grimmia torenii</a>	Toren's grimmia	Grimmiaceae	moss		1B.3	S2	G2
<a href="#">Hesperolinon adenophyllum</a>	glandular western flax	Linaceae	annual herb	May-Aug	1B.2	S2S3	G2G3
<a href="#">Streptanthus glandulosus ssp. hoffmanii</a>	Hoffman's bristly jewelflower	Brassicaceae	annual herb	Mar-Jul	1B.3	S2	G4T2

### Suggested Citation

California Native Plant Society, Rare Plant Program. 2020. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website <http://www.rareplants.cnps.org> [accessed 21 January 2020].



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

---

<b>Review Personnel</b>	<b>Date</b>	<b>Purpose</b>
Caltrans biologists: Michelle Holtz, Jennifer Greslik, Grant Thornton	May 28, 2019	Botanical survey. General site reconnaissance.
Caltrans biologists: Alexandra Laughtin, Michelle Holtz, Jennifer Greslik, William Ragan	June 28, 2019	Botanical survey. General site reconnaissance.
Caltrans biologists: William Ragan, Allison Kunz, Rebecca Cole	November 22, 2019	General site reconnaissance. Habitat community mapping.
Caltrans biologists: William Ragan, Jonathan Edwards, Brooks Taylor, Rebecca Cole	March 17, 2020	Botanical survey. General site reconnaissance.
Caltrans biologists: William Ragan, Jonathan Edwards.	March 24, 2020	General site reconnaissance. Botanical surveys of ESL change areas at PM 2.05 and PM 2.70.
Caltrans biologists: William Ragan, Maureen Doyle, Star Argo	April 20, 2020	Disposal site botanical survey.

.....

