U.S. Highway 50/Ponderosa Road/ South Shingle Road Interchange Improvements Project

EL DORADO COUNTY, CALIFORNIA
DISTRICT 03 – ED – 50 – PM R8.3/R8.7
EA 03-2E550 / EFIS 0300000352

Environmental Assessment with Finding of No Significant Impact

Prepared by the
State of California Department of Transportation
and the County of El Dorado

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

June 2026

General Information about This Document

The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration (FHWA), has prepared this Environmental Assessment with Finding of No Significant Impact for the proposed project located in El Dorado County, California. Caltrans is the lead agency under the National Environmental Policy Act (NEPA). The document tells you why the project is being proposed, what alternatives have been considered for the project, how the existing environment could be affected by the project, the potential impacts of each of the alternatives, and the proposed avoidance, minimization, and/or mitigation measures. The Environmental Assessment circulated to the public for 30 days between January 16, 2026 and February 16, 2026. No comments were received during this period. Changes made to the document since the draft document circulation are shown in track changes using a margin bar. Minor editorial changes and clarifications are not shown. Additional copies of this document and the related technical studies are available for review at the following location:

- El Dorado County Department of Transportation, 2850 Fairlane Court, Placerville, CA 95667

This document may be downloaded at the following website:

- https://www.eldoradocounty.ca.gov/Land-Use/County-Projects/Road-Transportation-Projects/U.S.-50Ponderosa-Rd.So.-Shingle-Rd.-Interchange-Improvement

Alternative Formats:

For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Department of Transportation, District 3, Attn: John O'Connell, Public Information Officer – District 3, 703 B Street, Marysville, CA 95901; (530) 701-9459 (Voice), or use the California Relay Service 1 (800) 735-2929 (TTY to Voice), 1 (800) 735-2922 (Voice to TTY), 1 (800) 855-3000 (Spanish TTY to Voice and Voice to TTY), 1-800-854-7784 (Spanish and English Speech-to-Speech) or 711.

03-ED-50 - PMs R8.3/R8.7
EA 03-2E550 / EFIS 0300000352

Improve the United States Highway 50/Ponderosa Road/ South Shingle Road Interchange in El Dorado County from Post Mile R8.3 to Post Mile R8.7

ENVIRONMENTAL ASSESSMENT WITH FINDING OF NO SIGNIFICANT IMPACT

Submitted Pursuant to: (Federal) 42 USC 4332(2)(C)

THE STATE OF CALIFORNIA
Department of Transportation and El Dorado County

06/11/2026
Date

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CALIFORNIA DEPARTMENT OF TRANSPORTATION
FINDING OF NO SIGNIFICANT IMPACT (FONSI)

FOR

U.S. Highway 50/Ponderosa Road/South Shingle Road Interchange Project

The California Department of Transportation (Caltrans) and the El Dorado County Department of Transportation has determined that the Build Alternative for the U.S. Highway 50/Ponderosa Road/South Shingle Road Interchange Project will have no significant impact on the human environment. This FONSI is based on the attached Environmental Assessment (EA) which has been independently evaluated by Caltrans and determined to adequately and accurately discuss the need, environmental issues, and impacts of the proposed project and appropriate mitigation measures. It provides sufficient evidence and analysis for determining that an Environmental Impact Statement is not required. Caltrans takes full responsibility for the accuracy, scope, and content of the attached EA.

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

Erin Dwyer

Erin Dwyer
Environmental Office Chief
California Department of Transportation
NEPA Lead Agency

06/11/2026

Date

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CHAPTER 1. PROPOSED PROJECT

Introduction

The El Dorado County Department of Transportation proposes to modify the United State (U.S.) Highway 50/Ponderosa Road/South Shingle Road Interchange and adjacent frontage roads in El Dorado County, California. The County of El Dorado is the California Environmental Quality Act (CEQA) lead agency, while the California Department of Transportation (Caltrans) is the National Environmental Policy Act (NEPA) lead agency as assigned by the Federal Highway Administration (FHWA).

The existing U.S. Highway 50/Ponderosa Road/South Shingle Road Interchange Project (hereafter project) is located immediately west of Shingle Springs, El Dorado County, California, nine miles west of the city of Placerville and 34 miles east of downtown Sacramento (Figures 1 and 2). It is characterized as a Type L-7/L-9 (described below) configuration and was originally constructed in the late 1960s. There are adjacent frontage roads associated with this facility including North Shingle Road, Wild Chaparral Drive and Mother Lode Drive, and Sunset Road and Durock Road. All of these surface streets are generally interconnected and provide access to various commercial and retail businesses and three Park-and-Ride lots.

The interchange consists of a loop on-ramp, diagonal on- and off-ramp configuration in the westbound direction, and a diagonal off-ramp, loop on-ramp in the eastbound direction. As mentioned above, frontage roads occur both north (Wild Chaparral Drive and North Shingle Road) and south (Durock Road and Mother Lode Drive) of the present overcrossing; both are signalized and situated in a tightly spaced (non-standard) position relative to the bridge over U.S. Highway 50 (U.S. 50). Through the project, U.S. 50 currently consists of two 12-foot-wide lanes in each direction, 10-foot-wide paved outside shoulders, 5-foot-wide paved inside shoulders and a 60-foot-wide unpaved median.

Ponderosa Road provides access to residential and commercial uses, as well as Ponderosa High School. It is a north-south arterial that extends from Green Valley Road to Mother Lode Drive, where it then becomes South Shingle Road. South Shingle Road connects Ponderosa Road to Latrobe Road, approximately eight miles southwest of the project.

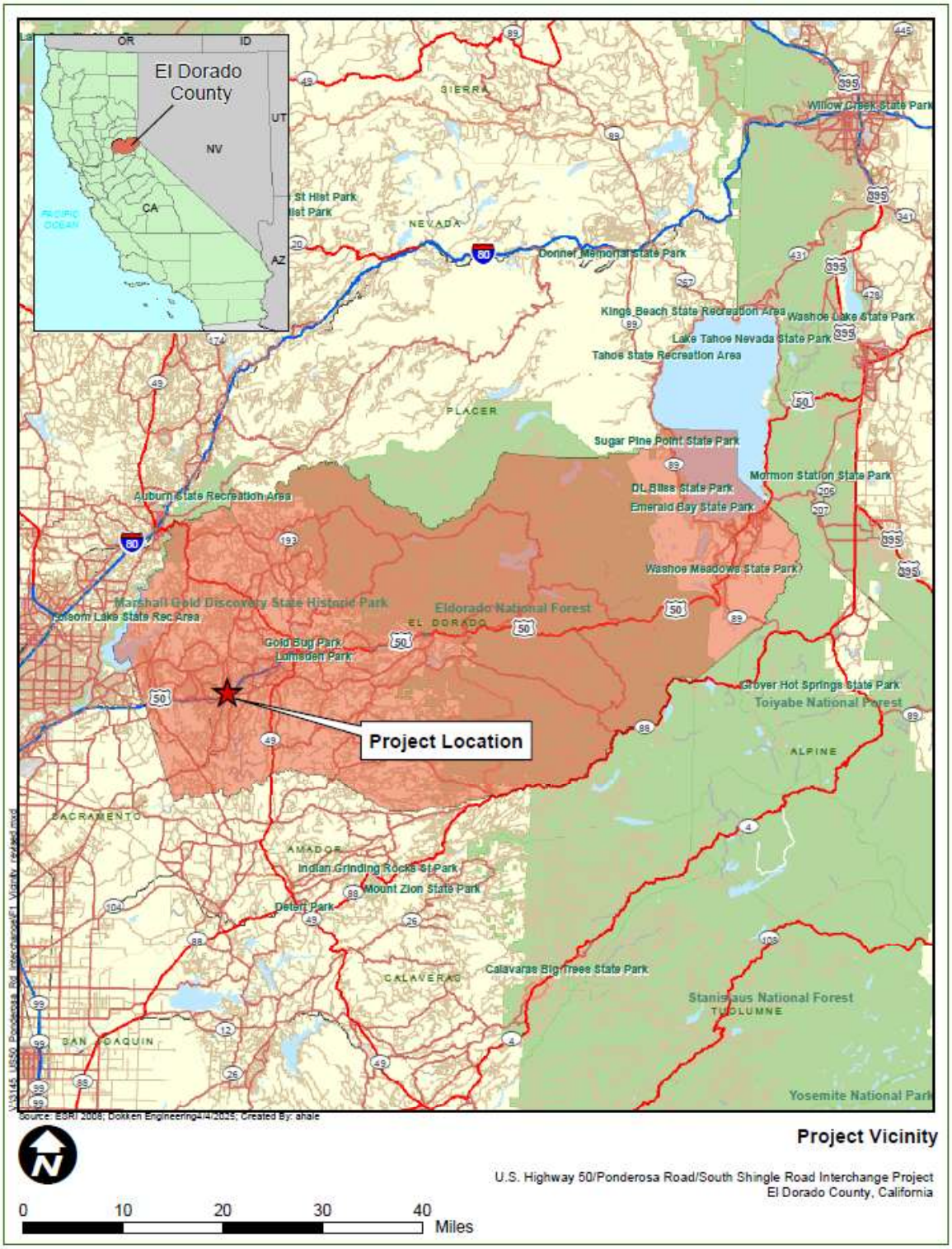

Figure 1. Project Vicinity

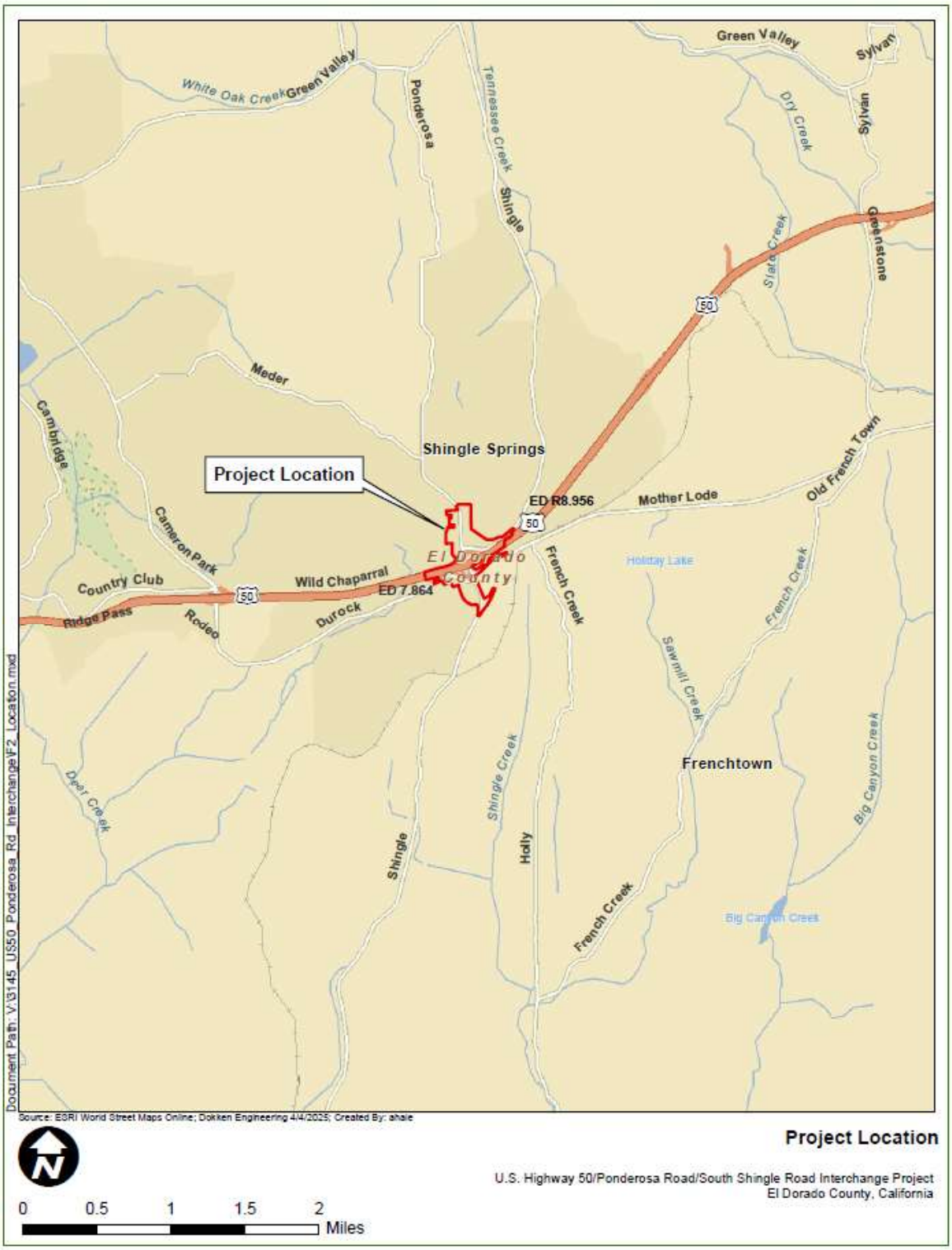

Figure 2. Project Location

North Shingle Road, a north-south two-lane arterial, joins Ponderosa Road to Green Valley Road. Durock Road, Mother Lode Drive and Wild Chaparral Drive are all east-west, two-lane arterials. Durock Road extends south of Cameron Park Drive to South Shingle Spring Road, where it then merges into Mother Lode Drive, before continuing eastward. Mother Lode Drive is situated between Ponderosa Road and Missouri Flat Roads. Wild Chaparral Drive carries traffic west of Ponderosa Road to its terminus west of Many Oaks Lane. Sunset Lane, a minor two-lane road, connects Mother Lode Drive with South Shingle Road.

Traffic congestion has increased over the last 30 years, which has increased traveler delay moving through the project interchange. Currently, the interchange is operating at, or near, capacity during peak travel hours. Traffic forecasts expect the vehicle trips using the interchange to continue to increase over the next 30 years. The proposed project has been designed to improve traffic congestion and interchange operation for both the current and future interchange conditions.

The El Dorado County Regional Transportation Plan identifies the need for improvements at U.S. 50/Ponderosa Road within the unincorporated region of El Dorado County (Capital Improvement Program [CIP] Project No. 71333, 71338, and 71339) (Appendix A). The SACOG also includes the project in their 2023 Federal Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) and 2025-2028 Metropolitan Improvement Transportation Program (MTIP). In addition, the project is consistent with the El Dorado County General Plan (El Dorado County 2004a) and El Dorado County Active Transportation Plan (El Dorado County 2020) (which shows Class II bike facilities along Ponderosa Road, Mother Lode Drive and South Shingle Road). The proposed project would respond to current congestion, decreasing existing levels of service (LOS) and anticipated future demands of motor vehicle traffic within the project area.

Purpose and Need

In the more than forty years since construction of the interchange, there has been increased traffic due to development along the U.S. 50 corridor at Shingle Springs, Placerville and Cameron Park, plus business development north and south of the interchange. This increase has created operational problems at the interchange ramps and on U.S. 50, where off-ramp traffic is known to back up on the U.S. 50 mainline. LOS is a letter-based description of how well a transportation facility is able to move the users through (Table 1).

Table 1. Description for Levels of Service

LOS	Description
A	Represent free flow. Individual users are virtually unaffected by the presence of others in the traffic stream.
B	Stable flow, but the presence of other users in the traffic stream begins to be noticeable.
C	Stable flow, but marks the beginning of the range of flow in which that operation of individual users becomes significantly affected by interactions with others in the traffic stream.
D	Represents high-density, but stable flow.
E	Represents operating conditions at or near the capacity level.
F	Represents forced or breakdown flow.

Source: Highway Capacity Manual Special Report 209 (Transportation Research Board 1985).

NEED

The interchange improvements are needed because travel through the interchange, including access to and from U.S. 50 and adjacent local roadways, has deteriorated as a result of increased local and interregional travel in the project area. Proposed developments in the project area, combined with increased regional and interregional growth, would continue to degrade LOS on existing local roadways and their connections to U.S. 50. Travel delays for the existing condition and the projected design year (2049) condition are shown in Table 2 below. South Shingle Road/Sunset Lane intersection (shown in row 5) would be combined into the South Shingle Road/Durock intersection (shown in row 4) resulting in a LOS of B or better.

Table 2. Level of Service for Existing, No-Build, and Build Conditions

			No-Build				
	AM	**PM**	**AM**	**PM**		**AM**	**PM**
1. Ponderosa Rd/North Shingle Rd/Wild Chaparral Dr	E	E	**F**	**F**	1. Ponderosa Rd/North Shingle Rd	B	A
2. Ponderosa Rd/U.S. 50 Westbound Ramps	D	C	E	**F**	2. Ponderosa Rd/ Wild Chaparral Dr/U.S. 50 Westbound Ramps	B	C
3. South Shingle Rd/Mother Lode Dr/U.S. 50 Eastbound Ramps	D	D	**F**	**F**	3. South Shingle Rd/Mother Lode Dr/U.S. 50 Eastbound Ramps	D	D
4. South Shingle Rd/Durock Rd	C	D	**F**	**F**	4. South Shingle Rd/Durock Rd/Sunset Ln	A	B
5. South Shingle Rd/Sunset Ln	A	A	**F**	**F**	-	-	-

Source: Transportation Research Board 1985

The Ponderosa Road/North Shingle Road/Wild Chaparral Drive intersection operates with LOS E during both peak hours. Peak hour queues exist in the southbound and westbound approaches to this intersection. The next most critical intersection is South Shingle Road/Mother Lode Drive/U.S. 50 Eastbound Ramps intersection, which has LOS D conditions during both peak hours. Intersection operations are forecasted to operate at LOS F by 2049.

Degrading LOS not only impacts single occupancy vehicles, but high occupancy vehicles and El Dorado County Transit Authority commuter bus users as well. The existing facility and geometrics do not provide bicycles and pedestrians with adequate access to and through the interchange. The facility is not Americans with Disabilities Act (ADA) compliant and is not consistent with the El Dorado County Active Transportation Plan (El Dorado County 2020).

PURPOSE

The proposed project would respond to current congestion, decreasing LOS and anticipated future demands of motor vehicle traffic in the project area while improving non-motorized movements. The proposed interchange improvements would relieve existing and future congestion by increasing the distance between intersections to improve traffic operations, adding turn pockets, and improving the interchange configuration. The purpose can be broken down into the following elements:

- Improve existing conditions for the ramp intersections and local roadway intersections adjacent to the interchange
- Maintain acceptable LOS on U.S. 50 and at existing access points to and from U.S. 50
- Improve multimodal mobility within and through the interchange
- Accommodate the needs of future local and regional traffic

INDEPENDENT UTILITY AND LOGICAL TERMINI

Federal Highway Administration (FHWA) regulations (23 Code of Federal Regulations [CFR] 771.111 [f]) require that the action evaluated:

1. Connect logical termini and be of sufficient length to address environmental matters on a broad scope.
2. Have independent utility or independent significance (be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made).
3. Not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

As described in this section, the proposed project specifically addresses existing and forecast congestion and traffic volumes at the interchange. The project proposes improvements on Ponderosa Road/South Shingle Road at its crossing of U.S. 50 to accommodate ramp improvements, intersection improvements, and roadway realignments for the nearby connecting roadways. These improvements would be able to function effectively in addressing both the congestion at the interchange and

the associated roadways and intersections. As a result, the proposed project connects logical termini with the existing roadway, as well as with the interchanges connection (ramps) to U.S. 50. The project area is large enough to appropriately address the potential environmental impacts of the proposed project. In addition, the proposed project can meet the identified need for congestion relief as an independent project and is not dependent on any other projects to meet the identified purpose for the interchange improvements. Finally, the proposed improvement would be designated and constructed to minimize the potential conflict with other reasonably foreseeable transportation improvements in the area.

Project Description

This section describes the proposed action and the project alternatives developed to meet the purpose and need of the project, while avoiding or minimizing environmental impacts. The alternatives are the Build Alternative and the No-Build Alternative.

The proposed improvements entail modifying the existing U.S. 50/Ponderosa Road/South Shingle Road Interchange and adjacent frontage roads. Modifications would include:

- increasing the capacity of the overcrossing from three to five lanes
- widening the westbound on-ramps
- providing acceleration/deceleration lanes at all ramps
- adding turn pockets on the local roads at ramp intersections
- adding square ramp junctions and islands to provide safety and ADA compliance for pedestrians and bicycles (Figures 1 through 3).

General speaking, the project extends westerly along the mainline for approximately 450 feet and easterly 600 feet. To the north, widening would extend 450 feet just north of the Ponderosa Road and North Shingle Road junction; and in a southerly direction 600 feet to the South Shingle Road and Sunset Lane Road junction. The project footprint encompasses approximately 165 acres and would involve partial right of way (ROW) acquisitions from 19 parcels. The project has been designed to reduce travel delays through the project area associated with traffic congestion, improve multimodal access and mobility, and accommodate the needs of future local and regional traffic.

Alternatives

Two alternatives are being considered for this project – the Build Alternative and the No-Build Alternative.

BUILD ALTERNATIVE

The Build Alternative proposes to widen the existing bridge from three to five lanes. It includes road widening and realignments of North Shingle Road and Durock Road. Wild Chaparral Drive remains in the existing condition which allows access to the Park-and-Ride lot adjacent to Wild Chaparral Drive and to the businesses and residences using this local road to access Ponderosa Road. The proposed Build Alternative also includes adding turn pockets, providing acceleration/deceleration lanes, high-occupancy vehicle (HOV) bypass lanes and ramp metering, and modifications to loop on- and off-ramps in both east and west directions. The preliminary geometrics are shown in Figure 3 below. The proposed Build Alternative meets the purpose and need of the project.

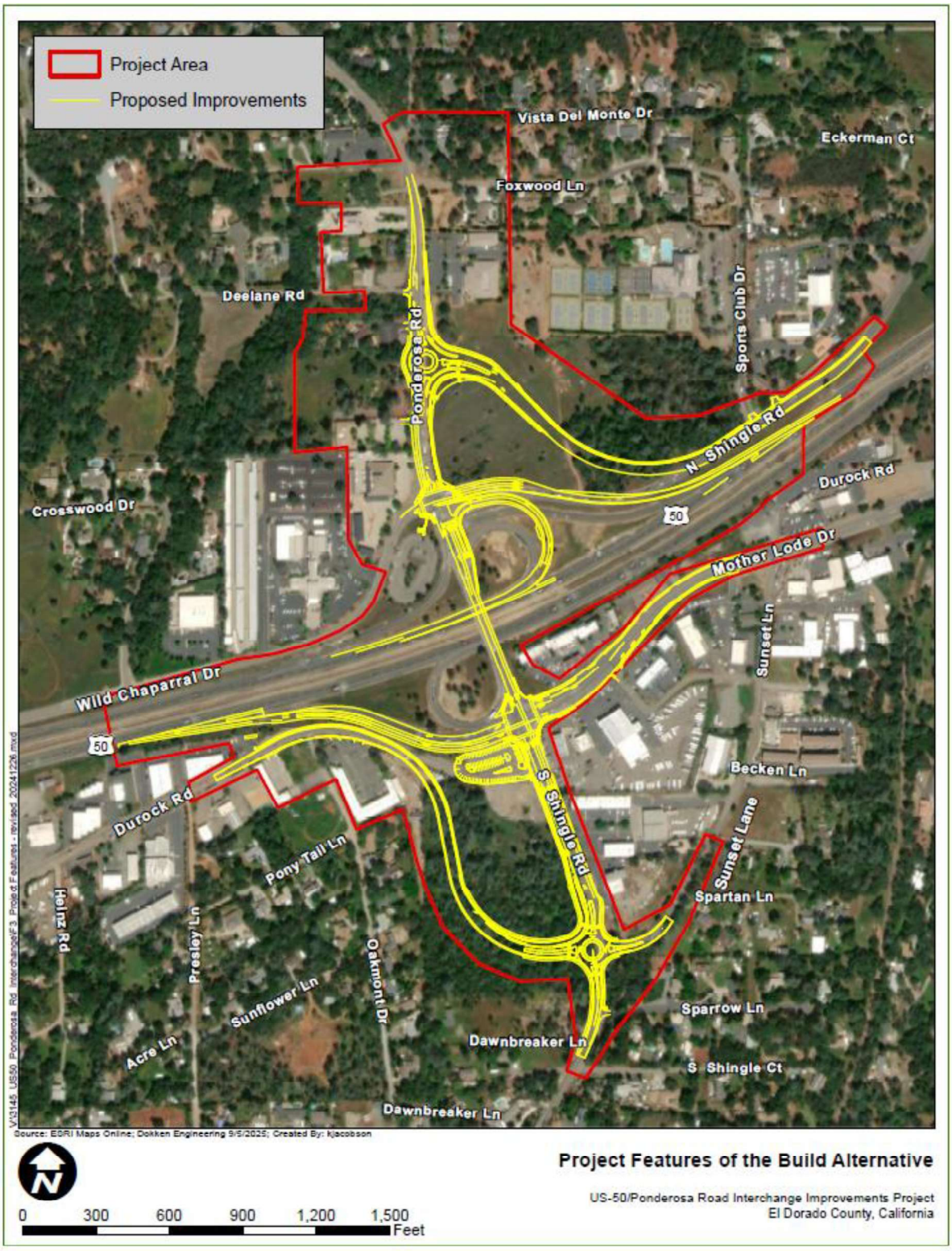

Figure 3. Project Features of the Build Alternative

Utilities that have the potential to be impacted by the project include water lines, sewer lines, overhead and underground electrical distribution and transmission lines, and multiple types of telecommunication lines. Impacted utilities would be relocated through coordination with each utility company. In the case of the overhead electrical lines, some lines may require relocation underground. Final utility relocations would be determined during project design. Although disposal and borrow sites are not anticipated, staging areas would be required and identified on the construction drawings within the project footprint. A staged construction program would also be adopted with access to adjacent businesses maintained.

Design, ROW acquisitions, utility relocations (including undergrounding), and construction of the ultimate project would be phased. Currently, the tentative phasing plan includes two phases: Phase 1 is the realignment of Durock Road and the realignment of North Shingle Road and westbound off-ramp improvements, and Phase 2 is the overcrossing widening and remaining ramp improvements. Interim improvements (entire alignment shown on map) for the project that are tentatively planned for construction in 2027 are shown in Figure 3. Phase 2 would be constructed at a later date.

NO-BUILD (NO-ACTION) ALTERNATIVE

Under this alternative, the facility would remain in its existing condition. There would continue to be deficient operations on the freeway mainline and ramp junctions that currently operate at LOS E; thus, vehicles would tend to back up on the mainline freeway during peak hour conditions. It does not include any bicycle or pedestrian improvements. The “No-Build” option does not address the current traffic deficiencies which are expected to deteriorate further resulting in LOS F by 2049. This alternative does not meet the purpose and need of the project.

IDENTIFICATION OF A PREFERRED ALTERNATIVE

After comparing and weighing the benefits and impacts of all feasible alternatives, the Project Development Team has identified Alternative 1: Build Alternative as the preferred alternative. A draft Initial Study with Proposed Mitigated Negative Declaration/Environmental Assessment was prepared in 2018 which analyzed Alternative 1, Alternative 2, and Alternative 3 for the proposed project. In March 2020, the County of El Dorado Board of Supervisors approved the Initial Study with Proposed Mitigated Negative Declaration with the selection of Alternative 1.

Alternatives 2 and 3 were eliminated due to impacts to local businesses, impacts to El Dorado County Transit Authority Bus Service, increased project costs, and opposition from the public. Alternative 1 is now referenced as the Build Alternative in this document whereas Alternatives 2 and 3 are now included as alternatives considered but eliminated from further consideration.

ALTERNATIVES CONSIDERED BUT ELIMINATED FROM FURTHER DISCUSSION PRIOR TO DRAFT ENVIRONMENTAL DOCUMENT

This section provides a summary of the design improvements that have been considered during project development but are not recommended for advancement to the PS&E phase.

Alternative 2

Alternative 2 includes all the design features of Alternative 1. The same utility relocations as Build Alternative 1 would also be required. However, Alternative 2 realigns Wild Chaparral Drive to create a four-way leg intersection with Ponderosa Road and the realigned North Shingle Road. A cul-de-sac access road would be constructed slightly west of the auto dealership, along the existing Wild Chaparral Drive alignment, to maintain the existing access to the Park-and-Ride lot and auto dealership to Ponderosa Road.

Alternative 3

Alternative 3 was characterized as a “Minimum Impact” build solution because it would require less ROW impacts compared to the other alternatives. This alternative proposed to widen the existing bridge from three to five lanes. Some of the utility relocations needed in Build Alternatives 1 and 2 would be required. The U.S. 50 ramps and approaches would be widened to the point they conform to the local roads and/or ramp intersections. Local roads themselves would not be widened under this alternative. Minimal ROW impacts would occur at adjacent commercial establishments and at the Park-and-Ride lots adjacent to North Shingle Road and Durock Road.

Transportation Management System (TMS)/Transportation Demand Management (TDM) Alternative

TMS and TDM strategies were considered as a potential alternative. These measures focus on improving the efficiency of the existing transportation system

through operational improvements and demand reduction measures such as ridesharing, transit use, and bicycle or pedestrian enhancements. While such strategies can help reduce vehicle miles traveled and improve traffic flow, they would not correct the existing geometric, operational, and safety deficiencies at the project area. As a result, TMS/TDM measures alone would not satisfy the project's purpose and need and were dismissed from further evaluation. However, several TMS/TDM features have been incorporated into the Build Alternative, including ramp designs to accommodate future ramp metering and HOV lanes and safety improvements at ramp intersections.

Project Phasing

Due to limited transportation funding, the project is proposed to be constructed in phases. Currently, the tentative phasing plan includes two phases: Phase 1 (interim improvements) is the realignment of Durock Road and the realignment of North Shingle Road and westbound off-ramp improvements, and Phase 2 is the overcrossing widening and remaining ramp improvements. Interim improvements for the project are tentatively planned for construction in 2027. Phase 2 would be constructed at a later date. See Table 3 for more information.

Table 3. Construction Phasing Plan

Phase	Build Alternative
Phase 1	Realign Durock Road. Remove existing South Shingle/Durock intersection. May reconstruct South Shingle Park-and-Ride lot to mitigate removal of Ponderosa Road East Park-and-Ride lot during Phase 2. Realign North Shingle Road. Construct westbound (WB) off ramp and WB loop on ramp. Remove WB off ramp/Ponderosa intersection. Remove Ponderosa Road East Park-and-Ride lot.
Phase 2	Widen overcrossing and construct the remainder of ramp improvements, reconstruct Park-and-Ride lots.

Permits and Approvals Needed

The following permits, licenses, agreements, and certifications (PLACs) are required for project construction (Table 4).

Table 4. Permits and Approvals

Agency	PLAC	Status
Federal Highway Administration	Air Quality Conformity Determination	FHWA air quality conformity concurrence was first obtained on August 24, 2011 and again on May 18, 2026.
Federal Highway Administration	Freeway Agreement	Would be obtained prior to construction.
Federal Highway Administration	Encroachment Permit	Would be obtained prior to construction, during final design.
United States Fish and Wildlife Service (USFWS)	Section 7 Consultation for Threatened and Endangered Species	The USFWS prepared a Biological Opinion which was received by County of El Dorado on June 9, 2010. In 2023, rare plant surveys were performed to determine the presence or absence of the previously identified population of Layne's butterweed. These surveys did not identify any populations of Layne's butterweed within the project area. Since the environmental conditions have remained unchanged and the species was observed during prior surveys, there is still potential for it to occur and conclusions from the 2009 Biological Assessment are still valid. In July 2024, Caltrans' environmental review team confirmed that updating the USFWS 2010 Biological Opinion was not necessary. The 2010 Biological Opinion documented the USFWS concurrence that the project would adversely affect Layne's Butterweed, but the proposed actions are not likely to jeopardize the continued existence of the species.
State Water Resources Control Board (SWRCB) Permit	Section 402 National Pollutant Discharge Elimination System (NPDES) Construction General Permit – Order No. 2022-0033-DWQ, NPDES No. CAS000003 and Caltrans Statewide Stormwater Permit, Order No. 2022-0057-DWQ, NPDES No. CAS000002	The current NPDES General Construction Permit would be obtained prior to the start of construction.

CHAPTER 2. AFFECTED ENVIRONMENT; ENVIRONMENTAL CONSEQUENCES; AND AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

TOPICS CONSIDERED BUT DETERMINED NOT TO BE RELEVANT

As part of the scoping and environmental analysis carried out for the project, the following environmental issues were considered but no adverse impacts were identified. As a result, there is no further discussion about these issues in this document.

Farmlands/Timberlands

The project area does not contain farmlands or timberlands. The project area is primarily made up of residential, commercial, industrial, and open space land uses.

Coastal Zone

The project is located outside of, and is non-contiguous to, the Coastal Zone and is not anticipated to have any effects on coastal resources.

Wild and Scenic Rivers

The project would improve an existing interchange facility located on U.S. 50. There are no designated Wild and Scenic Rivers in the vicinity of the project.

Parks and Recreation Facilities

The County of El Dorado maintains four recreational park locations in the project vicinity. Bradford Park is the closest park, located at 4224 Mother Lode Drive and 0.6 miles from the project area. The project would not have any impact on county park land.

Hydrology and Floodplain

The project is not located within a 100-year base floodplain and would not encroach upon a Federal Emergency Management Agency-defined floodplain. There are no mapped floodplains within or adjacent to the project area; therefore, no impacts to hydrology or floodplains are anticipated.

Section 4(f)

There are no historic sites, parks and recreational resources, wildlife or waterfowl refuges which meet the definition of a Section 4(f) resource within the project vicinity. Therefore, this project is not subject to the provisions of Section 4(f) of the Department of Transportation Act of 1966.

Paleontology

Paleontological resources are predominately found in sedimentary rock formations, while El Dorado County's geology is predominately volcanic (igneous rock type). Sedimentary formations are virtually nonexistent in El Dorado County. Additionally, while paleontological finds could occur in river and stream gravel deposits within county, this possibility would not be expected and is remote. Thus, impacts to paleontological resources are not anticipated.

HUMAN ENVIRONMENT

Existing and Future Land Use

In 2009, a Community Impact Assessment (CIA) was prepared by PAR Environmental Services, Inc. for the project (PAR 2009a). In 2024, an addendum to the CIA was prepared by Dokken Engineering, which verified that the findings and conclusions described in the 2009 CIA are still valid (Dokken Engineering 2024a). Discussion in the following sections summarizes the CIA that was prepared for the proposed project in 2009 and updated in 2024.

Existing Land Use

Development in the project area did not begin until post-World War II. A few scattered residences were in place by the 1960s along Ponderosa Road and South Shingle Road, however the majority of commercial and residential development in the project area did not occur until the 1980s. Over the past 40 years, El Dorado County has experienced population growth and is projected to grow by an additional 16,846 persons from 2020 to 2030. The communities served by the project interchange are no exception to this trend.

The proposed project is in a defined Community Region (areas that allow urban or suburban development) in the El Dorado County General Plan (El Dorado County 2004). Land uses on properties surrounding the interchange include C-Commercial (car dealerships, equipment rental, restaurants, gas station, office buildings, In Shape Health Club, day care facilities); HDR-High Density Multi-Family Residential, MDR-Medium Density Multi-Family Residential, MFR-Multi-Family Residential, and PF-Public Facilities (Figure 4). Additionally, the northwest, northeast and southwest quadrants of the project contain Park-and-Ride lots. Figure 4 shows the El Dorado County General Plan Land Use Designations for properties in the vicinity of the interchange and Figure 5 shows the location of parcels by Assessor Parcel Number (APN).

Utilities within the project area include El Dorado Irrigation District (EID) water and sewer lines, Pacific Gas and Electric Company (PG&E) gas and electric lines, AT&T fiber optic lines, and Comcast cable lines. See Utilities/ Emergency Services section for more information.

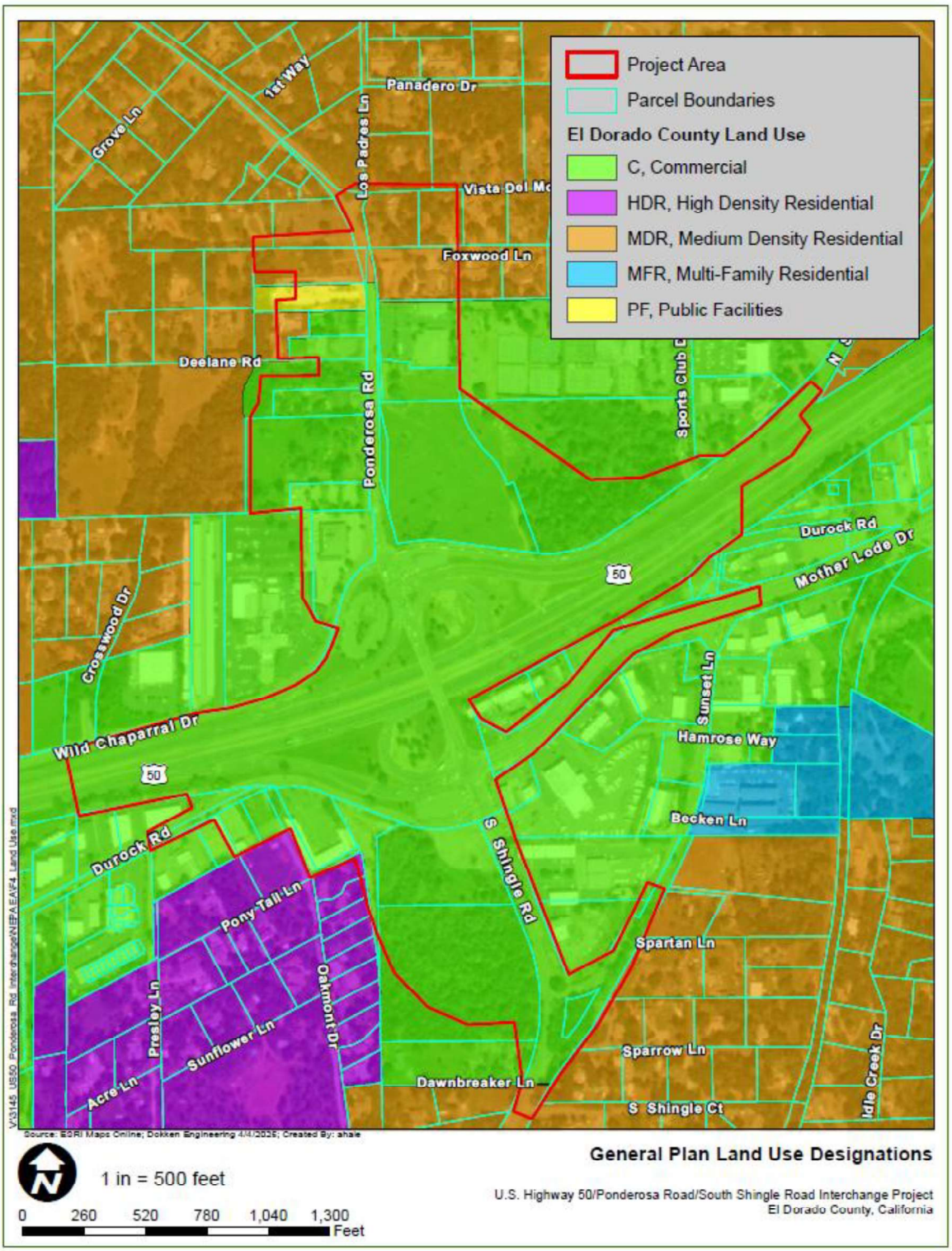

Figure 4. Land Use Designations

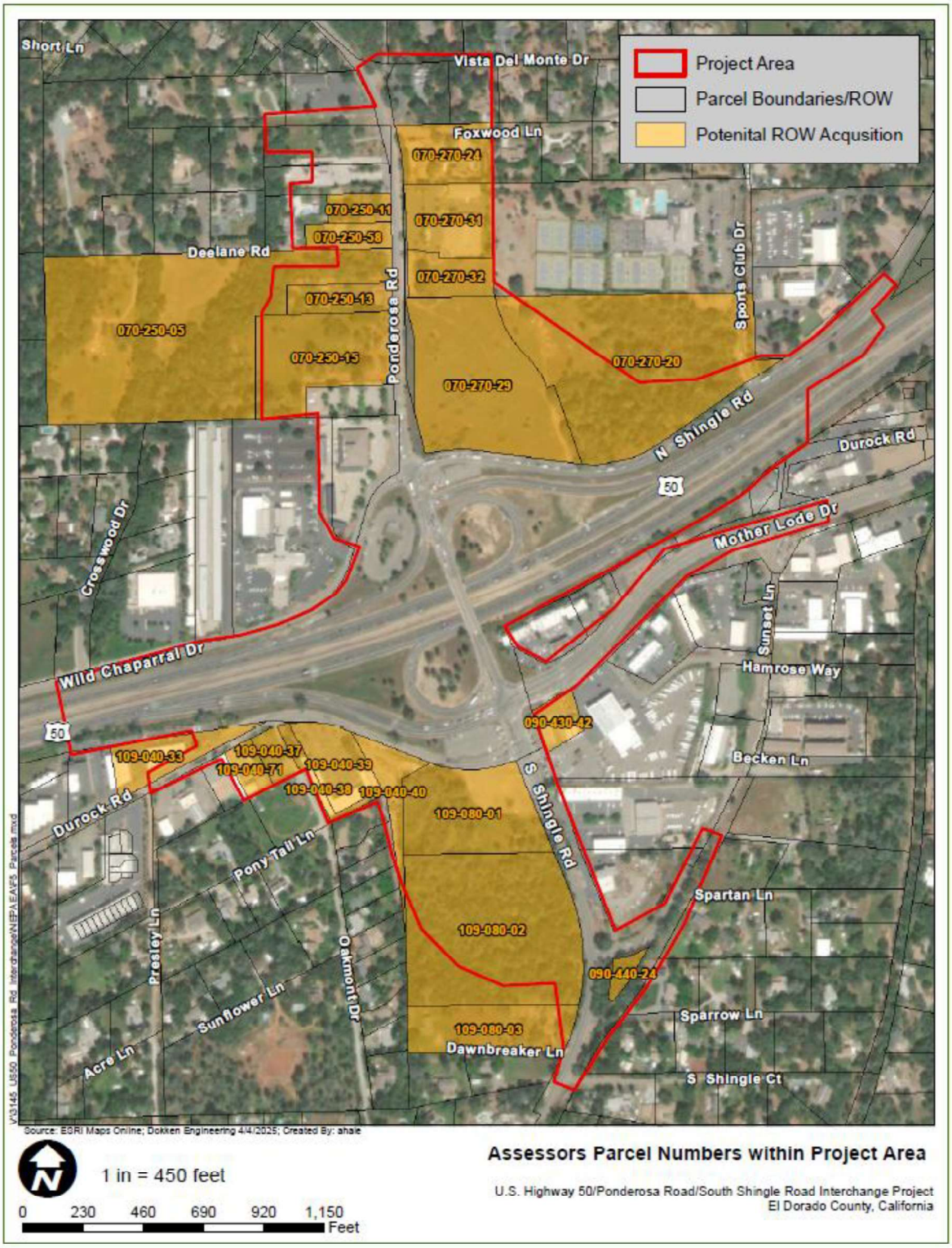

Figure 5. Assessor Parcel Numbers within Project Area

Future Land Use

The northeast (APNs 070-270-29 and 070-270-20) and southwest (APNs 108-080-01 and 108-080-02) quadrants of the project are predominately undeveloped. There is one parcel (APN 070-250-15) in the northwest quadrant with vacant land. These areas within the project limits have potential for future development. Table 5 lists current projects that are planned within the project area.

Table 5. Planned and Future Development in the Project Vicinity

Project/Activity	Jurisdiction	Project/Action Summary	Status
U.S. 50 HOV Lanes	Caltrans	This project includes widening U.S. Highway 50 in the median (middle) to extend the eastbound and westbound High Occupancy Vehicle (HOV) lanes.	Phase 1 completed. Design in progress for Phase 2.
Cameron Park Interchange Improvement	Caltrans	Phased interchange improvements to the transportation facilities at U.S. Highway 50 and Cameron Park Drive.	Project Planning/ Alternatives Development
Mixed Use Development	County of El Dorado	Development Plan for 14 single-family residential lots, ranging in size from 5,151 to 9,590 SF, a 3.28 acre hotel site, a 4.94 acre site to include a restaurant, food market, and two story retail and office building, and two open space lots totaling 35,506 SF.	Tentative Map, Development Plan, General Plan Amendment, and Rezone applications in progress.
Commercial	County of El Dorado	Proposed 90 units in a community care facility and an assisted living facility and clubhouse for a project total of 115,650 SF.	Parcel Map, Planned Development, General Plan Amendment, and Rezone Applications in progress.
Residential Development	County of El Dorado	Final Map to create 12 lots ranging in size from 1.003 to 1.583 acres on the 14.438-acre site.	Final map Application in progress.
Residential Development	County of El Dorado	Tentative subdivision to create 5 lots ranging from 1.0 to 1.07 acres.	Tentative Map Extension approved.
Residential Development	County of El Dorado	Development of 632 detached single-family residential units and retention of one existing residential lot for use as a development-enabled community supported agricultural farm.	Development Plan, Tentative Map, General Plan Amendment, and Rezone applications currently on hold.

Consistency with State, Regional, and Local Plans and Programs

Affected Environment

Regional Transportation Plans

El Dorado County Department of Transportation uses an annually updated Ten-Year Capital Improvement Program (CIP). The CIP includes short-range and long-range capital improvement plans. The project is consistent with the El Dorado County Regional Transportation Plan (Appendix A) and is listed under CIP Project Nos. 36104010, 36104009 and 36104008. The project is also consistent with the El Dorado County Active Transportation Plan (El Dorado County 2020) as the pedestrian and bicycle facilities identified in that plan would be implemented by the project. A record of this project's inclusion in the CIP has been included in Appendix A.

SACOG is an association of local governments in the six-county Sacramento region. Its members include the counties of El Dorado, Placer, Sacramento, Sutter, Yolo and Yuba as well as 22 cities within the region. SACOG provides transportation planning and funding for the region and serves as a forum for the study and resolution of regional issues. In addition to preparing the region's long-range transportation plan, SACOG approves the distribution of affordable housing in the region and assists in planning for transit, bicycle networks, clean air, and airport land uses. The project is listed in the 2023 SACOG Federal MTP/SCS and 2025-28 MTIP as ID ELD19180. A record of this inclusion has been provided in Appendix A.

El Dorado County General Plan

General Plans are prepared pursuant to state mandates which require every city and county within the state to adopt a comprehensive, long-term General Plan for the physical development of the community and lands located inside its boundary which, in the planning agency's judgment, bears a relation to its planning. Additionally, General Plans establish a comprehensive document which can improve coordination of community development activities among all units of government.

Environmental Consequences

Table 6 below lists the goals and policies of the El Dorado County General Plan relevant to the proposed project and provides a discussion of consistency with each policy. The ultimate determination of consistency with local General Plan goals and policies lies with the El Dorado County Board of Supervisors.

Table 6. Project Consistency with the El Dorado County General Plan

Goal, Objective, or Policy	Consistency Discussion
Circulation Element	
GOAL TC-1: To plan for and provide a unified, coordinated, and cost-efficient county road and highway system that ensures the safe, orderly, and efficient movement of people and goods. **Policy TC-1n:** The County shall generally base expenditure of discretionary road funds for road uses on the following sequence of priorities: A. Maintenance, rehabilitation, reconstruction, and operation of the existing County-maintained road system; B. Safety improvements where physical modifications or capital improvements would reduce the number and/or severity of accidents; and C. Capital improvements to expand capacity or reduce congestion on roadways at or below County level of service standards, and to expand the roadway network, consistent with other policies of this General Plan. **Policy TC-1q:** The County of El Dorado shall utilize road construction methods that seek to reduce air, water, and noise pollution associated with road and highway development.	The project is included in the County of El Dorado's 10-year Capital Improvement Program (CIP). Full air, noise, and water quality technical studies, as well as addendums, have been prepared for this project. **Build Alternative:** Consistent. The proposed project is a roadway improvement project. The project proposes to improve existing traffic operational deficiencies by increasing the distance between intersections to improve traffic operations, adding turn pockets and improving the interchange configuration. The Build Alternative would maintain LOS D or better at all intersections within the project. **No-Build Alternative:** Not Consistent. Would not improve the intersection and would not improve existing and future LOS in the project area.
GOAL TC-3: To reduce travel demand on the County of El Dorado's road system and maximize the operating efficiency of transportation facilities, thereby reducing the quantity of motor vehicle emissions and the amount of investment required in new or expanded facilities.	**Build Alternative:** Consistent. An Air Quality Technical Report and addendum was prepared for this project (PAR Environmental Services, Inc. 2011, Dokken Engineering 2025a). The project was analyzed for regional and state

Goal, Objective, or Policy	Consistency Discussion
Policy TC-3a: The County of El Dorado shall support all standards and regulations adopted by the El Dorado County of El Dorado Air Quality Management District governing transportation control measures and applicable state and federal standards.	conformity and it was shown that all impacts to air quality are not substantial. **No-Build Alternative:** Not Consistent. Would not improve the intersection and would not improve existing and future LOS in the project area, resulting in higher air quality impacts at a regional and statewide level.
GOAL TC-4: To provide a safe, continuous, and easily accessible non-motorized transportation system that facilitates the use of the viable alternative transportation modes. **Policy TC-4a:** The County of El Dorado shall implement a system of recreational, commuter, and inter-community bicycle routes in accordance with the County of El Dorado's Bikeway Master Plan. The plan should designate bikeways connecting residential areas to retail, entertainment, and employment centers and near major traffic generators such as recreational areas, parks of regional significance, schools, and other major public facilities, and along recreational routes.	**Build Alternative:** Consistent. One of the purposes of this project is to improve multimodal mobility within and through the interchange. Bike lanes provided in the project area would be consistent with the El Dorado County Active Transportation Plan (El Dorado County 2020). Additionally, the project would square up (remove free-rights) interchange ramps to improve bicycle mobility and access. **No-Build Alternative:** Not Consistent. No improvements to intermodal transportation, including pedestrian and bicycle facilities, would be done.
GOAL TC-5: To provide safe, continuous, and accessible sidewalks and pedestrian facilities as a viable alternative transportation mode. **Policy TC-5b:** In commercial and research and development subdivisions, curbs and sidewalks shall be required on all roads. Sidewalks in industrial subdivisions may be required as appropriate.	**Build Alternative:** Consistent. Sidewalk would be added along all roads within the project area. The project would remove free-rights on interchange ramps to provide better pedestrian mobility and access. **No-Build Alternative:** Not Consistent. The existing pedestrian facilities are at current standards and would not be improved. Existing facilities are not contiguous.
GOAL TC-X: To coordinate planning and implementation of roadway improvements with new development to maintain adequate levels of service on El Dorado County roads. **Policy TC-Xd:** LOS for El Dorado county-maintained roads and state highways within the unincorporated areas of the county shall not be worse than LOS E in the Community Regions or LOS D in the Rural Centers and Rural Regions except as specified in Table TC-2. The volume to	**Build Alternative:** Consistent. The proposed project is a roadway improvement project. The project proposes to improve existing traffic operational deficiencies by increasing the distance between intersections to improve traffic operations, adding turn pockets and improving the interchange configuration. The Build Alternative would maintain LOS D or better at all intersections within the project area.

Goal, Objective, or Policy	Consistency Discussion
capacity ratio of the roadway segments listed in Table TC-2 shall not exceed the ratio specified in that table. Level of Service would be as defined in the latest edition of the Highway Capacity Manual (Transportation Research Board, National Research Council) and calculated using the methodologies contained in that manual. Analysis periods shall be based on the professional judgment of the Department of Transportation which shall consider periods including, but not limited to, Weekday Average Daily Traffic (ADT), AM Peak Hour, and PM Peak hour traffic volumes.	**No-Build Alternative:** Not Consistent. Would not improve the intersection and would not improve existing and future LOS in the project area.
Conservation and Open Space Element	
OBJECTIVE 7.4.1: RARE, THREATENED, AND ENDANGERED SPECIES The County of El Dorado shall protect State and Federally recognized rare, threatened, or endangered species and their habitats consistent with Federal and State laws. **Policy 7.4.1.1** The County of El Dorado shall continue to provide for the permanent protection of the eight sensitive plant species known as the Pine Hill endemics and their habitat through the establishment and management of ecological preserves consistent with County of El Dorado Code Chapter 17.71 and the USFWS's Gabbro Soil Plants for the Central Sierra Nevada Foothills Recovery Plan (USFWS 2002).	**Build Alternative:** Consistent. The Build Alternative would result in the permanent loss of 0.01 acre of occupied habitat for Layne's butterweed. Compliance with the measures outlined in the 2010 Biological Opinion would be required. **No-Build Alternative:** Consistent. No changes to the project intersection or associated roadways would occur and no protected plant species would be impacted.

Build Alternative

The proposed Project would respond to current congestion, decreasing existing levels of service (LOS) and anticipated future demands of motor vehicle traffic within the project area. As shown in Table 6, the proposed project is consistent with Goals TC-1 through TC-X of the El Dorado County General Plan Circulation and Conservation and Open Space Element. The project is also consistent with the El Dorado County Active Transportation Plan (El Dorado County 2020) which shows Class II bike facilities along Ponderosa Road, Mother Lode Drive and South Shingle Road.

No-Build Alternative

Under the No-Build Alternative, existing LOS would continue to worsen and anticipated future demands of motor vehicle traffic within the project area would not be met. Therefore, the No-Build Alternative is not consistent with the El Dorado County General Plan or the El Dorado County Active Transportation Plan.

Avoidance, Minimization, and/or Mitigation Measures

Based on the information above, no measures are needed.

Growth

Regulatory Setting

NEPA regulations (40 CFR 1500-1508) require evaluation of the potential environmental effects of all proposed federal activities and programs. This includes predictable trends in the area in the baseline analysis of the effected environment, such as predictable trends in growth.

Environmental Consequences

Growth was analyzed as part of the CIA for the project (PAR Environmental Services, Inc. 2009a). In 2024, an addendum to the CIA was prepared by Dokken Engineering, which verified that the findings and conclusions described in the 2009 CIA are still valid (Dokken Engineering 2024a). Discussion in the following sections summarizes the growth section in the CIA and CIA Addendum that was prepared for the proposed project in 2009 and 2024, respectively.

The relationship between transportation, economic growth, and land development is a product of multiple social, economic and geographical factors. These factors are presented in greater detail in the CIA and CIA Addendum prepared for this project. It should be noted that a project's potential to induce growth does not automatically result in growth. Growth can only occur through capital investments and new economic opportunities by the public or private sectors. Development is a result of economic investment in an area.

First Cut Screening

How, if at all, does the proposed project potentially change accessibility[1]?

The Build Alternative includes realigning North Shingle Road and Durock Road, which would provide new connection points and modified access at the facility. Although these road realignments provide new connection points, North Shingle Road would be shifted approximately 600 feet north, forming an intersection at Ponderosa Road, and Durock Road would be shifted approximately 800 feet south to form an intersection at South Shingle Road/Sunset Lane. Ponderosa Road and South Shingle Road/Sunset Lane are already part of the existing street network; thus, the road realignments would not provide access to previously inaccessible areas. Realigning North Shingle Road and Durock Road would relieve existing and future congestion by improving the interchange configuration. Therefore, accessiblity[1] in the area would be improved.

Without the project to provide new connection points, current traffic deficiencies (which are expected to deteriorate further, resulting in LOS F by 2049) would not be addressed.

How, if at all, do the project type, project location, and growth-pressure potentially influence growth?

The proposed project is located within the boundaries of a community region. Development within these areas is focused on urban and suburban development. Main objectives for these community centers, as defined by the El Dorado County General Plan, include allowing for population and economic growth, preserving the character and extent of rural centers and urban communities, emphasizing the natural setting, and promoting built design elements that contribute to the quality of life and economic health of the county.

The interchange improvements are needed because travel through the interchange, including access to and from U.S. 50 and adjacent local roadways, has deteriorated as a result of increased local and interregional travel in the project area.

[1] Accessibility is defined as access to destinations.

Proposed developments in the project area, combined with increased regional and interregional growth, would continue to degrade LOS on existing local roadways and their connections to U.S. 50. Thus, as growth in the area is expected to occur regardless of the project because of the planned development, the proposed project is not expected to influence the amount, timing, or location of growth in the area.

Is project-related growth reasonably foreseeable as defined by NEPA?

Under NEPA, reasonably foreseeable events are those that are likely to occur or are probable, rather than those that are merely possible. Development in the area is governed by the El Dorado County General Plan. The project is anticipated to provide improved accessibility[1] for both regional and local travel.

Table 5 identifies reasonably foreseeable projects. These projects are not dependent on the proposed interchange; however, the interchange improvements are expected to accommodate the anticipated increased traffic that is predicted to result from the planned development.

The project is also consistent with the El Dorado County General Plan (El Dorado County 2004a) and consistent with the SACOG 2023, SACOG Federal MTP/SCS, and SACOG 2025-28 MTIP (Appendix A).

Development in the project area is expected to occur with or without the project since most of this development is already approved by the County of El Dorado or currently under construction and is a continuation of growth patterns within the County of El Dorado over the past 10-15 years.

If there is project-related growth, how if at all will that impact resources of concern?

Because project-related growth is not anticipated as a result of the project, the project would not result in growth-related impacts on resources of concern.

Based on the above, no further analysis is necessary for the proposed project.

Construction Impacts

There would not be any construction-related impacts on growth. All roads to commercial and residential areas would remain open during construction. Construction activities would be temporary and short in duration, lasting less than two years for the longest period of construction.

Community Character and Cohesion

Regulatory Setting

The NEPA of 1969, as amended, established that the federal government use all practicable means to ensure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings (42 USC 4331[b][2]). The FHWA, in its implementation of NEPA (23 USC 109[h]), directs that final decisions on projects are to be made in the best overall public interest. This requires taking into account adverse environmental impacts, such as destruction or disruption of human-made resources, community cohesion, and the availability of public facilities and services.

Affected Environment

Community impacts have been analyzed as part of the CIA for the project prepared by PAR Environmental Services, Inc. in 2009 (2009a). In 2024, an addendum to the CIA was prepared by Dokken Engineering, which verified that the findings and conclusions described in the 2009 CIA are still valid (Dokken Engineering 2024a). Discussion in the following sections summarize the community character and cohesion sections in the CIA and CIA Addendum prepared for the proposed project in 2009 and 2024, respectively.

The character of the project area can be classified as a Community Region in the El Dorado County General Plan. Community regions are areas that allow for urban or suburban development. The existing interchange area land uses include C-Commercial (car dealerships, equipment rental, restaurants, service station, gas station, office buildings, In Shape Health Club, day care facilities); HDR-High Density Multi-Family Residential, MDR-Medium Density Multi-Family Residential, MFR-Multi-Family Residential, and PF-Public Facilities (Figure 4).

Commercial and industrial developments are located immediately adjacent to the interchange, while residential uses are located at the north and south ends of the project area. Additionally, the northwest, northeast and southwest quadrants of the project contain Park-and-Ride lots. According to the 2021-2029 El Dorado County General Plan–Housing Element, the county's population could grow by an additional 16,846 persons from 2020 to 2030; communities served by the project are no exception to this growth trend.

Cohesion refers to the degree of interaction among individuals, groups and institutions that make up the community. Factors that contribute to a high level of community cohesion include long average length of residency, frequent person contact, ethnic group clusters and high level of community activity, elderly residents, and single-family home ownership (Dokken Engineering 2024a).

Information on community character and cohesion was obtained from field observations. The 2020 United States Census was examined at the county, Census Tract, and Census Tract Block Groups (CTBG) levels. The project currently includes CTBG 308.04, 308.12, and 309.02 in the county. Census geography areas for the project are shown below in Figure 6. Data from the adjacent Census Tract Block Groups was used to describe household composition, age, ethnicity, and economic conditions of the populations in the project corridor and the surrounding area.

2020 Census data indicates that approximately 25% of the population within these CTBGs is over the age of 65 and 81% is white. Approximately 12% of the population is considered to be low income, with the majority well above the poverty level. Finally, approximately 4% of the population is unemployed.

Users of the U.S. Highway 50/Ponderosa Road/South Shingle Road Interchange exhibit characteristics for both strong and weak community cohesion. Strong community cohesion characteristics include ethnic homogeneity and home ownership tenure, while weak community cohesion characteristics include high vehicle speeds along frontage roads, a lack of pedestrian and bicycle facilities, low population density, and scarcity of community institutions in the project area. When considering all factors, the community has a moderate to low amount of community cohesion

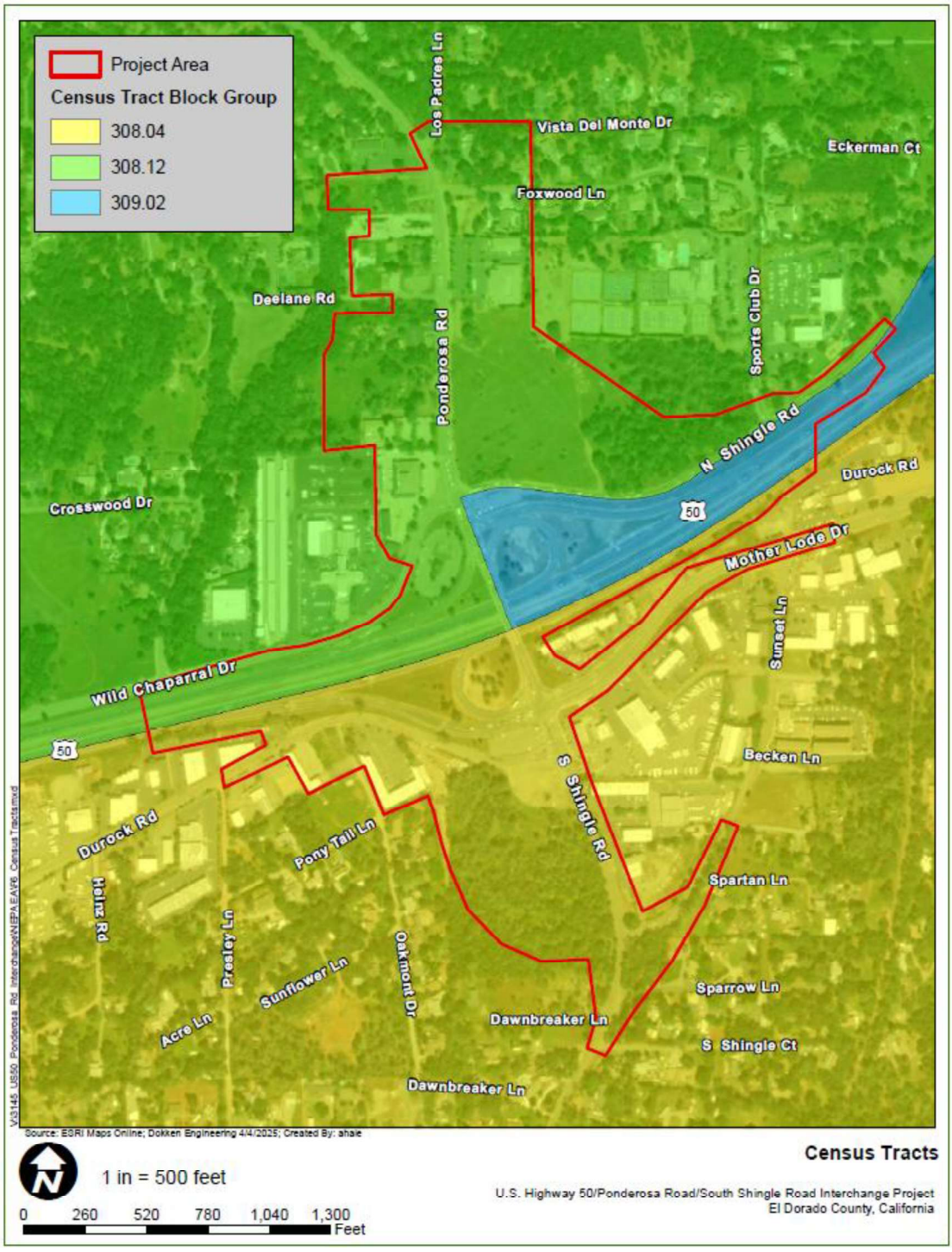

Figure 6. Census Track Block Groups

Environmental Consequences

Permanent Impacts

Build Alternative

The project would improve an existing transportation facility and help alleviate current and anticipated congestion at the interchange. As such, it would not create any physical barriers within the community, nor would it isolate or separate existing residences from businesses or community facilities.

Full acquisition of any residential or commercial properties is not anticipated. While some partial acquisitions may occur, they would not affect existing structures. No relocations of residences or businesses would be necessary. There would be no anticipated loss of access to businesses or associated employment impacts.

Three Park-and-Ride facilities are currently located within the project area—in the northwest, northeast, and southwest quadrants. The northwest lot has 94 spaces, the northeast lot has 18 spaces, and the southwest lot has 44 spaces. Under the Build Alternative, improvements to the interchange on- and off-ramps and the realignment of North Shingle Road would eliminate the Park-and-Ride lot in the northeast quadrant which would result in a loss of 18 parking spaces. Replacement spaces have been incorporated into the project design by adding 18 spaces to the Park and Ride lot in the southwest quadrant. As a result, the Build Alternative would not permanently reduce the number of Park and Ride parking spaces in the project area and long-term impacts to commuter parking availability are not expected. Lastly, the project would enhance bicycle and pedestrian mobility and safety by incorporating new sidewalks, bicycle lanes, and removing the free-rights to the interchange on- and off-ramps. Enhanced bicycle and pedestrian facilities strengthen community character and cohesion by improving walkability and fostering a stronger sense of place and belonging. By connecting homes, schools, transit stops, and local businesses, these improvements support local culture, reinforce community identity, reduce social isolation, and create more opportunities for meaningful community engagement.

In summary, operation of the project would not divide or fragment the community, disrupt access to key destinations, or result in adverse economic effects. As such, community character and cohesion would not be negatively impacted. Instead, the

project would strengthen community character and cohesion by improving bicycle and pedestrian mobility and safety in the area.

No-Build Alternative

Under the No-Build Alternative, community character and cohesion (CCC) would not be affected. The interchange would not be improved and associated improvements to the LOS at the intersections in the project area would not be improved.

Temporary Impacts

Build Alternative

Under the Build Alternative, temporary or construction-related impacts are anticipated. Construction noise from machinery may be present but would be limited to daytime hours and permitted decibel levels. During construction, pedestrian and bicycle access would be maintained (where facilities are currently present), on at least one side of the roadway through the project area. This would create minor barriers to everyday mobility and temporarily limit access to key community resources, such as schools and local businesses. As for vehicular access, no major lane closures are anticipated. Through lanes would be maintained where possible and appropriate detour routes would be made available when necessary. Access to all businesses, schools, and residences would be maintained. Some delays on these road sections may occur. Diminished access to bicycle and pedestrian facilities and detour routes may contribute to a perceived sense of division or inconvenience, which could diminish the sense of connectedness and shared identity that contribute to community cohesion. However, with implementation of standard traffic management measures and avoidance/minimization measures CCC-1 through CCC-4 (indicated below), impacts on community character and cohesion would be minimized and would not be substantial.

Construction activities may impact access to businesses in the project area, which could lead to adverse impacts to community character and cohesion. Local businesses often serve as informal gathering places and contribute to the neighborhood's identity and walkability. When access is restricted, residents may lose a familiar space for interaction, reducing opportunities for casual social connection and shared experiences. However, with implementation of avoidance and minimization measures CCC-2 and CCC-3 (indicated below), impacts on

community character and cohesion would be minimized and would not be substantial.

No-Build Alternative

Under the No-Build Alternative, there would be no construction, and no temporary impacts related to community character and cohesion.

Avoidance, Minimization, and/or Mitigation Measures

The avoidance and minimization measures described below would ensure there is no adverse impact on community character and cohesion during construction of the project.

CCC-1: Prior to the start of construction, to provide a point of contact with residents, businesses, and public safety agencies that will be affected by construction, the County of El Dorado will establish a public outreach/community liaison program which would utilize electronic and print media, changeable message signs, and other means of public outreach as necessary. These efforts will be paired with the Transportation Management Plan which would reduce temporary construction impacts to users of the transportation facility.

CCC-2: Where feasible, temporary signage will be installed notifying the public of closures or detours and the expected duration of the closure.

CCC-3: Temporary disruptions to access for businesses in the improvement area will be minimized by coordinating construction to provide alternative access points and by ensuring that all businesses have at least one open driveway during construction.

CCC-4: Pedestrian and bicycle access will be maintained (where facilities are currently present) on at least one side of the roadway through the project area during construction.

Relocations and Real Property Acquisition

Regulatory Setting

Caltrans Relocation Assistance Program (RAP) is based on the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as

amended (Uniform Act), and Title 49 CFR Part 24. The purpose of the RAP is to ensure that persons displaced as a result of a transportation project are treated fairly, consistently, and equitably so that such persons would not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole. Please see Appendix B for a summary of the RAP.

All relocation services and benefits are administered without regard to race, color, national origin, persons with disabilities, religion, age, or sex. Please see Appendix B for a copy of the Caltrans Title VI Policy Statement.

Affected Environment

After completion of the CIA for the project in February of 2009, a Relocation Impact Study was prepared in April of 2009 (PAR Environmental Services 2009b) to address potential impacts caused by acquisitions of properties in the project area which would occur as a result of the previous design. In 2024, the design was updated and an addendum to the CIA was prepared by Dokken Engineering (Dokken Engineering 2024a). In 2025, it was determined that only partial acquisitions would be required.

Environmental Consequences

Build Alternative

Partial acquisitions of land would be required along Durock Road, Mother Lode Drive, Ponderosa Road, and North/South Shingle Road. A total of 19 parcels may be impacted by partial ROW acquisition, shown below in Tables 7 through 9. These partial acquisitions would not constitute a substantial alteration to the commercial development, communities, or existing neighborhoods. Full acquisitions are not necessary.

Table 7. Preliminary Residential Property Right-of-Way Acquisition

APN	Type of Property	Type of Acquisition	Total ROW Acquisition (square feet)
070-250-05	Residential - Vacant Land	Partial	4,398
070-250-11	Residential - Improved Multi-Residential	Partial	2,112
070-250-15	Residential - Vacant Land	Partial	9,513
070-270-20	Residential - Vacant Land	Partial	30,675
070-270-24	Residential - Single Family	Partial	835
090-440-24	Residential - Single Family	Partial	1,400
109-040-38	Residential - Vacant Land	Partial	777
109-080-02	Residential - Vacant Land	Partial	88,062
109-080-03	Residential - Improved Rural Residential	Slope Easement	0

Source: Relocation Impact Study, PAR Environmental Services, Inc. 2009 (PAR Environmental Services 2009b)

Table 8. Preliminary Non-Residential Property Right-of-Way Acquisition

APN	Type of Property	Type of Acquisition	Total ROW Acquisition (square feet)
070-250-13	Commercial - Childcare Center	Partial	3,759
070-250-58	Place of Worship	Partial	3,859
070-270-29	Commercial - Vacant Land	Partial	71,396
070-270-31	Commercial - Office	Partial	1,658
070-270-32	Commercial - Vacant Land	Partial	1,546
090-430-42	Commercial - Vacant Land	Slope Easement	0
109-040-33	Commercial - Retail Store	Partial	1,377
109-040-37	Commercial - Improved Commercial	Partial	1,343
109-040-39	Commercial - Retail Store	Partial	9,572
109-040-40	Commercial - Improved Commercial	Partial	11,410
109-040-71	Industrial - Improved Industrial Property	Partial	790
109-080-01	Commercial - Vacant Land	Partial	25,104

Source: Community Impact Assessment Addendum, Dokken Engineering 2024 (Dokken Engineering 2024a)

Table 9. Build Alternative Preliminary Right-of-Way Impacts

Partial Acquisition Properties Impacted	Area (acres)	Total Properties Impacted
19	6.19	19

No-Build Alternative

Under the No-Build Alternative, there would be no partial or full property acquisitions. No residents would require relocation advisory assistance.

Temporary Impacts

Temporary construction easements would be required for construction. After project completion, temporary construction easements would return to pre-existing conditions.

Avoidance, Minimization, and/or Mitigation Measures

The measure described below would ensure there would be no adverse impacts to relocations and real property acquisition.

RLC-1: Right of way will be acquired in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, and property owners will receive just compensation and fair market value for their property.

Utilities/Emergency Services

Affected Environment

Utilities and emergency services have been analyzed as part of the CIA for the project (PAR Environmental Services, Inc. 2009a). In 2024, an addendum to the CIA was prepared by Dokken Engineering, (Dokken Engineering 2024a) which verified that the findings and conclusions described in the 2009 CIA are still valid. Discussion in the following sections summarizes the utilities and emergency services section in the CIA and CIA Addendum that was prepared for the proposed project in 2009 and 2024, respectively.

Utilities

El Dorado Irrigation District (EID) provides drinking water to homes, schools and businesses throughout the county. The Irrigation District is also responsible for providing recycled water for backyards and public landscapes. Water in the project area is received from Jenkinson Lake Reservoir, providing 20,920 acre-feet per year. The reservoir is located south of Pollock Pines in the Cosumnes River basin. This water supply is treated at the Reservoir A water treatment plant in Pollock Pines (EID 2025).

The public wastewater authority that serves the project area is EID. The system is divided into two larger shed areas; El Dorado Hills and Deer Creek, in addition to two smaller sheds; Gold Ridge and Camino Heights. The system has approximately 402 miles of gravity pipelines, 54 miles of force mains, 8,566 maintenance holes, 60 lift stations, and 23,889 sewer service laterals, which total 191 miles. The total system has approximately 647 miles of collection system pipeline owned and maintained by EID (EID 2025).

PG&E provides the area with electric and natural gas services. There are existing electrical lines along the west side of Ponderosa Road, the south side of Durock Road and Mother Lode Drive, and across U.S. 50.

AT&T provides the area with internet, phone, TV, and wireless services. Fiber optic lines run underground along the north side of North Shingle Road and through the Ponderosa Overcrossing. Fiber optic vaults are located at the intersection of Ponderosa Road and North Shingle Road.

Comcast provides the area with cable services. Cable lines exist on the PG&E poles mentioned above.

At this time, unforeseen utility conflicts beyond what has been already identified are not anticipated. However, unexpected utility discoveries can occur during construction, especially in older corridors or areas with limited utility record information. Coordination with utility owners would continue to minimize the potential to discover unknown utilities. Should any unforeseen utilities be encountered, the project team would follow standard Caltrans protocols for handling such discoveries.

Emergency Services

The project area is within the El Dorado County Fire District and is served by Station 28, which is responsible for the communities of Shingle Springs, South Cameron Estates, Crazy Horse and Red Hawk Casino. The station is located within the project area at 3860 Ponderosa Road. Additionally, the project area is served by the El Dorado County Sheriff's Office whose headquarters is located in Placerville at 200 Industrial Drive.

Environmental Consequences

Utilities

Build Alternative

PG&E facilities impacted by the Build Alternative include the overhead lines along Ponderosa Road and Wild Chaparral Drive, as well as various poles and overhead spans requiring relocation near the Mother Lode Drive/South Shingle Road intersection. PG&E overhead distribution lines may be placed underground pursuant to formation of an Underground Utility District per California Public Utilities Commission (PUC) Rule 20A or relocated to accommodate widening of Ponderosa Road.

AT&T owns and operates a fiberoptic facility that crosses under U.S. 50 east of the interchange and travels along the north side of the existing North Shingle Road alignment. The Build Alternative would impact this facility. To accommodate the proposed improvement, the fiberoptic lines would be re-routed along Mother Lode Drive in existing AT&T underground facilities, and through the widened Ponderosa Road Overcrossing structure. This line would then reconnect to existing AT&T facilities north of the interchange near the Wild Chaparral Drive/Ponderosa Road intersection.

Comcast facilities impacted by the Build Alternative include overhead cables on shared poles with PG&E along Ponderosa Road. An Underground Utility District has been established for this area and for the project, pending the availability of Rule 20A funds at the time of construction. As a result, these facilities, along with PG&E overhead distribution lines, would be placed underground in accordance with PUC Rule 20A or relocated as necessary to accommodate the widening of Ponderosa Road.

The Build Alternative would also potentially impact an EID 6-inch sewer line and 12-inch water line in Durock Road. The horizontal and vertical alignment of Durock Road would be modified, creating a potential need for relocation depending on depth of these facilities.

In accordance with EID's Five-year Capital Improvement Program, EID staff has been directed to streamline contracting procedures with the County of El Dorado for joint agencies projects. As such, as part of the proposed project, EID proposes to install a new 20-inch sewer force main within the realigned portion of Durock Road. This new force main and associated appurtenances (such as air relief valves, blow-offs, and valves) would replace an existing 12-inch force main and appurtenances that are located in a private easement to the east of the project. The existing force main would be abandoned in place as part of the project. The new 20-inch sewer force main would reconnect to the existing 20-inch force mains to the west and east of the project that were recently replaced by previous EID projects. The new section of force main would be located wholly within the physical project limits and would be completed during the term of the project. EID also has other existing force mains and water lines within the project limits. If impacted by the project, these utilities and related appurtenances would be relocated to make way for the project.

In addition to the impacts to PG&E facilities described above, the Build Alternative may impact overhead electrical lines near the proposed Durock Road realignment. This realignment would require moving several overhead spans carrying both high voltage (60 kilovolt [kV]) transmission lines and distribution lines (21kV). Because the 21kV lines are routed underground to feed multiple residences and businesses adjacent to Durock Road, the overhead 21kV lines impacted by the proposed realignment may also be placed underground (pursuant to the Underground Utility District per PUC Rule 20A) or relocated to maintain this service. The 60kV poles and lines would remain overhead; however, several poles would require relocation to accommodate the proposed road realignment.

No-Build Alternative

Under the No-Build Alternative, the existing condition would not change; therefore, there would be no utility improvements or relocations within the study area.

Emergency Services

Build Alternative

The proposed project would have no adverse effects on emergency response planning, emergency access and risk exposure. Rather, the increased capacity along U.S. 50 ramps and local roads and increased spacing between intersections provided by the project would relieve traffic congestion and allow for faster emergency response times. Project features, such as the addition of sidewalks, bike lanes and removing free-rights at the on- and off-ramps, would improve safety for pedestrians and bicyclists.

No-Build Alternative

Under the No-Build Alternative, the existing condition would not change and would therefore have no effect on emergency services.

Temporary Impacts

Utilities that are impacted due to construction of the proposed project would be placed underground or relocated. Significant interruptions to service for residences or businesses during utility relocations are not anticipated. However, brief, planned outages may be necessary to complete tie-ins or cut-overs. Per UTL/ES-1, coordination with utility companies would be required to minimize impacts. Coordination with utility companies would include early identification of conflicts, confirmation of existing utility locations through potholing, and the development of relocation plans that avoid impacts to critical services. Ongoing communication with utility providers would be essential throughout design and construction to ensure timely relocation and maintain service continuity.

Traffic congestion and delays can occur during construction and can result in adverse effects; however, these effects would be avoided through standard construction period traffic management planning that includes timely notification of any road closures and detours to police and fire departments, the California Highway Patrol and other emergency service providers (UTL/ES-2 and UTL/ES-3).

Avoidance, Minimization, and/or Mitigation Measures

Construction of the Build Alternative and ROW acquisition would require the utility facilities within the project limits to be placed underground or relocated. A more detailed study would be conducted during the design phase of the project. In addition, the following measure would apply prior to and during construction.

UTL/ES-1: To avoid and minimize interruptions of service to utility customers, a series of coordination letters will be sent to all impacted utility companies to identify utilities within the proposed project. Letters will indicate where utility relocations are to be performed and the required time to relocate them. Design plans will be sent to involved utility owners during the project development phase. Meetings will be arranged with utility companies as necessary to discuss impacts and relocation plans.

UTL/ES-2: A Transportation Management Plan will be prepared. It will be ensured that there is appropriately designed access for emergency services onto all roads involved in the proposed project. The Transportation Management Plan will be provided to emergency public services (including fire, police, and hospital facilities).

UTL/ES-3: Emergency public services, local law enforcement agencies, and local businesses will be notified of the proposed project and of any temporary lane closures one month before construction begins.

Transportation

Regulatory Setting

Caltrans, as assigned by the FHWA, directs that full consideration should be given to the safe accommodation of all users of the highway during the development of Federal-aid highway projects (23 CFR 652).

The FHWA has enacted regulations for the implementation of the 1990 Americans with Disabilities Act (ADA), including a commitment to build transportation facilities that provide equal access for all persons. These regulations require application of the ADA requirements to Federal-aid projects, including Transportation Enhancement Activities.

Affected Environment

A Traffic Report was prepared by Fehr & Peers in 2009 (Fehr & Peers 2009). Given the time that elapsed since this study was completed, an updated Transportation Analysis Report (TAR) was prepared by Fehr & Peers in 2024 (Fehr & Peers 2024).

The study area includes U.S. 50 from Cameron Park Drive to Shingle Springs Drive and five intersections on the Ponderosa Road/South Shingle Road corridor. The existing study intersections are listed below.

1. Ponderosa Road/North Shingle Road/Wild Chaparral Drive
2. Ponderosa Road/U.S. 50 Westbound Ramps
3. South Shingle Road/U.S. 50 Eastbound Ramps/Mother Lode Drive
4. South Shingle Road/Durock Road
5. South Shingle Road/Sunset Lane

Figure 7 below illustrates the existing traffic study intersection locations.

Figure 7. Existing Traffic Study Intersections

With implementation of the Build Alternative, the study intersections are modified to the following:

1. Ponderosa Road/North Shingle Road
2. Ponderosa Road/Wild Chaparral Drive/U.S. 50 Westbound Ramps
3. South Shingle Road/Mother Lode Drive/U.S. 50 Eastbound Ramps
4. South Shingle Road/Durock Road/Sunset Lane

Figure 8 below illustrates the Traffic Study Intersections under the Build Alternative.

Figure 8. Proposed Traffic Intersections Under the Build Alternative

Existing Roadway Facilities

Ponderosa Road is a north/south arterial road that connects U.S. 50 on the south to Green Valley Road on the north and terminates near Dry Creek in Rescue. North of the interchange area, land uses are primarily rural residential. Ponderosa High School is located at Ponderosa Road/Meder Road about three-quarters of a mile north of U.S. 50. In the study area, Ponderosa Road has two lanes in each direction that narrow to one lane in each direction further north. The posted speed is 40 mph.

South Shingle Road is a north/south arterial road that connects U.S. 50 on the north to Latrobe Road in Latrobe, continuing as a minor road to the Sacramento County line. At the study intersections, adjacent land uses are commercial and industrial. South of Sunset Lane, the land uses are primarily rural residential. South Shingle Road has two lanes in each direction adjacent to the interchange that narrow to one lane in each direction further south. The posted speed is 45 mph.

North Shingle Road is a north/south arterial road that connects U.S. 50 on the south to Green Valley Road in Rescue. A fitness center and church are located along the road within one-quarter mile of the interchange. Further north, the adjacent land uses are primarily rural residential. North Shingle Road has one lane in each direction and a posted speed of 50 mph.

Wild Chaparral Drive is a two-lane frontage road that extends along the north side of U.S. 50 for about 0.6 miles west of Ponderosa Road. The road provides access to various land uses including a car dealership, church, storage facility, and residential neighborhood.

Durock Road is an east/west arterial road that connects South Shingle Road to the east with Cameron Park Drive to the west. Adjacent land uses are a mix of commercial, industrial, and residential neighborhoods. The two-lane road has a posted speed of 45 mph.

Mother Lode Drive is an east/west arterial road that connects U.S. 50 at South Shingle Road to the west of U.S. 50 at Missouri Flat Road in Diamond Springs to the east. In the study area, adjacent land uses are primarily commercial including gas stations, a grocery store, auto parts store, and restaurants. This former alignment of U.S. 50 is a two lane road with a posted speed of 35 mph immediately east of the study intersections.

Sunset Lane is a north/south local road that connects South Shingle Road to the south to Mother Lode Drive to the north and continues north to provide access to various commercial properties adjacent to U.S. 50. This two lane road does not have posted speed limit signs.

U.S. 50 is a transcontinental highway that extends from West Sacramento, California, to Ocean City, Maryland. Within the study area, U.S. 50 serves commuter and commercial traffic in the Sacramento metropolitan area, and freight and recreational traffic between the Sacramento and Lake Tahoe regions. U.S. 50 transitions from a six-lane freeway (three lanes in each direction) with high occupancy vehicle (HOV) lanes east of Cameron Park Drive to a four lane freeway (two lanes in each direction) to the west. An eastbound auxiliary lane exists between Shingle Springs Drive and Red Hawk Parkway.

The U.S. 50/Cameron Park interchange has a tight diamond (Type L-1) configuration in the eastbound direction and a partial cloverleaf (Type L-9) configuration in the westbound direction. The U.S. 50/Ponderosa Road/South Shingle Road interchange has a partial cloverleaf (Type L-7) in the eastbound direction and a partial cloverleaf (Type L-9) in the westbound direction. The U.S. 50/Shingle Springs Drive interchange has a tight diamond (Type L-1) for both directions. In the study area, ramp meters exist and operate only at Ponderosa Road/South Shingle Road.

Existing Bicycle and Pedestrian Facilities

Bicycle facilities are limited in the study area. No bicycle route is provided across U.S. 50. There is a Class II on-street bicycle lane on Mother Lode Drive that extends from South Shingle Road about three-fourths of a mile east to North Star Drive. North Shingle Road, Wild Chaparral Drive, Ponderosa Road (north of North Shingle Road and South Shingle Road south of Durock Road) have paved shoulders in the study area, but are not marked as bicycle lanes.

Pedestrian facilities are limited in the study area. A sidewalk is provided on the west side of the Ponderosa Road/South Shingle Road overcrossing of U.S. 50. The pedestrian path is a mix of asphalt and concrete paving that connects the southwest corner of Ponderosa Road/Wild Chaparral Drive to the northwest corner of the South Shingle Road/U.S. 50 eastbound ramps. Uncontrolled, one-lane crossings exist at the southbound to westbound and eastbound on-ramps.

A sidewalk is provided along the frontage of the gas station at the southeast corner of South Shingle Road/U.S. 50 eastbound ramps. No other sidewalks exist in the study area. This includes the frontages of the three Park-and-Ride lots.

Crosswalks and pedestrian signal phases are provided at some of the study intersections. At Ponderosa Road/North Shingle Road, crosswalks are provided on the west, north, and east legs. No crosswalks are provided at Ponderosa Road/U.S. 50 westbound ramps. The South Shingle Road/U.S. 50 eastbound ramps intersection has crosswalks for the west, south, and east legs. The South Shingle Road/Durock Road intersection has crosswalks for the west and south legs. Although the gas station driveway has a sidewalk, no pedestrian phase is provided to cross the driveway. No pedestrian facilities are provided at the South Shingle Road/Sunset Lane intersection.

Environmental Consequences

Intersection Operations

Existing Conditions

Under existing conditions (Fehr & Peers 2024), the closely-spaced signalized intersections at the U.S. 50/Ponderosa Road interchange experience localized congestion that causes queues to extend between the study intersections. The Ponderosa Road/North Shingle Road/Wild Chaparral Drive intersection operates with LOS E during both peak hours (Table 10 below). Peak hour queues exist in the southbound and westbound approaches to this intersection. The next most critical intersection is the South Shingle Road/Mother Lode Drive/U.S. 50 eastbound ramp intersection, which has LOS D conditions during both peak hours (Table 10). The eastbound off-ramp queue at this intersection was observed to extend to the U.S. 50 mainline under both peak hours. PM peak hour queues are also long on westbound Mother Lode Drive and eastbound Durock Road.

Build Alternative

With implementation of the Build Alternative, intersection operations would improve to LOS D or better during both peak hours by horizon year 2049. (Table 10). South Shingle Road/Sunset Lane intersection (shown in row 5) would be combined into the South Shingle Road/Durock intersection (shown in row 4) resulting in a LOS of B or better.

No-Build Alternative

Looking at horizon year 2049 conditions under the No-Build Alternative, intersection operations would further deteriorate to LOS F conditions at most study intersections during both peak hours (Table 10). The local road congestion would result in an eastbound off-ramp queue that would extend onto the U.S. 50 mainline during the AM peak period and a westbound off-ramp queue that would extend to the U.S. 50 mainline during the PM peak period. The resulting congestion would result in serving at most 82 percent of the peak hour demand volume.

Table 10. Intersection Operations under Existing, No-Build and Build Conditions

Intersection			No-Build (2049)				
						AM	PM
1. Ponderosa Rd/North Shingle Rd/Wild Chaparral Dr	E	E	**F**	**F**	1. Ponderosa Rd/North Shingle Rd	B	A
2. Ponderosa Rd/U.S. 50 Westbound Ramps	D	C	E	**F**	2. Ponderosa Rd/ Wild Chaparral Dr/U.S. 50 Westbound Ramps	B	C
3. South Shingle Rd/Mother Lode Dr/U.S. 50 Eastbound Ramps	D	D	**F**	**F**	3. South Shingle Rd/Mother Lode Dr/U.S. 50 Eastbound Ramps	D	D
4. South Shingle Rd/Durock Rd	C	D	**F**	**F**	4. South Shingle Rd/Durock Rd/Sunset Ln	A	B
5. South Shingle Rd/Sunset Ln	A	A	**F**	**F**	-	-	-

Source: Fehr & Peers 2024 Transportation Analysis Report

Freeway Operations

Existing Conditions

Under existing conditions (2024) (Tables 11 and 12 below), all locations have a LOS C or better during the AM peak hour in the eastbound direction (see Table 11 for the eastbound direction and Table 12 for the westbound direction). During the PM peak hour in the eastbound direction, the South Shingle Road off-ramp and the immediate upstream basic segment operate at LOS D and all other locations have LOS C or better. In the westbound direction, U.S. 50 operates with LOS C or better conditions during the AM peak hour. The segments with LOS C are all downstream of the on-ramp from southbound Ponderosa Road. During the PM peak hour, the Cameron Park Drive off-ramp has LOS D, and all other locations have LOS C or better.

Build Alternative

For the Build Alternative, eastbound U.S. 50 would have LOS C or better conditions for both peak hours (see Table 11 below for more information). The Build Alternative would have similar AM peak hour performance although the segment at the Cameron Park Drive undercrossing would have LOS D conditions due to the higher volume served at the Ponderosa Road interchange. During the PM peak hour, two bottlenecks would be present. The upstream location (moving against existing traffic from multiple locations) at the northbound Ponderosa Road on-ramp would cause congestion back to the Ponderosa Road off-ramp. The downstream location would be at the southbound Cameron Park Drive on-ramp, and congestion would extend back to the Cameron Park Drive off-ramp. The extent and duration of congestion would be smaller for the Build Alternative compared to the No-Build Alternative (see Table 12 for more information).

No-Build Alternative

For eastbound U.S. 50, the No-Build Alternative would have a queue on the South Shingle Road off-ramp that would back up into the auxiliary lane during the AM peak hour. This would result in LOS E conditions at the South Shingle Road off-ramp. PM peak hour conditions would be LOS C or better.

In the westbound direction, the No-Build Alternative would have LOS C or better conditions during the AM peak hour. The PM peak hour would have a bottleneck at the Ponderosa Road off-ramp caused by queuing from the ramp terminal intersection. The bottleneck would cause congested conditions that would extend upstream beyond Shingle Springs Drive. Downstream, the merge segment at the on-ramp from northbound Cameron Park Drive would have LOS E conditions.

Table 11. Freeway Operations Eastbound U.S. 50 under Existing, No-Build, and Build Conditions

Freeway Segment	Facility	Existing (2024)		No-Build (2049)			
		AM	PM	AM	PM	AM	PM
Cameron Park Dr Off-ramp	Diverge (Basic)	B	C	C	C	C	C
Cameron Park Dr Off- to On-ramp	Basic	B	C	C	C	C	C
Cameron Park Dr On-ramp	Merge	C	C	C	C	C	C
Cameron Park Dr to South Shingle Rd	Basic	C	D	C	C	C	C
South Shingle Rd Off-ramp	Diverge	C	D	E	C	C	C
South Shingle Rd Off- to On-ramp	Basic	B	B	C	B	C	B
South Shingle Rd On-ramp	Merge	B	B	C	B	C	B
South Shingle Rd to Shingle Springs Dr	Basic	B	C	C	C	C	C
Shingle Springs Dr Off-ramp	Diverge	B	C	C	C	C	C
Shingle Springs Dr Off- to On-ramp	Basic	B	C	C	B	C	B
Shingle Springs Dr to Red Hawk Pkwy	Weave	B	B	B	B	B	B

Source: Fehr & Peers 2024 Transportation Analysis Report

Table 12. Freeway Operations Westbound U.S. 50 under Existing, No-Build, and Build Conditions

Freeway Segment	Facility	Existing (2024)		No-Build (2049)			
							PM
Shingle Springs Dr Off-ramp	Diverge	B	B	C	**F**	C	D
Shingle Springs Dr Off- to On-ramp	Basic	B	B	C	**F**	B	C
Shingle Springs Dr On-ramp	Merge	B	B	B	**F**	B	D
Shingle Springs Dr to Ponderosa Rd	Basic	B	C	C	**F**	C	E
Ponderosa Rd Off-ramp	Diverge	B	C	C	**F**	C	**F**
Ponderosa Rd Off- to Northbound On-ramp	Basic	B	B	C	D	B	**F**
Ponderosa Rd Northbound On-ramp	Merge	B	B	C	D	C	**F**
Ponderosa Rd Southbound On-ramp	Merge	C	C	C	C	C	D
Ponderosa Rd to Cameron Park Dr	Basic	C	C	B	C	C	E
Cameron Park Dr Off-ramp	Diverge	C	D	B	C	C	**F**
Cameron Park Dr Off- to Northbound On-ramp	Basic	C	C	C	D	C	**F**
Cameron Park Dr Northbound On-ramp	Merge	B	B	C	E	C	**F**
HOV Lane Add to Cameron Park Dr SB On-ramp	Basic	C	C	C	D	D	**F**
Cameron Park Dr Southbound On-ramp	Merge	C	B	B	B	B	B

Source: Fehr & Peers 2024 Transportation Analysis Report

Roadway Safety

Build Alternative

The Build Alternative would reduce congestion and increase intersection spacing, both of which would reduce collision rates. The northbound to westbound loop on-ramp would be realigned to have a larger radius and higher design speed, which may lead to fewer vehicles leaving the roadway. The Build Alternative would also provide a pedestrian pathway via sidewalks on both sides of the U.S. 50 Overcrossing. Signalized crosswalks would be provided for three of the four legs at

the U.S. 50 Westbound ramps intersection and for all four legs at the U.S. 50 Eastbound ramps intersection. Class II bicycle lanes would be provided for north-south movements across the interchange so that bicycles would no longer have to share a lane with motor vehicles.

The Build Alternative would provide roundabout control at the North Shingle Road/Ponderosa Road and Durock Road/Sunset Lane intersections. Roundabouts have a lower collision rate than signalized intersections. Roundabouts reduce conflict points and simplify the driving task since drivers need yield to only one direction at the intersection. The slower speeds at roundabouts mean that collisions are less severe when they do happen, especially for vulnerable travelers such as pedestrians and bicyclists.

No-Build Alternative

Under the No-Build Alternative, collision rates would be expected to be similar to existing conditions. With the forecasted increase in traffic volumes, the number of collisions would increase. The eastbound on-ramp, which has a higher than average fatal and injury collision rate, would continue to experience the same collision rate. The exposure for pedestrians and bicyclists would also remain the same. Pedestrians would continue to use the 5-foot-wide sidewalk on the west side of the U.S. 50 overcrossing, and bicyclists would continue to share the roadway with motor vehicles at the U.S. 50 overcrossing.

Bicycle and Pedestrian Facilities

Build Alternative

The Build Alternative would construct sidewalks on both sides of Ponderosa Road and South Shingle Road between North Shingle Road and Durock Road/Sunset Lane. Sidewalks would be provided on one side of the road for the realigned sections of North Shingle Road and Durock Road. Signalized crosswalks would be provided for three of the four legs at the U.S. 50 Westbound ramps intersection and for all four legs at the U.S. 50 Eastbound ramps intersection. The Build Alternative adds a crosswalk across the westbound off-ramp and across the north leg of the U.S. 50 Eastbound ramps intersection. The roundabouts at North Shingle Road/Ponderosa Road and Durock Road/Sunset Lane would provide pedestrian

crossings of all intersection legs and bypass lanes. All facilities would be constructed to meet current ADA standards, per TRAF-1.

No-Build Alternative

Under the No-Build Alternative, bicycle and pedestrian facilities would not be constructed and existing conditions would remain.

Temporary Impacts

Build Alternative

During construction, vehicle, bicycle and pedestrian access may be affected. Bicycle and pedestrian access would be maintained on at least one side of the roadway. As for vehicular access, through lanes would be maintained where possible and appropriate detour routes would be made when necessary. Some delays on these road sections may occur. The project would include preparation and implementation of a Transportation Management Plan (TMP) (**TRAF-3**). The purpose of the TMP is to describe the location, and discuss various strategies and alternatives that would be employed during construction to alleviate work-related traffic delays. The goal and objective of the TMP is to maintain traffic flow throughout the project area, provide a safe environment for both the work force and motorists, and to minimize impacts to local businesses and residences. The TMP could include public information communications such as mailers, handouts, brochures, and press releases; information for motorists from changeable message signs or temporary signs; an Incident Management Plan that would define parameters and responsibilities to respond to incidents on and adjacent to the construction corridor; construction strategies, such as traffic plans; and information regarding construction staging, lane modifications (e.g., reduced lane widths or lane closures); utilizing a Demand Management Plan to remove traffic from existing routes, such as using expanded Park-and-Ride lots, transit service or transit and ride share incentives; and the use of alternate routes/detours.

With the implementation of TRAF-2 and TRAF-3 (indicated below), impacts related to traffic would be temporary and not considered significant.

No-Build Alternative

Under the No-Build Alternative, there would be no construction and no temporary impacts to traffic.

Avoidance, Minimization, and/or Mitigation Measures

To ensure there are no negative effects on existing transportation, the Build Alternative would develop and implement a TMP (Measure **UTL/ES-2**). If the project is constructed in phases, all applicable avoidance, minimization, and mitigation measures would be implemented during each construction phase. The following measures would be implemented to minimize traffic impacts in the project vicinity

TRAF-1: All existing non-motorized facilities would be maintained to ADA standards.

TRAF-2: Prior to the start of construction, to provide a point of contact with residents, businesses, and public safety agencies that will be affected by construction, the County of El Dorado will establish a public outreach/community liaison program which will utilize electronic and print media, changeable message signs, and other means of public outreach as necessary.

TRAF-3: To minimize the temporary effects to travelers, pedestrians, and bicyclists, a Transportation Management Plan will be prepared. Such strategies might include public information campaigns, motorist information, incident management, and inclusion of night work for construction activities.

Visual/Aesthetics

Regulatory Setting

The NEPA of 1969, as amended, establishes that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and *aesthetically* (emphasis added) and culturally pleasing surroundings (42 USC 4331[b][2]). To further emphasize this point, the FHWA, in its implementation of NEPA (23 USC 109[h]), directs that final decisions on projects are to be made in the best overall public interest taking into account adverse environmental impacts including, among others, the destruction or disruption of aesthetic values.

State Scenic Highway

The State Scenic Highway Program was enacted in 1963 to protect and enhance California's natural scenic beauty by identifying sections of the State highway system, in conjunction with adjacent scenic corridors, that require special conservation treatment. A scenic corridor is land that contains scenic and natural features visible from, adjacent to, and outside the highway ROW. The boundary of the corridor is determined by topography, vegetation, viewing distance, and/or jurisdictional lines. In addition to adding to the pleasure of residents, the program encourages the growth of recreation and tourism industries as an important sector of the State's economy. Caltrans is responsible for managing the State Scenic Highway Program by providing guidance to local government agencies, community organizations, and citizens that are pursuing the official designation of a State Scenic Highway (Dokken Engineering 2024d).

State Scenic Highway Designation

The project area does not contain or have views of any state scenic highways (Dokken Engineering 2024d). U.S. 50, parallel to the proposed Project, is not eligible for designation as a State Scenic Highway in El Dorado County.

Affected Environment

Visual/aesthetics were analyzed as part of the Visual Impact Assessment (VIA) for the project (PAR Environmental Services, Inc. 2011b). In 2024, the VIA was updated by Dokken Engineering (Dokken Engineering 2024d). Discussion in the following sections summarizes discussions in the VIA.

The assessment included a review of scenic goals and policies for the county of El Dorado. Visual elements of the proposed project were evaluated in relation to the existing visual character in the vicinity of the project area. Field surveys conducted on March 30 and April 27, 2009, and again on June 24, 25, and July 7, 2015, were used to evaluate the visual resource impacts of the project. Scenic resources in the project area primarily consist of Blue oak woodlands. Oaks were measured to determine diameter at breast height (dbh) and recorded. General site and aerial photographs were also used to evaluate the visual character of the proposed project and assess changes to visual resources.

Viewpoints of the project area are located along existing roadways, from parking areas, and from the interiors of buildings. Highway travelers and highway neighbors may observe changes to the visual character of the project area. Travelers include commuters, truck-drivers, and others driving to commercial centers and residential communities within the interchange vicinity. Views from the roadway would be seen in passing, since viewers along the roadway would be traveling in automobiles at speeds ranging from signal controlled intersections to 65 miles per hour on U.S. 50. Neighbors would include observers from adjacent land uses such as shopping centers, car dealerships, office buildings, and residential areas. These views vary greatly by location due to the variances of the ground elevation as compared to the highway and the amount of vegetation screening direct views of the highway mainline from the surrounding area. Key viewpoint locations and directions are shown below in Figure 9 using the green arrows

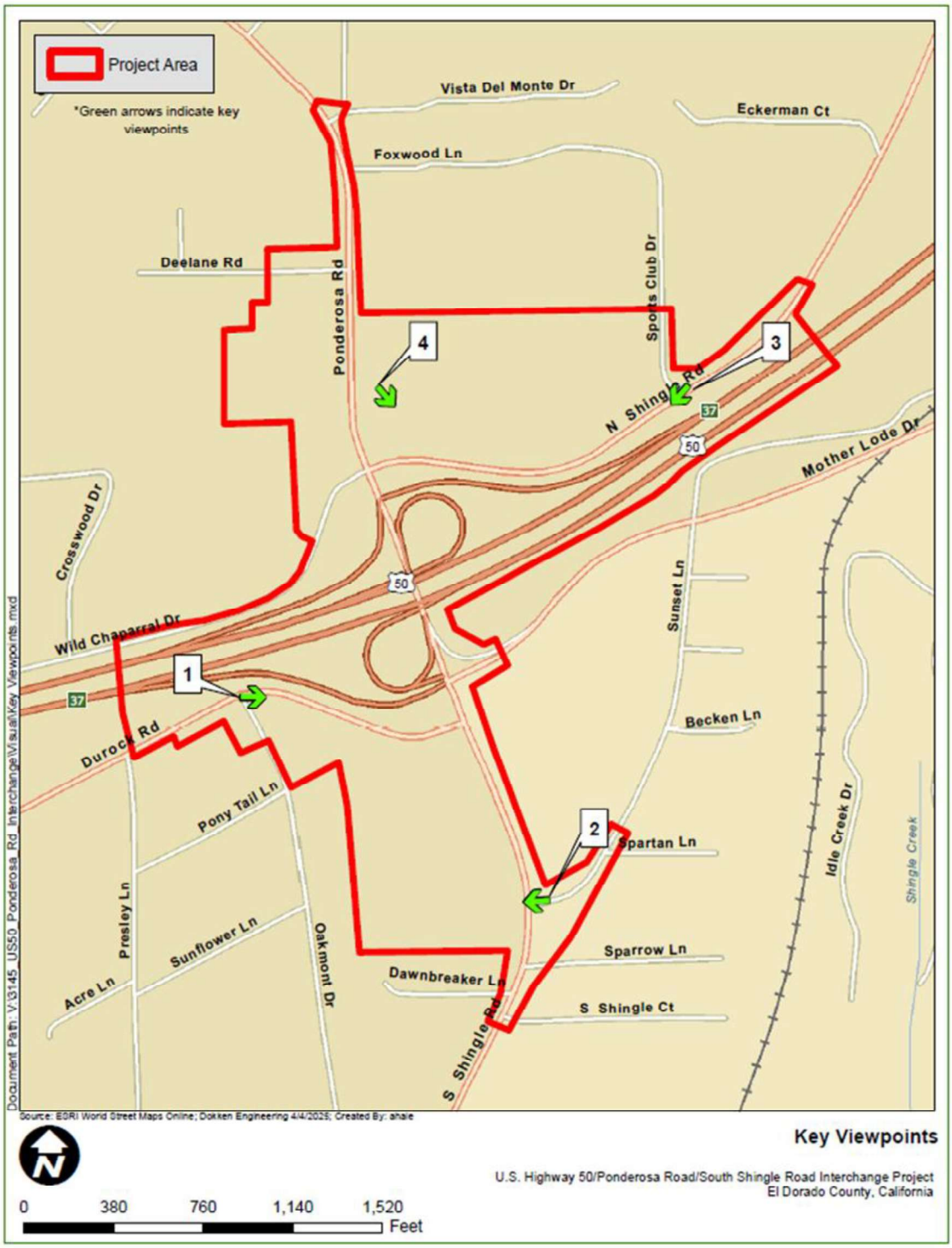

Figure 9. Key Viewpoints

The existing Ponderosa Interchange Overcrossing is a three-lane overpass surrounded by a lightly developed urban environment (Figure 10). The overcrossing was constructed in 1969. Presently, Durock Road, North Shingle Road, Mother Lode Drive and Wild Chaparral Drive are adjacent to the U.S. 50/Ponderosa Interchange. The area surrounding the interchange is characterized by a mix of vacant, residential, and commercial land uses. Prominent features in the area include car dealerships, retail shopping centers, and Park-and-Ride facilities. Overall, the visual character and quality of the area is defined by the presence of U.S. 50 and commercial development along the interchange.

Dominant native vegetation communities exist within the project area. There are limited strands of blue oak woodland in the southwest, northwest and northeast quadrants of the project area. The oak woodland is dominated by blue oaks, live oaks, foothill pine and manzanita. Patches of chamise chaparral are located in the northeast quadrant. A small riparian area is located in the northwest quadrant. Additionally, there is non-native vegetation within the project area, including landscaping and ruderal vegetation in developed areas. Annual grasslands are present in areas where soil has been disturbed by development, such as cleared fields, leveled and fallow building sites, and within the interchange cloverleaf islands.

Figure 10. Existing Ponderosa Overcrossing

Environmental Consequences

Ponderosa Road U.S. 50 Overcrossing Improvements

Completion of the proposed project would introduce a permanent physical change through construction of a 5-lane overcrossing to replace the existing 3-lane structure, exposing travelers to altered external bridge treatments and a widened overcrossing. The visual character and quality of the area is defined by the presence of U.S. 50 and commercial development along the interchange. Although additional pavement would be introduced, this would be minor compared to the urban development present in the area. To minimize the visual impacts of the widened overcrossing, new external treatments would match the theme of new interchanges within the El Dorado County U.S. 50 corridor; specifically, the El Dorado Hills Boulevard Interchange and the Missouri Flat Road Interchange (Figure 11), as specified in avoidance and minimization measure VIS-1 (further below).

The U.S. 50 Overcrossing improvements would result in a low to moderate change in the visual character and quality of the area.

Figure 11. Example of Similar Bridge Treatment, Photo of Existing Missouri Flat Interchange

Ponderosa Road U.S. 50 On- and Off-Ramp Improvements

Completion of the proposed project would introduce a permanent physical change through widening the on- and off-ramps at the interchange, introducing more pavement within the project area. The visual character and quality of the area is defined by the presence of U.S. 50 and commercial development along the interchange. Although additional pavement would be introduced, this would be minor compared to the urban development present in the area. These changes would be consistent with the existing character of the area. The U.S. 50 on- and off-ramp improvements would result in a low to moderate change in the visual character and quality of the area. Viewer exposure would be brief and peripheral due to high travel speeds.

Resident commuters may notice the widened on- and off-ramps; however, they would be of similar construction. Modification of the on- and off- ramps would result in low to moderate visual impact and is not expected to result in a substantial adverse response to the typical viewer.

Key Viewpoints

Four key viewpoints were studied to identify the visual impacts to scenic resources (e.g., oak woodland) on three viewer groups: highway users, businesses and local drivers (Figure 9). It is expected that street users and businesses would have a higher degree of awareness of visual changes in the project area due to the slower speed of travel and familiarity with the area.

Viewpoint #1 - View of southeast-bound Durock Road from the Intersection of Durock Road and Oakmont Drive

This view is from the motorist's perspective along the short segment of Durock Road after it bends from northeast to southeast-bound. Commercial development is visible on the south side of the road and U.S. 50 on the north side is generally not visible due to topography. Vegetation in the area consists of limited landscaping (Figure 12).

Figure 12. Existing Key Viewpoint #1

Completion of the proposed project would introduce a permanent physical change through construction of the realignment of Durock Road (Figure 13 below). From this viewpoint, the visual character and quality of the area is defined by the presence of U.S. 50 and commercial development along the interchange. Commercial development is visible to the south and U.S. 50 is somewhat visible on the north side. Vegetation consists of limited landscaping. In this area, adjacent commercial development does not present views with high visual quality. The urban form is a mixture of low buildings, signs of varying heights and sizes, and parking lots. No unique architectural or urban forms would draw the eye of the passing motorist. The Durock Road realignment would result in a low change in the visual character of the project site and would ultimately be considered consistent with the existing character due to the urban setting of the area. Viewer exposure from adjacent businesses is not considered sensitive. Additionally, residents in the area do not have views of this viewpoint.

The visual impact of the Durock Road realignment is considered low to moderate and is not expected to result in a substantial adverse response to the typical viewer. Changes as a result of the Durock Road realignment would be consistent with the existing character; therefore, impacts would not be significant.

Figure 13. Proposed Key Viewpoint #1

Viewpoint #2 - View of northwest-bound Durock Road from the Intersection of Sunset Lane and South Shingle Road

This view shows the existing Sunset Lane and South Shingle Road in the foreground. The background depicts the portion of the oak woodland that would be replaced by project improvements (Figure 14).

Figure 14. Existing Key Viewpoint #2

Completion of the proposed project would introduce a permanent physical change through construction of the realignment of Durock Road. Proposed Key Viewpoint #2 shows the existing Sunset Lane and South Shingle Road in the foreground. U.S. 50 and the interchange are not visible due to topography. The background depicts the portion of the oak woodland that would be replaced by project improvements (Figure 15). From this viewpoint, the existing character is developed with residential streets lined with oak trees (which are considered a scenic resource) and native grasses.

Figure 15. Proposed Key Viewpoint #2

On the west side of South Shingle Road, 2.68 acres out of 9.56 acres of oak woodland would be affected. Even though some oak woodland would be replaced by the realigned roadway, two large stands (4.6 acres and 2.28 acres) would remain on either side of the realignment.

Although a majority of oak woodland habitat would remain intact, the Durock Road realignment would increase pavement in the area and would give this viewpoint a more urban appearance. This would result in a moderately-high change in the visual character of the area. Measures BIO-4 and BIO-5 (indicated in the Natural Communities section) would be implemented to minimize impacts to the existing visual character. Viewer sensitivity is high at this viewpoint since residences are nearby and oak woodland habitat (which is considered a scenic resource) is present. Viewer response is anticipated to be moderately high due to the removal of oak trees.

With implementation of BIO-4 and BIO-5, these changes, as a result of the Durock Road realignment, would be consistent with the existing character of the area; therefore, impacts would not be significant.

Viewpoint #3 - View of Sports Club Drive and North Shingle Road

Completion of the project would introduce a permanent physical change through construction of the realignment of North Shingle Road. Viewpoint #3, located at the intersection of Sports Club Drive and North Shingle Road (Figure 16), shows the Sports Club driveway on the north side of the road and U.S. 50 along the south. The existing character of this area consists of mixed commercial and intermittent open space bisected with roads along a busy freeway. The open space area contains oak trees, which are considered a scenic resource. As the proposed realignment of North Shingle Road (Figure 17) bends northwest, some oak tree removal would occur. Of the 5.41 acres of existing oak woodland in this area (which is considered a scenic resource), 0.76 acres would be affected by this road realignment. Thus, a majority of existing trees would still remain on the north side of the road. Although additional pavement would be introduced, this would be minor compared to the urban development present from this viewpoint. The North Shingle Road realignment would result in a low to moderate visual impact to existing visual character. Measures BIO-4 and BIO-5 would be implemented to minimize impacts to the existing visual character.

Figure 16. Existing Key Viewpoint #3

Figure 17. Proposed Key Viewpoint #3

Viewer sensitivity from adjacent businesses and travelers is not considered high. Residents in the area do not have views of this viewpoint. Viewer response is anticipated to be low. The North Shingle Road realignment would result in a low to moderate visual impact and is not expected to result in a substantial adverse response to the typical viewer. With implementation of measures BIO-4 and BIO-5, these changes would be consistent with the existing character of the area; therefore, impacts would not be significant.

Viewpoint #4 - View of realigned southeast-bound North Shingle Road

This view is located approximately 500 feet east of Ponderosa Road, where the new North Shingle Road alignment would be placed. U.S. 50 and the commercial development on Motherlode Drive is visible in the background of the view. Vegetation in the viewpoint area is characterized by annual grassland and oak woodland. With the proposed realignment of North Shingle Road, some oak trees and native grasses removal would occur (Figures 18 and 19).

Figure 18. Existing Key Viewpoint #4

Figure 19. Proposed Key Viewpoint #4

The proposed project would introduce a permanent physical change through construction of the realignment of North Shingle Road. This view is located approximately 500 feet east of Ponderosa Road, where the new North Shingle Road alignment would be placed (Figure 19). U.S. 50 and the commercial development on Mother Lode Drive is visible in the background of the view. Vegetation is characterized by annual grassland and oak woodland. The existing character of this area is one of mixed commercial, office space, and intermittent open space bisected with roads along a busy freeway.

Similar to Viewpoint #3, minimal removal of trees is anticipated in this area. Of the 5.41 acres of existing oak woodland, 0.76 acres would be affected by this road realignment. Most of these trees and/or grassland would still remain on the north side of the road. Construction of this realignment would introduce pavement in the undeveloped open space area, however the existing commercial uses and U.S. 50 would still dominate visual character of the area. The North Shingle Road realignment would result in a low to moderate visual impact to existing visual character. Measures BIO-4 and BIO-5 would be implemented to minimize impacts to the existing visual character.

Viewer sensitivity from adjacent businesses, residents, and travelers is considered low due to the proximity to U.S. 50 and the interchange. Viewer response is anticipated to be low. The North Shingle Road realignment would result in a low to moderate visual impact and is not expected to result in a substantial adverse response to the typical viewer. With implementation of measures BIO-4 and BIO-5, these changes would be consistent with the existing character of the area; therefore, impacts would be considered not significant.

Light and Glare from Vehicles due to Realigned Roadways

The project would result in new motor vehicle usage on realigned Durock Road and North Shingle Road. Nighttime motor vehicle operation along Durock Road and North Shingle Road realignments, as well as the widened overpass, would increase and add intermittent lighting of adjacent areas from motor vehicle headlights. The Durock Road realignment is separated from residential to the south and west by distance and by existing oak tree canopy. The North Shingle Road realignment is separated from residential to the north and northwest by distance, oak tree canopy and office buildings.

The widened overpass is separated even further from the same factors to the north and south. These factors reduce the potential for headlight shine to residential properties. Lights on motor vehicles traveling on Durock Road and North Shingle Road would also be visible from U.S. 50; however, the alignment and elevation of the road is such that there would be no direct and continuous headlight shine to motorists traveling on U.S. 50.

Installation of additional intersection lighting would result in a new source of light that may be visible from certain locations; however, the potential for associated adverse light and glare impacts is low given the separation between lighting and residences. In addition, all streetlights are shielded so as not to spill onto adjacent sensitive areas. Although the project would introduce new light sources associated with motor vehicle lights and intersection lighting installation, these impacts would not be considered significant.

Construction Related Impacts

Project construction activities would result in the short-term presence of construction vehicles and equipment, grading ,and vegetation clearing along the North Shingle Road realignment and the Durock Road realignment, as well as the overpass widening. Storage of equipment and materials would occur at the proposed staging area. Construction activities and denuded/graded areas could also be visible from some residential areas north and northeast of the extension alignment. The presence of construction vehicles and equipment and grading activities would result in a low to moderate change in the visual character of the project site. These activities would be temporary and disturbed areas would be revegetated and not permanently disturbed. The temporary visual impact of construction activities is considered low to moderate and is not expected to result in a substantial adverse response to the typical viewer. As such, the visual impact of construction during the project would not be considered significant.

Avoidance, Minimization, and/or Mitigation Measures

The following measures to avoid or minimize visual impacts would be incorporated into the project as part of the environmental commitments to minimize visual impacts:

VIS-1: The new external treatments of the interchange will match the theme of new interchanges within the El Dorado County U.S. 50 corridor, specifically, the El Dorado Hills Boulevard Interchange and the Missouri Flat Road Interchange.

The project would also incorporate BIO-2, BIO-4, BIO-5, BIO-7, and BIO-8, as described in the Natural Communities section.

Cultural Resources

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 law, cultural resources that meet certain criteria of significance are referred to by various terms including "historic properties," "historic sites," and "traditional cultural properties." 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 CFR 800). On January 2, 2025, the First Amended Section 106 Programmatic Agreement (PA) among the FHWA, the ACHP, the California State Historic Preservation Officer (SHPO), and Caltrans went into effect for Caltrans projects, both state and local, with FHWA involvement (Caltrans 2025b). The PA implements the ACHP's regulations, 36 CFR 800, streamlining the Section 106 process and delegating certain responsibilities to Caltrans. The FHWA's responsibilities under the PA have been assigned to Caltrans as part of the Surface Transportation Project Delivery Program (23 United States Code [USC] 327).

Affected Environment

Efforts to identify cultural resources impacted by the project were first conducted in 2008. These efforts consisted of establishing an Area of Potential Effects (APE), conducting archival research, consulting with Native American tribes and organizations, consulting with historical societies, and conducting a pedestrian field survey within the study area. The archival research effort was directed toward identifying potential and previously recorded cultural resources within a one-quarter-mile radius of the project study limits and gathering pertinent data regarding indigenous, ethnographic, and historic land use and development of the project area. Several repositories were consulted during the effort including local historical societies and the California State Library. Records at the North Central Information Center (NCIC) of the California Historical Resources Information System were searched for information related to the project site. Native American consultation consisted of contacting the Native American Heritage Commission (NAHC) to conduct a search of the Sacred Lands File and to provide a list of tribes who may wish to consult on the project. Individuals and tribes provided by the NAHC were contacted by letter and telephone regarding ethnographic information, sacred sites, and concerns about project impacts to Native American resources. All cultural resource identification efforts and results were documented in a 2008 Historic Property Survey Report (HPSR) and 2008 Archaeological Survey Report (ASR) (PAR Environmental Services Inc. 2008). Additional consultation with the NAHC and Native American tribes was conducted in 2016 and 2024, supplemental reviews of site records and reports on file at the NCIC were conducted in 2015 and 2023, and a supplemental pedestrian survey was conducted in 2024. These efforts were undertaken to ascertain whether additional cultural resources had been identified since previous cultural resource investigations. Supplemental HPSRs were prepared and approved in 2016 and 2024 to document these efforts.

Area of Potential Effects

Since the 2008 and 2016 Supplemental HPSR approvals, the project footprint, which totals approximately 98.7 acres, has been reduced to encompass the selected Alternative 1 (the Build Alternative) (Figure 20). Revisions to the APE map are detailed below. No design changes have occurred to the Alternative 1 linework.

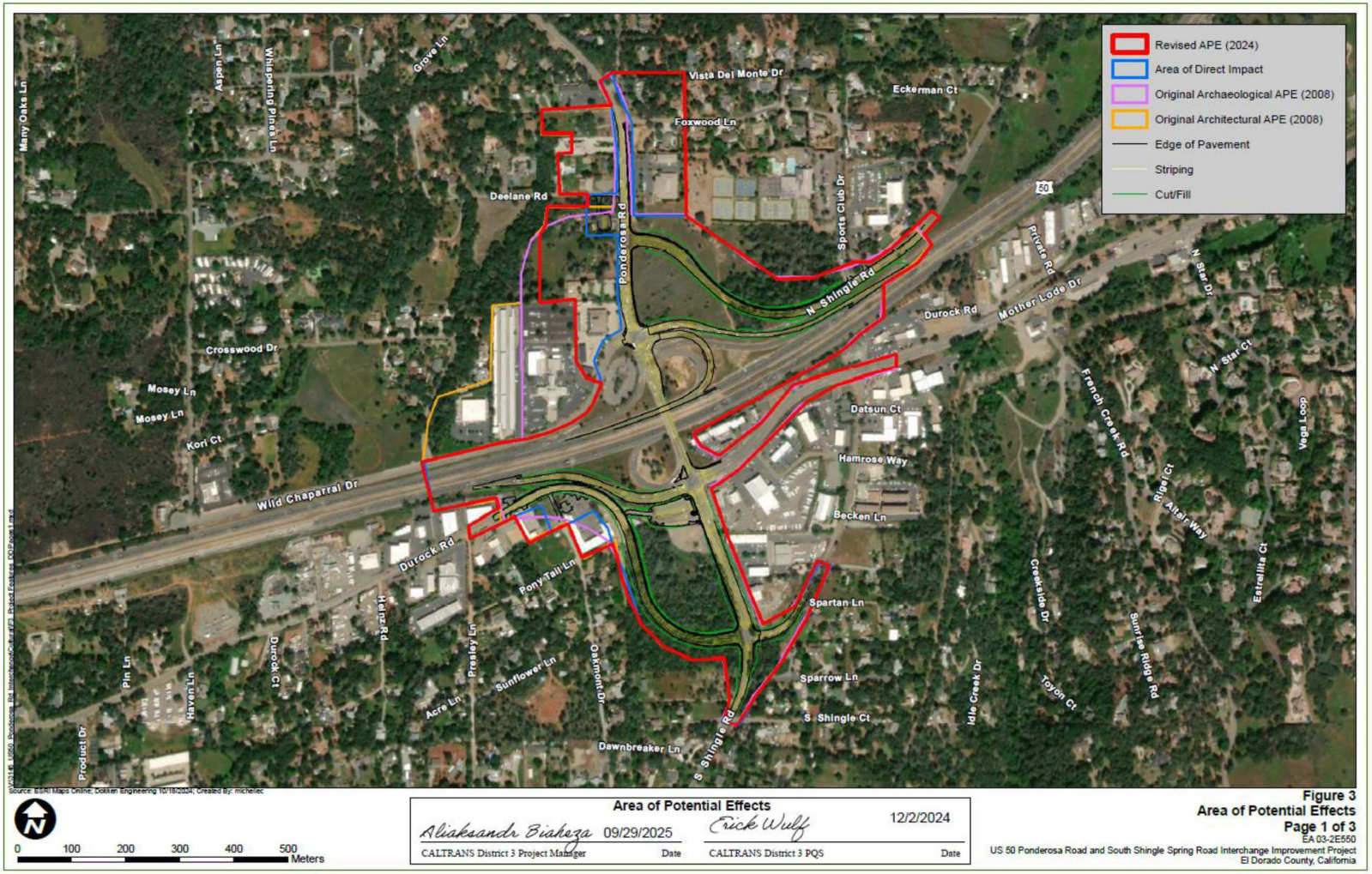

Figure 20. Area of Potential Effects

Figure 3
Area of Potential Effects
Page 2 of 3
EA 03-2E550
US 50 Ponderosa Road and South Shingle Spring Road Interchange Improvement Project
El Dorado County, California

Figure 3
Area of Potential Effects
Page 3 of 3
EA 03-2E550
US 50 Ponderosa Road and South Shingle Spring Road Interchange Improvement Project
El Dorado County, California

The revised APE encompasses the entire project area of direct and indirect impacts for the Build Alternative and totals 98.7 acres, including an Area of Direct Impacts (ADI) delineating the area of ground disturbance totaling 78.3 acres. The APE extends along U.S. 50 from Post Miles (PMs) 8.3 to 8.7. The APE extends westerly along the U.S. 50 mainline for approximately 1,250 feet (375 meters) and easterly 1,700 feet (525 meters) just past the existing westbound off-ramp. To the north, the APE extends 1,800 feet (575 meters) just north of the Ponderosa Road and North Shingle Road junction; and in a southern direction 1,800 feet (560 meters) to just past the South Shingle Road and South Shingle Court junction.

Vertical ground disturbance varies throughout the ADI. For most of the roadway work (Phase 1), grading would occur within five feet below existing ground surface. The maximum depth of vertical disturbance extends to 12 feet below existing ground surface for improvements at North Shingle Road. Vertical disturbance limits for the Ponderosa Road Overcrossing (part of Phase 2) would range between 10 and 20 feet below existing ground surface for construction of the replacement abutments. The abutments would be supported on driven piles that could extend an additional 50 feet.

The APE also includes parcels with proposed partial ROW acquisition and/or visual impacts due to the improvement project.

Background Research

The October 29, 2007, NCIC Records Search Results identified 5 previously recorded cultural resources within the Architectural and Archaeological APEs and the quarter-mile study area (PAR Environmental Inc. 2008). Two of these five resources were located within the Archaeological APE (P- 09-1930/CA-ELD-1380-H; and P-09-809/CA-ELD-721H). The remaining three resources (P-09-219/CA-ELD-131/H; CA-ELD-1399-H; and P-09-3313) are archaeological sites located within the Architectural APE; they would not be affected by the proposed project.

The 2015 Supplemental Records Search Results (NCIC File No. ELD-15-57) did not identify any previously unknown cultural resources within the Architectural and Archaeological APEs; however, it should be noted that the 5 resources identified and recorded during the 2008 cultural survey and documented in the 2008 HPSR for this

project were also included in the 2015 supplemental record search results (Dokken Engineering 2016).

A December 7, 2023, supplemental records search of the revised APE and a one-mile study area was requested from NCIC at California State University, Sacramento, on December 6, 2023 (Dokken Engineering 2024b). The records search was conducted by personnel from the NCIC, with results provided on December 7, 2023 (NCIC File No. ELD-23-95). The search did not identify any previously unknown cultural resources within the APE. No additional cultural resources are present with the revised APE. Previous identification efforts included in the previous HPSR submittals remain adequate.

Field Survey

Overall, field conditions of the revised APE remain unchanged since the 2008 investigations. Due to the time that has passed, a survey of the entire ADI was conducted on September 24, 2024, by Dokken Engineering archaeologist Michelle Campbell. The pedestrian survey was conducted via controlled transects spaced at no greater than 16 foot (5-meter) intervals within the area.

Surface visibility within the APE was generally poor (90-100% occlusion) in areas with dense surface vegetation. Visibility relatively improved to good (<75% occlusion) in lightly vegetated areas with more open surface exposures along the road shoulder. Particular attention was paid to de-vegetated surface exposures, as well as any rodent burrows, cut banks, and other exposed areas where the presence of artifacts, archaeological features, or anthropogenic soils are more likely to be observed.

Resources Identified

Eight cultural resources were identified during the 2008 pedestrian survey, seven of which remain in the current APE. One additional resource was identified during the 2024 investigations.

Three built environment resources identified within the APE include:

- Bridge No. 25 0074 Shingle Springs Overcrossing

- P-09-809/CA-ELD-721H (formerly P-09-4160, Durock Road), Sacramento-Placerville Road, Mormon Hill Road, Lincoln Highway
- 2064 Durock Road (constructed in 1972, has been so altered as to appear less than 30 years old)

Three isolated features identified within the APE include:

- P-09-4972, Ponderosa 1 – isolated mining feature (placer mining tailings)
- P-09-4973, Ponderosa 2 – isolated historic feature (wrought iron pipe)
- P-09-4974, Ponderosa 3 – isolated historic feature (linear depressions)

Three historic sites identified within the APE include:

- P-09-4975/CA-ELD-2911H, Ponderosa 4 - foundation remnants and sparse scatters of trash
- P-09-4976, Ponderosa 5 – mapped foundation/posts
- P-09-4977/CA-ELD-2912H, Ponderosa 6 – mapped foundation with few or no associated artifacts/ecofacts and no subsurface archaeological deposit potential

Environmental Consequences

Six resources were determined exempt from evaluation under Stipulation VII.C.1 of the Caltrans Section 106 PA:

- P-09-4972, Ponderosa 1 – isolated mining feature
- P-09-4973, Ponderosa 2 – isolated historic feature
- P-09-4974, Ponderosa 3 – isolated historic feature
- P-09-4976, Ponderosa 5 – mapped foundation/posts
- P-09-4977/CA-ELD-2912H, Ponderosa 6 – mapped foundation with few or no associated artifacts/ecofacts and no subsurface archaeological deposit potential
- 2064 Durock Road

Two resources were previously determined not eligible for inclusion in the National Register of Historic Places:

- Bridge No. 25 0074 Shingle Springs Overcrossing
- P-09-809/CA-ELD-721H (formerly P-09-4160, Durock Road), Sacramento-Placerville Road, Mormon Hill Road, Lincoln Highway

One resource (P-09-4975/CA-ELD-2911H), with foundation remnants and sparse scatters of trash, was evaluated for this project. Caltrans submitted the Historic Property Survey Report to SHPO on December 31, 2008. SHPO did not provide concurrence on the HPSR, however since the comment period for the determination of eligibility passed with no comments received in the 30-day time frame, Caltrans assumed concurrence on February 17, 2009 and proceeded with the next step of Section 106 compliance.

All other properties identified within the APE are modern (less than 45 years of age) and were exempted from further evaluation, as per Stipulation VIII.C.1 of the Caltrans Section 106 PA.

In consultation with the Shingle Springs Band of Miwok Indians (SSBMI) (hereafter Tribe), it was determined that the project area is sensitive for buried archaeological resources. While all identification efforts failed to identify signs of cultural or tribal resources present within the APE, SSBMI has requested monitoring for ground disturbance due to the known sensitivity of the project vicinity. In February 2025, a meeting between Dokken Engineering, Caltrans, and the County of El Dorado occurred to discuss tribal monitoring. It was decided that an Archaeological Monitoring Area Plan and Memorandum of Understanding would be prepared to allow the Tribe to monitor ground-disturbing activities during construction. As of June 2025, consultation with the SSBMI is ongoing. A Monitoring Plan would be established between the County of El Dorado and the Tribe prior to construction. Monthly meetings with the SSBMI and County of El Dorado are on-going.

Permanent Impacts

Build Alternative

Based upon the analysis performed for this proposed project, no historic properties are present within the project APE. As assigned by FHWA, Caltrans has determined

a Finding of No Historic Properties Affected, according to Section 106 PA Stipulation 1X.A and 36 CFR 800.4(d)(1), is appropriate for this undertaking. No permanent impacts to cultural resources are anticipated. Section 4(f) of the Department of Transportation Act of 1966 provides protection for historic properties. There are no historic properties present within the APE; therefore, there are no Section 4(f) historic sites affected by the proposed project.

No-Build Alternative

The No-Build Alternative does not involve construction and would not result in any potential to permanently impact cultural resources.

Temporary Impacts

Build Alternative

Based upon the analysis performed for this proposed project, no historic properties are present within the project APE. As assigned by FHWA, Caltrans has determined a Finding of No Historic Properties Affected, according to Section 106 PA Stipulation 1X.A and 36 CFR 800.4(d)(1), is appropriate for this undertaking; therefore, no temporary impacts to cultural resources are anticipated. If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area would be diverted until a qualified archaeologist can assess the nature and significance of the find.

If human remains are discovered, California Health and Safety Code Section 7050.5 states that further disturbances and activities will stop in any area or nearby area suspected to overlie remains, and the El Dorado County Coroner contacted. If the remains are thought by the coroner to be Native American, the coroner would notify NAHC, who, pursuant to PRC Section 5097.98, would then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains would contact the Caltrans staff so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

No-Build Alternative

The No-Build Alternative does not involve construction and would not result in any potential to temporarily impact cultural resources.

Avoidance, Minimization, and/or Mitigation Measures

Cultural resource identification efforts did not identified any National Register-eligible historic properties or Traditional Cultural Properties (TCPs) within the project's APE. Based on these results, it is unlikely that the proposed project would impact any cultural resources that are potentially eligible for listing on the NRHP or California Register or that would qualify as a TCP. However, the following minimization measures **CR-1** through **CR-3** would be implemented to minimize impacts to cultural resources discovered during construction of the project.

CR-1: If previously unidentified cultural materials are unearthed during construction, work will be halted in that area until a qualified archaeologist can assess the significance of the find and develop a plan for documentation and removal of resources, if necessary. Additional archaeological survey will be needed if project limits are extended beyond the present survey limits.

CR-2: If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities will cease in any area or nearby area suspected to overlie remains, and the El Dorado County Coroner contacted. Pursuant to Public Resources Code Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission who will then notify the Most Likely Descendent. At the same time, an archaeologist should be contacted to evaluate the situation. Further provisions of PRC 5097.98 are to be followed as applicable.

CR-3: The El Dorado County will continue coordinating with the Shingle Springs Band of Miwok Indians (SSBMI) throughout the duration of the project to ensure that the SSBMI has an opportunity to provide a tribal monitor during construction, that protective fencing is installed along the construction footprint in areas believed to be adjacent to sensitive Native American resources, and that a monitoring plan is prepared that clearly delineates the appropriate procedures regarding monitoring and unanticipated discovery of buried resources during construction.

PHYSICAL ENVIRONMENT

Water Quality and Stormwater Runoff

Regulatory Setting

Federal Requirements: Clean Water Act

In 1972 Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to the Waters of the United States (U.S.) from any point source unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. Known today as the Clean Water Act (CWA), Congress has amended it 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. Important CWA sections are:

- Sections 303 and 304 require states to promulgate water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for a federal license or permit to conduct any activity, which may result in a discharge to Waters of the U.S., to obtain certification from the State that the discharge would comply with other provisions of the act (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 U.S. The Federal Environmental Protection Agency (U.S. EPA) delegated to the California State Water Resources Control Board (SWRCB) the implementation and administration of the NPDES program in California. The SWRCB established nine Regional Water Quality Control Boards (RWQCBs). The SWRCB enacts and enforces the Federal NPDES program and all water quality programs and regulations that cross regional boundaries. The nine RWQCBs enact, administer and enforce all programs, including NPDES permitting, within their jurisdictional boundaries. 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 U.S., including wetlands. This permit program is administered by the U.S. Army Corps of Engineers (USACE).

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

The USACE issues two types of 404 permits: General and Individual. There are two types of General permits: Regional and Nationwide permits. 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 authorize a variety of minor project activities with no more than minimal effects.

There are also two types of Individual permits: Standard Individual permit and Letter of Permission. Ordinarily, projects that do not meet the criteria for a Nationwide Permit may be permitted under one of USACE's Individual permits. For Standard Individual permits, the USACE decision to approve is based on whether permit approval is in the public interest. The 404(b)(1) Guidelines were developed by the U.S. EPA in conjunction with USACE and allow the discharge of dredged or fill material into the aquatic system (Waters of the U.S.) only when there is no practicable alternative which would have less adverse effects. The Guidelines state that USACE may not issue a permit if there is a least environmentally damaging practicable alternative (LEDPA) to the proposed discharge that would have less effects on Waters of the U.S., and not have any other significant adverse environmental consequences. Per the Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures have been followed, in that order. The Guidelines also restrict permitting activities that violate water quality or toxic effluent standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause "significant degradation" to Waters of the U.S. In addition, every permit from the USACE, even if not subject to the 404(b)(1) Guidelines, must meet general requirements. See 33 CFR 320.4.

State Requirements: 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 within 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. It predates the CWA and regulates discharges to Waters of the State. Waters of the State include more than just Waters of the U.S., like groundwater and surface waters not considered Waters of the U.S. Additionally, it 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 Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA.

The State Water Resources Control Board (SWRCB) and RWQCBs are responsible for establishing the water quality standards as required by the CWA and regulating discharges to protect beneficial uses of water bodies. Details regarding water quality standards in a project area are contained in the applicable RWQCB Basin Plan.

In California, Regional Boards designate beneficial uses for all water body segments in their jurisdictions, and then set standards necessary to protect these uses. Consequently, the water quality standards developed for particular water body segments are based on the designated use and vary depending on such use. Water body segments that fail to meet standards for specific pollutants are included in a Statewide List in accordance with CWA Section 303(d). If a Regional Board determines that waters are impaired for one or more constituents and the standards cannot be met through point source or non-source point controls (NPDES permits or Waste Discharge Requirements), the CWA requires the establishment of Total Maximum Daily Loads (TMDLs). TMDLs specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed. The SWRCB implemented the requirements of CWA Section 303(d) through Attachment D of the Caltrans Statewide MS4 (Order No. 2022-0033-DWQ NPDES No. CAS000003), as it includes specific TMDLs for which Caltrans is named a responsible party.

State Water Resources Control Board and Regional Water Quality Control Boards

The State Water Resources Control Board (SWRCB) adjudicates water rights, sets water pollution control policy, and 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 (NPDES) Program

Section 402(p) of the CWA requires the issuance of NPDES permits for five categories of stormwater dischargers, including MS4s. The U.S. EPA defines an MS4 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 of El Dorado, or other public body having jurisdiction over stormwater, that are designed or used for collecting or conveying stormwater." The SWRCB has identified the California Department of Transportation (Caltrans) as an owner/operator of an MS4 pursuant to 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.

Municipal Separate Storm Sewer Systems (MS4)

Caltrans' MS4 Permit, NPDES No. CAS000003, SWRCB Order No. 2022-0033-DWQ (adopted on June 22, 2022, and effective on January 1, 2023) (Permit) regulates stormwater and non-stormwater discharges from Caltrans properties and facilities associated with operation and maintenance of the State Highway System (State Water Resources Control Board 2022). It contains four basic requirements:

1. Caltrans must comply with the requirements of the Construction General Permit (CGP) (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) Best Management Practices (BMPs) and other measures deemed necessary by the SWRCB and/or other agency having authority reviewing the stormwater component of the project.
4. Caltrans shall comply with the prohibition of discharge of trash to surface Waters of the State or deposition of trash where it may be discharged into surface Waters of the State through compliance with the requirements of

Attachment E of the Permit; with a demonstration of full compliance by December 2, 2030.

Caltrans' 2022 MS4 Permit incorporated the requirements of State Water Board Resolution 2015-0019, which amended the Water Quality Control Plan for Ocean Waters of California and the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California to include trash-related requirements, referred to in the Order as the "Trash Provisions." Implementation of the Trash Provisions includes the following:

- Caltrans shall install, operate, and maintain any combination of full capture systems, other treatment controls, and/or institutional controls for all storm drains that capture runoff from Significant Trash Generating Areas (where trash accumulates in substantial amounts as defined in section E4). Caltrans shall develop and implement monitoring plans that demonstrate that such combinations achieve full capture system equivalency.
- Caltrans shall coordinate efforts with municipal separate storm sewer system permittees subject to NPDES permits that implement the Trash Provisions, to install, operate, and maintain full capture systems, other treatment controls, and/or institutional controls in Significant Trash Generating Areas and/or Priority Land Uses.

To comply with the permit, Caltrans developed the Statewide Stormwater 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 Caltrans' stormwater management program and 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 the selection and implementation of BMPs. The proposed project would be programmed to follow the guidelines and procedures outlined in the latest SWMP to address stormwater runoff.

Construction General Permit

The Construction General Permit (CGP) (NPDES No. CAS000002, SWRCB Order No. 2022-0057-DWQ) was adopted on September 8, 2022, and effective on September 1, 2023. The permit regulates stormwater discharges from construction sites which result in a Disturbed Soil Area (DSA) of one acre or greater, and/or are smaller sites that are part of a larger common plan of development.

- For all projects subject to the CGP, the applicant is required to hire a Qualified Stormwater Pollution Prevention Plan (SWPPP) Developer (QSD) to develop and implement an effective SWPPP. A Qualified SWPPP Practitioner (QSP) may be hired as well to assist in field work. All Project Registration Documents (PRDs), including the SWPPP, Risk Level (RL) Determinations, site map and post-construction treatment documents are required to be uploaded into the SWRCB's on-line Stormwater Multiple Application and Report Tracking System (SMARTS). A Waste Discharge Identification (WDID) number will be issued within 10 business days after the State Waterboard receives a completed Notice of Intent (NOI) package.
- The 2022 CGP requires post-construction treatment permit registration documents to be submitted in SMARTS with the NOI to include: (1) An attachment or web-source containing the NPDES MS4 post-construction requirements and (2) the post-construction plans and calculations (Preliminary post-construction plans and calculations may be submitted as a Permit Registration Document, as long as the approved plans and calculations are submitted within 14 days of approval by the municipal stormwater permittee, through a Change of Information (COI) in SMARTS). Additionally, a Change of Information in SMARTS must be submitted for any revisions to post-construction plans and calculations prior to submitting the Notice of Termination (NOT).

Waiver from Construction General Permit

Projects that disturb over 1.0 acre, but less than 5 acres, of soil may qualify for waiver of CGP coverage. This occurs whenever the Rainfall Erosivity, (R) in the Revised Universal Soil Loss Equation (RUSLE) is less than 5. When the R factor is below the numeric value of 5, projects can be waived from coverage under the CGP, and are instead covered by the Caltrans Statewide MS4 permit. Refer to the CGP, Attachment D1, Risk Determination Worksheet of the CGP, link provided in Section 6. In accordance with the SWMP, a Water Pollution Control Program (WPCP) is necessary for construction of a Caltrans project not covered by the CGP.

Construction activity that results in soil disturbances of less than 1.0 acre is subject to the CGP if there is potential for significant water quality impairment resulting from the activity as determined by the RWQCB. Operators of regulated construction sites are required to develop a SWPPP, to implement soil erosion and pollution prevention control measures, and to obtain coverage under the CGP.

Risk Level Inspection and Sampling Requirements

The CGP contains a risk-based permitting approach by establishing three levels of risk possible for a construction site. Risk levels are determined during the planning, design, and construction phases, and are based on project risk of generating sediments and receiving water risk of becoming impaired. Requirements apply according to the Risk Level (RL) determined, with additional monitoring and reporting requirements for higher risk projects with detailed requirements listed in Attachment D of the CGP. Requirements include:

- Visual inspections weekly, prior to Qualifying Precipitation Events (QPEs), during QPEs (every 24 hours) and post QPEs. A qualifying Storm Event (QPE) is defined as a forecasted 50% probability of precipitation of 0.5” or more within a 24-hour period and continues on subsequent 24-hour periods when 0.25 inches or more is forecast.
- RL 2 and 3 projects have sampling requirement for pH and turbidity.

- Additionally, sampling for Numeric Action Levels (NALs) and Numeric Effluent Limits (NELs) is required for all risk level projects for TMDL-related non-visible pollutants listed in Attachment H of the CGP, if there is a discharge due to failure to implement a BMP, a container spill or leak, or a BMP breach or malfunction

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

In some cases, the RWQCB may have specific concerns with discharges associated with a project. As a result, the RWQCB may prescribe a set of requirements known as Waste Discharge Requirements (WDRs) under the Porter-Cologne Act. WDRs may specify the inclusion of additional project 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.

Affected Environment

A Stormwater Data Report was prepared by the County of El Dorado in May of 2025 (El Dorado County Department of Transportation 2025).

The project area is located within the foothills of the Sierra Nevada Mountains and is characterized by a Mediterranean-type climate with wet, moderate winters and warm, dry summers. The primary river system in the area is the Cosumnes River. Within the Sierra Nevada Foothills area, both groundwater and surface water are important water sources for both urban and agricultural users. Impacts to water quality result from a variety of factors including runoff during wet weather events, direct discharges associated with industrial and commercial activities, leaking sewer infrastructure, and illegal dumping.

Run-off from the project site is collected in swales and concrete ditches that flow parallel to the U.S. 50 ramps and mainline. This flow is then picked up by several underground drainage systems that convey the water to the south of U.S. 50. Generally, run-off east of the Ponderosa Road Overcrossing flows east and outfalls to Shingle Creek. West of the overcrossing, the run-off flows west to an unnamed tributary of Deer Creek. Both Shingle Creek and Deer Creek flow south and ultimately drain into the Cosumnes River over ten miles away.

Environmental Consequences

Build Alternative

A search of the SWRCB shows that none of the water features affected by drainage from the project site are included in the CWA Section 303(d) list of impaired waters. No impacts to protected impaired waters under the Porter-Cologne Act are anticipated and no restrictions to the TMDL would be imposed (Caltrans 2025a).

The existing project site has approximately 15.74 acres of impervious surface. With the proposed improvements, the project site would increase to 24.14 acres of impervious surface. The project would create additional impervious surfaces relative to natural soil, thereby increasing the velocity and volume of flow draining to the discharge channel and receiving waters. Since the discharge channel is unlined, there is a potential for increasing the sediment load as a result of increased erosion in the channel.

The project would result in a permanent increase in runoff, but would not result in substantial impacts to water quality due to project design improvements to the transportation facility. Caltrans provides the following summarized guidance and recommendations for drainage systems: Stormwater runoff systems should promote sheet flow through vegetation, utilize open vegetated channels and conveyances, and minimize curb, dike and pipe. Where open vegetated conveyances are not possible or practical, concentrated conveyance systems would include:

- Caltrans or County of El Dorado standard curb and gutter throughout the project to maximize collection of stormwater runoff
- Caltrans or County of El Dorado standard drain inlets (with inlet stenciling) and manholes

- Reinforced concrete pipes for stormwater collection

The County of El Dorado Drainage Manual requires 10-year event adherence for watersheds under 100 acres (most of the project), and 100-year event adherence for watersheds over 100 acres. The proposed project is designed to incorporate methods such that stormwater runoff from 10-year, 50-year and 100-year rain events would be fully contained and drained through the proposed interchange and adjacent roadway stormwater drainage systems.

No-Build Alternative

Under the No-Build Alternative, construction would not take place and there would be no changes to the drainage system. Consequently, there would be no impacts to water quality and stormwater runoff in the project area.

Avoidance, Minimization, and/or Mitigation Measures

Avoidance and minimization measures for stormwater are accomplished by implementation of approved Best Management Practices (BMPs), which are generally broken down into four categories: Pollution Prevention, Treatment, Construction, and Maintenance BMPs. The treatment BMP objective for this project would be to direct all storm run-off through a treatment BMP prior to discharging into the main drainage channels or the underground storm drain system. Temporary construction site BMPs would be deployed under a contractor-prepared SWPPP. For maintenance BMPs, the project is located in an El Dorado County MS4 area; therefore, drain inlet stenciling would be provided for all inlets within the project area.

A SWPPP would be developed which would outline measures that enhance the protection of water sources by providing BMPs for temporary soil stabilization, temporary sediment control, wind erosion control, tracking control, non-stormwater management, and waste management and material pollution control (Caltrans 2025). BMPs and WPCP requirements are assembled in compliance with the local SWMP and the General Construction Permit and would be included on applicable plans prepared for the proposed project. All BMPs and avoidance/minimization measures would be prepared in collaboration with the project engineer, County of El Dorado, the local flood control district, and other regulatory agencies. Selection and design of permanent project BMPs would be refined during the proposed project's

final design phase. Permanent BMPs may include biofiltration, infiltration or detention devices, media filters and multi-chambered treatment trains.

All project work within the State's right-of-way is required to comply with Caltrans 2022 MS4 Permit (Order 2022-0033-DWQ) (Caltrans Permit) which includes provisions requiring the implementation of permanent treatment BMPs for projects that include new impervious areas reaching or exceeding 10,000 square feet. It is anticipated the project would include permanent treatment BMPs (to satisfy Caltrans Permit requirements) and that all design-related decisions in this regard would include a geotechnical and hydraulic analysis component to support field functionality requirements.

To ensure that the proposed project maintains or improves water quality, the Build Alternative would follow the avoidance and minimization measures noted below.

SWR-1: For project areas exceeding one acre, NPDES guidelines necessitate the development of a SWPPP by the contractor prior to construction to establish project-specific permanent and temporary BMPs.

During the design phase, a Water Pollution Control Program would be prepared to determine the minimum control requirements to be included in the SWPPP. This project is subject to the requirements of the General Construction Permit Order No. 2022-0057-DWQ, effective on September 1, 2023. A Notice of Intent or Notice of Construction will be submitted to the SWRCB along with the completed SWPPP.

SWR-2: BMPs include any facilities and methods used to remove, reduce, or prevent stormwater runoff pollutants from entering receiving waters. Erosion control methods, temporary and permanent BMPs, and improvement of drainage facilities along the roadway would minimize impacts from stormwater runoff. The SWPPP and NPDES compliant measures would ensure no adverse impacts would occur to water quality associated with each of the build alternatives.

SWR-3: Temporary construction site BMPs will be deployed under a contractor prepared SWPPP. Temporary concrete washouts,

stabilized construction entrances/exits, and fiber rolls and additional items will be identified during the project design phase.

Geology/Soils/Seismic/Topography

Regulatory Setting

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."

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. 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 would determine its seismic performance level and which methods are used for estimating the seismic demands and structural capabilities. For more information, please see the Caltrans Division of Engineering Services, Office of Earthquake Engineering, Seismic Design Criteria at https://dot.ca.gov/programs/engineering-services/manuals/seismic-design-criteria.

Affected Environment

A Preliminary Geotechnical Report was prepared by Blackburn Consulting in December of 2008 which provides geotechnical information for the proposed project (Blackburn Consulting 2008).

The project is located in the Sierra Nevada Foothills Geomorphic Province of California. The Sierra Nevada has a general northwest topographic trend and is approximately 430 miles long and 40 to 80 miles wide. The mountain ranges of this region were created roughly 120 to 130 million years ago through the uprise of sediments as thick as 30,000 feet long, creating a series of low mountain ranges. These ranges were then intruded (forced or thrust into a preexisting formation) by granitic rock.

The metamorphic belt of the structural framework of the Sierra Nevada comprises a series of northwest-trending fault systems, extending north-south through this area

of the Sierra-Nevada Foothills. Of these, the western branch of the Melones Fault, known as the Mother Lode Fault, passes through El Dorado County just east of the city of Placerville.

The geologic formation largely comprises metamorphic or intrusive igneous rocks. In addition, ancient stream channel sediments remain covered and protected by volcanic deposits in the tertiary period.

The project area consists of gentle to steep, natural undulating slopes. The project area includes artificial cut and fill, providing the foundations of the current roadway system. Localized areas of slope instability associated with cut and grading for development may periodically occur; however, slope stabilization practices and the development of retaining walls typically minimize or avoid such instability.

Seismically active zones exist to the southwest (San Francisco Bay area) and to the northeast (the Basin and Range areas) of the project area, and therefore earthquakes have occurred within the regions surrounding the project area (El Dorado County 2004a). However, there are no active faults or earthquake epicenters near the project area. As discussed above, the inactive Mother Lode branch of the Melones Fault passes through the city of Placerville, trending to the northwest, to the east of the project area. The project area's firm bedrock foundation makes the area quite resistant to ground-shaking events, which would potentially result from seismic activity in the region's seismically active zones. Although the project area is relatively limited in regards to seismic activity, Caltrans roadway design standards are applicable within the project area.

The proposed project area is within the Shingle Springs Mining District. The district consists of a north-trending gold belt characterized by greenstone, green schist and slate with serpentine bodies that extend through the central part of the district. A granodiorite-gabbro intrusion lies to the west of the project area (El Dorado County 2004a).

The soils within the project area derive from weathered metamorphosed and intrusive parent rock. The soils include members of the Rescue and Argonaut soil series. The soils are generally classified as gravelly loams and sandy loams. The majority of the project is characterized by the Rescue soil series, which has

developed B horizons that extend about a meter (approximately three feet) below the surface (El Dorado County 2004).

Based on the *Areas More Likely to Contain Natural Occurrences of Asbestos in Western El Dorado County, California* (El Dorado County 2018), the project study area is partially mapped within "Areas More Likely to Contain Asbestos." The potential presence of naturally occurring asbestos (NOA) within the project area is an environmental concern.

Groundwater level data was reviewed at the California Department of Water Resources and reported that the regional groundwater table in the project vicinity is at a level of approximately 100 to 200 feet below ground surface. Groundwater flow is generally oriented toward the west.

Environmental Consequences

Permanent Impacts

Build Alternative

The project is not located within an Alquist-Priolo Earthquake Zone and there are no active faults or earthquake epicenters near the project area (Hart, E. W., and W. A. Bryant 1997). Thus, the potential for surface fault rupture is not expected to impact the site. Additionally, rock is present at shallow depths throughout the project area; therefore, liquefaction and seismic settlement across the project site are not anticipated to be a design consideration. Landslides are also not known to exist at or near to the site and therefore are not a design consideration for the site.

The proposed project would be designed in accordance with design requirements of the Caltrans Highway Design Manual, Caltrans Design Specifications, and applicable seismic standards. Additionally, with the implementation of SWR-2 (found under the Water Quality and Stormwater Runoff section), substantial soil erosion or loss of topsoil is not anticipated. Due to required design specifications and implementation of Best Management Practices (BMPs) and Avoidance and Minimization Measures, Caltrans does not anticipate the public would be exposed to potential geologic hazards during operation of the project.

No-Build Alternative

Under the No-Build Alternative, no construction would take place and there would be no changes to soils or topography. Consequently, there would be no geologic, seismic, or soils related impacts in the project area.

Temporary Impacts

Build Alternative

The project is not located within an Alquist-Priolo Earthquake Zone and there are no active faults or earthquake epicenters near the project area. Thus, the potential for surface fault rupture is not expected to impact the site during construction. As rock is present at shallow depths throughout the project area, liquefaction and seismic settlement across the project site are not anticipated during construction.

During construction activities, excavated soil would be exposed and there would be an increased potential for soil erosion compared to existing conditions. With implementation of SWR-1 through SWR-3, substantial soil erosion or loss of topsoil is not anticipated.

According to the Asbestos Review Areas – Western Slope – County of El Dorado – State of California Map, the project site is located in a "Quarter-Mile Buffer for More Likely to Contain Asbestos or Fault Line". While this does not prove NOA is absent from or present at the project site, it does indicate the potential for NOA to be present at the project site. Shallow soil sampling and analytical testing should be performed for the unpaved highway/roadway shoulders and median in areas of planned construction excavations to evaluate the potential presence of NOA at regulated concentrations. Additionally, limited screening-level soil sampling and analytical testing would be necessary to determine if any excess excavated soil generated within the project area would be suitable for reuse at properties with residential or other sensitive land use. Lastly, prior to construction, an Asbestos Dust Mitigation Plan would be obtained from the Sacramento Air Quality Management District, which would be implemented to ensure impacts from NOA are not substantial. To ensure the proposed project does not cause an impact related to NOA during construction, HW-5 and HW-6 (found under the Hazardous Waste/Materials section) would be implemented. With implementation of SWR-1

through SWR-3, HW-5, and HW-6, potential exposure of construction workers to geologic hazards is not anticipated during construction.

No-Build Alternative

Under the No-Build Alternative, no construction would take place and there would be no changes to soils or topography. Consequently, there would be no geologic, seismic, or soils-related impacts in the project area.

Avoidance, Minimization, and/or Mitigation Measures

The project would incorporate SWR-1 through SWR-3, as described in the Water Quality and Stormwater Runoff section, and HW-5 and HW-6 as described in the Hazardous Waste/Materials section.

Hazardous Waste/Materials

Regulatory Setting

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

The primary federal laws regulating hazardous wastes/materials are the *Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980* and the *Resource Conservation and Recovery Act (RCRA) of 1976.* The purpose of CERCLA, often referred to as "Superfund," is to identify and clean up abandoned contaminated sites so that public health and welfare are not compromised. The RCRA provides for "cradle to grave" regulation of hazardous waste generated by operating entities. Other federal laws include:

- Community Environmental Response Facilitation Act of 1992
- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety and Health Act

- Atomic Energy Act
- Toxic Substances Control Act
- Federal Insecticide, Fungicide, and Rodenticide Act

Section 121(d) of CERCLA requires that remedial action plans include consideration of more stringent state environmental "Applicable or Relevant and Appropriate Requirements" (ARARs).

The 1990 National Oil and Hazardous Substances Pollution Contingency Plan also requires compliance with ARARs during remedial actions and during removal actions to the extent practicable. As a result, state laws pertaining to hazardous waste management and cleanup of contamination are also pertinent.

In addition to the acts listed above, EO 12088, *Federal Compliance with Pollution Control Standards*, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved.

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

Affected Environment

In 2009, a Hazardous Waste Initial Site Assessment (ISA) was prepared by Blackburn Consulting for the U.S. 50/Ponderosa Interchange Project (Blackburn Consulting 2009). An updated ISA was prepared by Geocon Consultants in May 2024 (Geocon Consultants, Inc. 2024). The purpose of the ISA was to identify Recognized Environmental Conditions (RECs) and potential RECs within and adjacent to the project area which could affect the design, constructability, feasibility, and/or the cost of the proposed project. Potential environmental concerns and contaminated properties that are determined to potentially pose a significant impact to the planned interchange and roadway improvements identified in the ISA would be further evaluated during a subsequent environmental site investigation. A record search of federal, state and local databases and map review was conducted April 3, 2024. A field survey was conducted April 26, 2024, to visually confirm information

gathered by aerial photos, database searches, and interviews are accurate and complete.

The properties evaluated for RECs include existing County of El Dorado ROW and 44 parcels located adjacent to the ROW in the project area (Subject Properties). RECs that have been identified in the project area include the following: lead and heavy metals associated with pavement striping, underground storage tanks (USTs), petroleum based contaminated soils, asbestos-containing materials, treated wood waste, aerially deposited lead, and NOA.

The results of the ISA also identified the following parcels (Table 13) within the project area that may require (depending on the extent of ROW acquisitions and TCEs) further environmental assessment for potentially hazardous material/waste impact for design and construction of planned U.S. 50 Ponderosa Road Interchange improvements:

Planned Partial Acquisitions

Three parcels that potentially contain hazardous material within the project limits may require partial acquisition. See the Environmental Consequences section below and Table 13 below for more information.

Non-Acquisition Parcels

The following parcels with identified environmental concerns are not currently planned for partial acquisition. Further environmental assessment, including exploratory excavations, soil sampling, and analytical testing, may be warranted should ROW acquisitions be required and/or construction excavations are planned within close proximity to these parcels.

- APNs 070-280-039, 070-280-053, 090-430-045, and 090-430-038, Former and Existing Auto Dealerships - documented waste oil UST release and related subsurface impacts at APN 090-430-038, Shingle Springs Honda. No documented releases for the remaining three parcels.
- APNs 070-250-008, 090-430-012, 090-430-042, and 090-440-023, Former and Existing Refueling Facilities - documented gasoline surface release and related subsurface impacts at APN 090-430-012 Chevron gasoline station due to 2003 fuel tanker spill and close proximity of existing 40-year-old fuel

USTs to Mother Lode Drive. No documented releases for Parcel APN 070-250-008 El Dorado County Fire Station 28, Parcel APN 090-430-042 Union 76 gasoline station, and former UST refueling facilities at Parcel APN 090-440-023.

- APN 090-430-012, Former Dry-cleaning Facility - no documented releases for this former dry-cleaning facility.
- APN 090-430-013, Express Lube - No documented releases for APN 090-430-013.

Environmental Consequences

Permanent Impacts

Build Alternative

Impacts associated with hazardous materials or hazardous waste are limited to the construction phase of the project. Permanent impacts (direct or indirect) related to hazardous materials are not anticipated as a result of the Build Alternative since operation of the project would not generate hazardous waste.

No-Build Alternative

The No-Build Alternative proposed no construction of transportation improvements in the project area. Therefore, the No-Build Alternative would result in no permanent impacts related to hazardous waste.

Temporary Impacts

Build Alternative

Three parcels were identified within the project limits to potentially contain hazardous material and may require partial acquisition (Table 13). The locations of these parcels are shown below in Figure 22. More information regarding these parcels is also discussed below:

- APNs 070-270-029 and 070-270-020 (no addresses) consist of vacant undeveloped land fronting Ponderosa Road and North Shingle Road. A lumber mill storage yard was observed on these properties on a 1952 aerial photograph. Evidence of a former lumber storage yard observed during the

site reconnaissance included concrete foundation rubble, braced metal posts, and remnant asphalt-paved areas. Based on the historical lumber mill storage yard use of these parcels, exploratory excavations, soil sampling, and analytical testing for heavy metals, petroleum hydrocarbons, and wood treatment chemicals is recommended prior to parcel acquisition and construction of the planned roadway/highway improvements.

- APN 109-040-040 (4064 Durock Road) consists of an existing equipment rental facility fronting Durock Road. Two fuel underground storage tanks (USTs) installed at this facility in 1972 were removed in 1991. Contaminated tank backfill materials removed from the UST excavation were placed on the south end of the property to aerate. The El Dorado County of Environmental Management Department (EDCEMD) provided “no further action required” regulatory case closure status for the UST removals based on the lack of detectable petroleum hydrocarbon concentrations in the confirmation soil samples obtained from beneath the removed tanks. Other areas of concern at this facility include a grease and oil trap (installed 1980) and oil storage building. Based on the use of this parcel for refueling and equipment washing since the early 1970s, an onsite reconnaissance and owner interview and exploratory excavations, soil sampling, and analytical testing for petroleum hydrocarbons is recommended prior to parcel acquisition and construction of the planned roadway/highway improvements.

Table 13. Hazardous Sites within of Adjacent to the Project Corridor

Parcel APN	Type of Acquisition	Potential Environmental Concerns	Recommended Action	Risk
070-270-029-000	Partial	Potential for subsurface soil impacts related to historical lumber mill operations	Exploratory excavations, soil sampling, and analytical testing for heavy metals, petroleum hydrocarbons, and wood treatment chemicals is recommended (**HW-1**).	Medium
070-270-020-000	Partial	Potential for subsurface soil impacts related to historical lumber mill operations	Exploratory excavations, soil sampling, and analytical testing for heavy metals, petroleum hydrocarbons, and wood treatment chemicals is recommended (**HW-1**).	Medium
109-040-040-000	Partial	Former fuel USTs and grease and oil trap.	Exploratory excavations, soil sampling, and analytical testing for petroleum hydrocarbons is recommended prior to any potential parcel acquisition and the construction of the planned roadway or highway improvements (**HW-1**).	Medium

There are several parcels identified within the project limits that would not be required for partial ROW acquisition. Nine of these parcels were identified with environmental concerns and discussed in the Affected Environment Section above. The locations of these parcels are shown below in Figure 21. These sites were not determined to have any hazardous materials conditions that are expected to impact the project. If the proposed project should require property acquisition and/or excavation is planned to occur at these parcels, then further investigation of potential hazardous materials is recommended.

Figure 21. Potentially Hazardous Material/Waste Sites

As shown in Table 13 above, exploratory excavations, soil sampling, and analytical testing for heavy metals, petroleum hydrocarbons, and wood treatment chemicals is recommended prior to parcel acquisition of APNs 070-270-029 and 070-270-020. Additionally, exploratory excavations, soil sampling, and analytical testing for petroleum hydrocarbons is recommended prior to parcel acquisition of APN 109-040-040. With implementation of HW-1 and HW-2 (shown under Avoidance, Minimization and/or Mitigation Measures below), hazardous waste impacts related to heavy metals and petroleum hydrocarbons are not anticipated.

Some yellow traffic stripes (thermoplastic paint) are known to contain heavy metals (such as lead and chromium) at concentrations in excess of the hazardous waste thresholds established by the California Code of Regulations and may produce toxic fumes when heated. Yellow traffic striping is located throughout the project area; therefore, a Lead Compliance Plan would be required (HW-3).

Aerially deposited lead (ADL), from the historical use of leaded gasoline, exists along roadways throughout California. If encountered, soil with elevated concentrations of lead as a result of ADL on the State Highway System right of way within the limits of the project would be managed under the July 1, 2016, ADL Agreement between Caltrans and the California Department of Toxic Substances Control. This ADL Agreement allows such soils to be safely reused within the project limits as long as all requirements of the ADL Agreement are met.

Shallow soil sampling and analytical testing should be performed for the unpaved highway/roadway shoulders and median in areas of planned construction excavations to evaluate the potential presence of ADL at regulated concentrations. Additionally, limited screening-level soil sampling and analytical testing would be necessary to determine if any excess excavated soil generated within the project area would be suitable for reuse at properties with residential or other sensitive land use. With implementation of HW-4, hazardous waste impacts related to ADL are not anticipated.

Asbestos occurs naturally in many Sierra foothill counties, including El Dorado County. In any area of NOA, it is likely there would be some low level risk associated with background concentrations of asbestos. Coordination with the El Dorado County Environmental Health Department and Air Quality Management District has determined that the project is in an area in a “Quarter-Mile Buffer for More Likely to

Contain Asbestos or Fault Line" (El Dorado County Air Quality Management District 2002). While this does not prove NOA is absent from or present at the project site, it does indicate the potential for NOA to be present at the project site.

Shallow soil sampling and analytical testing should be performed for the unpaved highway/roadway shoulders and median in areas of planned construction excavations to evaluate the potential presence of NOA at regulated concentrations. Additionally, limited screening-level soil sampling and analytical testing would be necessary to determine if any excess excavated soil generated within the project area would be suitable for reuse at properties with residential or other sensitive land use. Lastly, prior to construction, an Asbestos Dust Mitigation Plan will be obtained from the Air Quality Management Department and would be implemented to ensure impacts from NOA are not substantial. To ensure the proposed project does not cause an impact related to NOA during construction, HW-5 and HW-6 would be implemented.

Asbestos-containing pipe and treated wood may be encountered during construction of the planned U.S. 50 interchange improvements that would require proper handling and disposal in accordance with regulatory requirements (HW-7).

Undocumented USTs associated with former refueling and service station operations may exist within the project area. Undocumented subsurface structures (including USTs, septic systems, and domestic/agricultural water wells encountered during construction excavation activities) should be properly removed or abandoned in accordance with EDCEMD permitting requirements. Areas where apparent soil contamination (e.g., odor, staining, debris, etc.) is encountered during construction excavation/grading activities (if any) should be isolated, stockpiled separately, and disposed of where appropriate to an accepting landfill facility. Notification to the EDCEMD for regulatory oversight may be required if any significant areas of contamination are encountered (HW-8).

A survey for asbestos-containing material (ACM) and lead-containing paint (LCP) should be performed of the Shingle Springs Overcrossing bridge structure prior to any planned renovation or demolition activities (HW-9). ACM and LCP may be present in existing buildings and related structures within the project area planned for partial acquisition.

Asbestos and LCP surveys should be performed for any buildings proposed for demolition as part of the project to satisfy regulatory requirements (asbestos) and demolition waste disposal characterization (asbestos and lead) (HW-10).

No-Build Alternative

The No-Build Alternative would result in no construction; therefore, there would be no potential to encounter unknown hazardous materials.

Avoidance, Minimization, and/or Mitigation Measures

The measures described below would ensure there are no adverse hazardous waste impacts during construction of the project. In addition to the measures below, Caltrans Standard Special Provisions (SSPs) would be utilized for this project as necessary.

HW-1: Exploratory excavations, soil sampling, and analytical testing is required for Parcel APNs 070-270-029, 070-270-020, and APN 109-040-040 prior to ROW acquisition.

HW-2: In the event that volatile organic compounds, hydrocarbons, or heavy metal levels exceed the statewide standard during testing, the contaminated soil will be properly handled and transported off site to a licensed Class I hazardous waste landfill. After excavation, and prior to off-site disposal, all soil will be managed appropriately on site per the Department of Toxic Substance Control (DTSC) protocol to reduce the risk of accidental release of hazardous materials.

HW-3: Removal of any yellow traffic striping within the project area will require that an appropriate Lead Compliance Plan be developed.

HW-4: An Aerially Deposited Lead (ADL) evaluation will be prepared for any work within unpaved highway/roadway shoulders and median in areas of planned construction excavations. An appropriate Soil Management Plan will be developed for soil containing significant concentrations of ADL. If soils contain hazardous levels of ADL, the contaminated soil must be handled appropriately or disposed of at a Class 1 disposal facility.

HW-5: Shallow soil sampling and analytical testing should be performed for the unpaved highway/roadway shoulders and median in areas of planned construction excavations to evaluate the potential presence of NOA at regulated concentrations.

HW-6: Prior to construction, an Asbestos Dust Mitigation Plan will be obtained from the Air Quality Management Department, and all measures from these plans will be implemented to ensure that impacts from Naturally Occurring Asbestos are not significant.

HW-7: Any chemically treated wood must be treated as Treated Wood Waste (TWW) and disposed of as hazardous waste. For the TWW, the DTSC regulations § 66261.9.5 provide alternative management standards for TWW. Caltrans 2024 SSP for TWW, SSP 14-11.14, is based on DTSCs Alternative Management Standards (AMS) regulations. This SSP directs the Contractor to follow the AMS, including providing training to all personnel that may come in contact with TWW. This training must include, at a minimum, safe handling, sorting and segregating, storage, labeling (including date), and proper disposal methods.

HW-8: Undocumented subsurface structures, including USTs, septic systems, and domestic/agricultural water wells, encountered during construction excavation activities should be properly removed or abandoned in accordance with EDCEMD permitting requirements. Areas where apparent soil contamination (e.g., odor, staining, debris, etc.) is encountered during construction excavation/grading activities (if any) should be isolated, stockpiled separately, and disposed of where appropriate to an accepting landfill facility. Notification to the EDCEMD for regulatory oversight may be required if any significant areas of contamination are encountered.

HW-9: An ACM and LCP survey should be performed of the Shingle Springs Overcrossing bridge structure prior to any planned renovation or demolition activities.

HW-10: Asbestos and LCP surveys should be performed for any buildings proposed for demolition as part of the project to satisfy regulatory requirements (asbestos) and demolition waste disposal characterization (asbestos and lead).

Air Quality

Regulatory Setting

The Federal Clean Air Act (FCAA), as amended, is the primary federal law that governs air quality while the California Clean Air Act (CCAA) is its companion state law. These laws and related regulations by the U.S. EPA and the California Air Resource Board 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 have been established for six transportation-related criteria pollutants that have been linked to potential health concerns: carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), particulate matter (PM), which is broken down for regulatory purposes into particles of 10 micrometers or smaller (PM_{10}) and particles of 2.5 micrometers and smaller ($PM_{2.5}$), and sulfur dioxide (SO_2). In addition, national and state standards exist for lead (Pb), and state standards exist for visibility-reducing particles, sulfates, hydrogen sulfide (H_2S), and vinyl chloride. The NAAQS and state standards are set at levels that protect public health with a margin of safety, and are subject to periodic review and revision. Both federal and state 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.

Conformity

The conformity requirement is based on Federal Clean Air Act Section 176(c), which prohibits the U.S. Department of Transportation (USDOT) and other federal agencies from funding, authorizing, or approving plans, programs, or projects that do not conform to State Implementation Plan (SIP) for attaining the NAAQS. "Transportation Conformity" applies to highway and transit projects and takes place on two levels: the regional—or planning and programming level—and the project level. The proposed project must conform at both levels to be approved.

Conformity requirements apply only in nonattainment and “maintenance” (former nonattainment) areas for the NAAQS, and only for the specific NAAQS that are or were violated. The U.S. EPA regulations at 40 CFR 93 govern the conformity process. Conformity requirements do not apply in unclassifiable/attainment areas for NAAQS and do not apply at all for state standards regardless of the status of the area.

Regional conformity is concerned with how well the regional transportation system supports plans for attaining the NAAQS for carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), particulate matter (PM_{10} and $PM_{2.5}$), and in some areas (although not in California), sulfur dioxide (SO_2). California has attainment or maintenance areas for all of these transportation-related “criteria pollutants” except SO_2, and also has a nonattainment area for lead (Pb); however, lead is not currently required by the FCAA to be covered in transportation conformity analysis. Regional conformity is based on emission analysis of Regional Transportation Plans (RTPs) and Federal Transportation Improvement Programs (FTIPs) that include all transportation projects planned for a region over a period of at least 20 years (for the RTP), and 4 years (for the FTIP). RTP and FTIP conformity uses travel demand and emission models to determine whether or not the implementation of those projects would conform to emission budgets or other tests at various analysis years showing that requirements of the Clean Air Act and the SIP are met. If the conformity analysis is successful, the Metropolitan Planning Organization (MPO), FHWA, and Federal Transit Administration (FTA), make the determinations that the RTP and FTIP are in conformity with the SIP for achieving the goals of the Clean Air Act. Otherwise, the projects in the RTP and/or FTIP must be modified until conformity is attained. If the design concept, scope, and “open-to-traffic” schedule of a proposed transportation project are the same as described in the RTP and the TIP, then the proposed project meets regional conformity requirements for purposes of project-level analysis. Project-level conformity is achieved by demonstrating that the project comes from a conforming RTP and TIP and the project has a design concept and scope2 that has not changed significantly from those in the RTP and TIP.

[2] "Design concept" means the type of facility that is proposed, such as a freeway or arterial highway. "Design scope" refers to those aspects of the project that would clearly affect capacity and thus any regional emissions analysis, such as the number of lanes and the length of the project.

If the design concept and scope have changed substantially from that used in the RTP Conformity analysis, RTP and TIP amendments may be needed. Project-level conformity also needs to demonstrate that project analyses have used the latest planning assumptions and U.S. EPA-approved emissions models; the project complies with any control measures in the SIP in PM areas. Furthermore, additional analyses (known as hot-spot analyses) may be required for projects located in CO and PM nonattainment or maintenance areas to examine localized air quality impacts.

Affected Environment

In June 2009, an Air Quality Technical Report was prepared by K. D. Anderson and Associates to present an evaluation of the construction-related and operational impacts of the proposed project on the air quality environment (K. D. Anderson and Associates 2009). In 2011 an update to the report was prepared by K.D. Anderson and then in 2025, an Air Quality Technical Report Addendum was prepared by Dokken Engineering, which verified that the findings and conclusions described in the 2009 and 2011 Air Quality Technical Reports are still valid.

The project site is located in El Dorado County, which is in the Mountain Counties Air Basin (MCAB). The climate of the MCAB is influenced by the foothill and mountainous terrain of the counties in the MCAB. The county is bordered by the Sacramento Valley to the west and the Nevada State line to the east with the western portion of the county consisting of rolling Sierra Nevada foothills, and the central and eastern portion of the county consisting of granite peaks reaching up to 10,000 feet in elevation. The climate of the county is characterized by hot dry summers and cool moist winters. The western portion of the county is characterized by higher temperatures and lower annual rainfall, and the central and eastern portions of the county are characterized by lower temperatures and higher annual rainfall.

Air quality is affected by the rate, amount, and location of pollutant emissions and the associated meteorological conditions that influence movement and dispersal of pollutants. Atmospheric conditions, including wind speed, wind direction and air temperature, in combination with local surface topography (i.e., geographic features such as mountains and valleys), determine air pollutant impacts on local air quality.

Air quality in the project area is influenced mostly by pollutant transport from upwind areas, such as the Sacramento and San Francisco Bay metropolitan areas, but also by local emissions sources, such as wood burning stoves and fireplaces during the winter months and vehicles using area roadways and U.S. 50.

The project site is designated a federal and state attainment area for CO, a federal non-attainment area for O_3 and $PM_{2.5}$, and a federal unclassified area for PM_{10}. The project site is within a state non-attainment area for O_3 and PM_{10}, and is in an unclassified or attainment area for state standards for $PM_{2.5}$. Table 14 summarizes the air quality attainment status designations within the MCAB portion of El Dorado County.

Table 14. Air Quality Attainment Status Designations - MCAB Portion of El Dorado County

Pollutant	Federal Standard	State Standard
Ozone (1-Hour Standard)	No Federal Standard	Nonattainment
Ozone (8-Hour Standard)	Nonattainment (Serious)	To Be Determined
Carbon Monoxide	Unclassified/Attainment	Unclassified
Nitrogen Dioxide	Attainment	Attainment
Particulate Matter (PM10)	Unclassified	Nonattainment
Fine Particulate Matter (PM2.5)	Nonattainment	Unclassified

Source: CARB 2025

Table 15 below indicates the federal and state standard for criteria air pollutants.

Table 15. Criteria Air Pollutant Standards

Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards [1]		National Standards [2]		
		Concentration [3]	Method [4]	Primary [3,5]	Secondary [3,6]	Method [7]
Ozone (O_3)[8]	1 Hour	0.09 ppm (180 µg/m³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m³)		0.070 ppm (137 µg/m³)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 µg/m³	Gravimetric or Beta Attenuation	150 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m³		—		
Fine Particulate Matter (PM2.5)[9]	24 Hour	—	—	35 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m³	Gravimetric or Beta Attenuation	9.0 µg/m³	15.0 µg/m³	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m³)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m³)		9 ppm (10 mg/m³)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m³)		—	—	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 µg/m³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m³)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)		53 ppb (100 µg/m³)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 µg/m³)	Ultraviolet Fluorescence	75 ppb (196 µg/m³)	—	Ultraviolet Flourescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m³)	
	24 Hour	0.04 ppm (105 µg/m³)		0.14 ppm (for certain areas)[11]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[11]	—	
Lead[12,13]	30 Day Average	1.5 µg/m³	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m³ (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m³		
Visibility Reducing Particles[14]	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m³)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m³)	Gas Chromatography			

See footnotes on next page ...

For more information please call ARB-PIO at (916) 322-2990

California Air Resources Board (7/16/24)

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.

8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

9. On February 7, 2024, the national annual PM2.5 primary standard was lowered from 12.0 $\mu g/m^3$ to 9.0 $\mu g/m^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15.0 $\mu g/m^3$. The existing 24-hour PM10 standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

11. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

For more information please call ARB-PIO at (916) 322-2990 **California Air Resources Board (7/16/24)**

Criteria pollutants that are of greatest concern for the proposed project are CO, O_3, and PM. O_3 is a pollutant created in the atmosphere through the combination of two "precursors", reactive organic gases (ROG) and nitrogen oxides (NO_x), in the presence of sunlight.

In addition to criteria pollutants, a pollutant of concern in the vicinity of the project site is Naturally Occurring Asbestos (NOA). Emissions of NOA have been attributed to soil-disturbing activities, including construction activities. According to the Asbestos Review Areas–Western Slope–County of El Dorado–State of California Map (El Dorado County 2018), the project site is located in a "Quarter-Mile Buffer for More Likely to Contain Asbestos or Fault Line". While this does not prove NOA is absent from, or present at the project site, it does indicate the potential for NOA to be present at the project site.

Environmental Consequences

Regional Air Quality Conformity

The proposed project is listed in the 2023 SACOG Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS), which was found to conform by SACOG on February 6, 2024, and FHWA and the Federal Transit Administration made a regional conformity determination finding on February 6, 2024. The project is also included in SACOG's financially constrained 2025–2028 Metropolitan Transportation Improvement Program (MTIP), pages 1 and 2. See Appendix A for copies of the project listing. The SACOG 2025–2028 MTIP was determined to conform by FHWA and the Federal Transit Administration on December 16, 2024. The design concept and scope of the proposed project is consistent with the project description in the 2023 SACOG MTP/SCS, 2025–2028 MTIP, and the "open to traffic" assumptions of SACOG's regional emissions analysis.

Project Level Conformity

Carbon Monoxide (CO)

The CO Protocol was developed for project-level conformity (hot-spot) analysis and was approved for use by the U.S. EPA in 1997. It provides qualitative and quantitative screening procedures, as well as quantitative (modeling) analysis methods to assess project-level CO impacts. The qualitative screening step is

designed to avoid the use of detailed modeling for projects that clearly cannot cause a violation, or worsen an existing violation, of the CO standards. Although the protocol was designed to address federal standards, it has been recommended for use by several air pollution control districts in their CEQA analysis guidance documents and should also be valid for California standards because the key criterion (8-hour concentration) is similar: 9 ppm for the federal standard and 9.0 ppm for the state standard. Transportation conformity requirements for CO cease to apply after June 1, 2018 (20 years after the effective date of the U.S. EPA approval of the first 10-year maintenance plan and redesignation of the areas to attainment for the CO NAAQS). As a result, SACOG may reference the attached letter in Appendix C to show that conformity for CO no longer applies in this region; therefore, discussion of CO conformity does not apply to the region as of June 1, 2018.

Particulate Matter (PM)

In November 2015, the U.S. EPA released an updated version of *Transportation Conformity Guidance for Quantitative Hot-Spot Analyses in $PM_{2.5}$ and PM_{10} Non-attainment and Maintenance Areas* (Guidance) for quantifying the local air quality impacts of transportation projects and comparing them to the PM NAAQS (75 FR 79370). The U.S. EPA originally released the quantitative guidance in December 2010 and released a revised version in November 2013 to reflect the approval of EMFAC 2011 (Emission Factors) and U.S. EPA's 2012 PM NAAQS final rule. The November 2015 version reflects MOVES2014, and its subsequent minor revisions, such as MOVES2014a, to revise design value calculations to be more consistent with other U.S. EPA programs, and to reflect guidance implementation and experience in the field. Note that EMFAC, not MOVES, should be used for project hot-spot analysis in California. The Guidance requires a hot-spot analysis to be completed for a project of air quality concern (POAQC). The final rule in 40 CFR 93.123(b)(1) defines a POAQC as:

(i) New or expanded highway projects that have a significant number of or significant increase in diesel vehicles;

(ii) Projects affecting intersections that are at Level of Service (LOS) D, E, or F with a significant number of diesel vehicles, or those that will change to LOS

D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project;

(iii) New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location;

(iv) Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location; and

(iv) Projects in or affecting locations, areas, or categories of sites which are identified in the $PM_{2.5}$ and PM_{10} applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.

Table 16 below details why the project does not meet the definition of a POAQC. On August 24, 2011, the SACOG Regional Planning Partnership reviewed the project and concurred that the project is not a POAQC. In 2025, Caltrans requested that an updated Interagency Consultation occur for the project due to the lapse in time. On May 14, 2025, the SACOG Regional Planning Partnership reviewed the project during an online public meeting and concurred that the project is not a POAQC (Appendix A). Following completion of public circulation of the Draft EA, Caltrans submitted a conformity package to FHWA requesting a formal project-level conformity determination. FHWA completed this determination on May 18, 2026 (Appendix A).

Table 16. Project of Air Quality Concern Determination

U.S. EPA Definition of POAQC	Proposed Project
(i) New or expanded highway projects that have a significant number of or significant increase in diesel vehicles;	The proposed project is not a new or expanded highway project with a significant number of or significant increase in diesel vehicles. The proposed project is an interchange improvements project and is designed to improve current and future condition LOS. Based on the November 2024 Transportation Analysis Report for the project, the traffic volumes along U.S. 50 would be 78,100 average daily traffic (ADT) and would not exceed the 125,000 average daily traffic trips threshold for a POAQC. The project is also not an expanded highway project that would have a significant increase in the quantity of diesel vehicles using the facility. The project is designed to accommodate the

U.S. EPA Definition of POAQC	Proposed Project
	existing and projected future traffic volumes and ADT is not anticipated to change due to the project.
(ii) Projects affecting intersections that are at Level of Service D, E, or F with a significant number of diesel vehicles, or those that will change to Level of Service D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project;	Diesel/heavy truck traffic is expected to be 5% within the project area. The greatest number of trucks at an intersection is estimated to be 173, which is well below the general recommended threshold of 10,000 diesel trucks (i.e., 125,000 volume of which 8% is diesel). The truck percentage is projected to remain the same for both the opening year and the horizon year at approximately 5%.
(iii) New bus and rail terminals and transfer points than have a significant number of diesel vehicles congregating at a single location;	Bus and rail terminals and transfer points are not a design feature for this project.
(iv) Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location; and	Expanded bus and rail terminals and transfer points are not a design feature for this project.
(v) projects in or affecting locations, areas, or categories of sites which are identified in the PM_{10} or $PM_{2.5}$ applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.	The project is not in, nor will it affect, a location of violation or possible violation.

Additional Environmental Analysis – Operational Emissions

Particulate Matter (PM) Emissions Analysis

PM_{10} and $PM_{2.5}$ emissions were estimated for Baseline (2024), No-Build, and Build Alternative for the existing and horizon year (2049). As shown in Table 17 below, PM_{10} emissions during peak hour would increase in the horizon year when compared to existing peak hour PM_{10} emissions. PM_{10} emissions would increase by 20% by the horizon year under both No-Build conditions and Build conditions. PM_{10} emissions in the horizon year with the project would be comparable to emissions under No-Build conditions.

Table 17. PM Emissions during Peak Hour

Scenario/ Analysis Year	PM_{10} Emissions (lbs)	% change from Existing	% increase from No-Build to Build	$PM_{2.5}$ Emissions	% change from Existing	% increase from No-Build to Build
Baseline (Existing Conditions) 2024	30			6		
No-Build Future (2049)	36	+20%		7	+17%	
Future + Project (Build Conditions) 2049	36	+20%	0%	7	+17%	0%

Source: Fehr & Peers 2024

$PM_{2.5}$ emissions during peak hour would increase in the horizon year when compared to existing peak hour $PM_{2.5}$ emissions. $PM_{2.5}$ emissions would increase by 17% by the horizon year under both the No-Build and Build conditions. $PM_{2.5}$ emissions in the horizon year would be comparable to emissions under the No-Build conditions.

NO_2 Analysis

The U.S. EPA modified the NO_2 NAAQS to include a 1-hour standard of 100 parts per billion (ppb) in 2010. Currently there is no federal project-level nitrogen dioxide (NO_2) analysis requirement; however, NO_2 is among the near-road pollutants of concern. For project-level analysis, a NO_2 assessment protocol is not available; however, CT-EMFAC provides a NOx (combination of NO and NO_2) emissions estimate. Near-road NO_2 concentrations would likely be dominated by overall NO_x emissions. As long as ozone is present at relatively low (background) concentrations, most of the directly emitted NO would convert to NO_2 within a few seconds. Therefore, NO_x emissions overall can serve as a useful analysis surrogate for NO_2 (see the Caltrans Near-Road Nitrogen Dioxide Assessment (Caltrans 2012)).

NO_x emissions were estimated for the Baseline, No-Build, and Build alternatives for the existing year 2024 and horizon year 2049. The results can be seen in Table 18 below.

Table 18. NO_x Emissions during Peak Hour

Scenario/ Analysis Year	NOx Emissions (lbs)	% changefrom Existing	% increase from No-Build to Build
Baseline (Existing Conditions) 2024	59		
No-Build Future (2049)	14	-76%	
Future + Project (Build Conditions) 2049	14	-76%	0%

Source: CT-EMFAC2021

As shown above in Table 18, NO_x emissions during peak hour would decrease in the horizon year (2049) when compared to existing peak hour NO_x emissions. NO_x emissions would decrease by 76% by the horizon year under both No-Build and Build conditions. NO_x emissions in the horizon year would be comparable to emissions under No-Build conditions.

Mobile Source Air Toxic Analysis

FHWA released updated guidance in January 2023 (FHWA 2023) for determining when and how to address mobile source air toxic (MSAT) impacts in the NEPA process for transportation projects. FHWA identified three levels of analysis:

- No analysis for exempt projects or projects with no potential for meaningful MSAT effects;
- Qualitative analysis for projects with low potential MSAT effects; and
- Quantitative analysis to differentiate alternatives for projects with higher potential MSAT effects.

Projects with no impacts generally include those that a) qualify as a Categorical Exclusion under 23 CFR 771.117, b) qualify as exempt under the FCAA conformity rule under 40 CFR 93.126, and c) are not exempt, but have no meaningful impacts on traffic volumes or vehicle mix.

Projects that have low potential MSAT effects are those that serve to improve highway, transit, or freight operations or movement without adding substantial new capacity or creating a facility that is likely to substantially increase emissions. The large majority of projects fall into this category.

Projects with high potential MSAT effects include those that:

- Create or significantly alter a major intermodal freight facility that has the potential to concentrate high levels of Diesel Particulate Matter in a single location; or
- Create new or add significant capacity to urban highways such as interstates, urban arterials, or urban collector-distributor routes with traffic volumes where the annual average daily traffic (AADT) is projected to be in the range of 140,000 to 150,000, or greater, by the horizon year; and
- Are proposed to be located in proximity to populated areas or, in rural areas, in proximity to concentrations of vulnerable populations (i.e., schools, nursing homes, hospitals).

Given that the proposed project is an interchange improvement project and is designed to improve current and future condition LOS, and that design-year traffic volume for the modeled area is predicted to be approximately 78,100 average daily traffic under the Build Alternative, the proposed project falls within Category 2, a project with low potential MSAT effects. As such, a qualitative MSAT analysis is appropriate.

For each alternative (Build and No-Build), the amount of MSAT emitted would be proportional to the vehicle miles traveled (VMT), assuming that other variables (such as fleet mix) are the same for each alternative. As the project is shown to have a marginal increase in overall VMT compared to no-build conditions in the horizon year (Table 18), it is expected there would be a marginal increase in overall MSAT emissions as a result of implementation of the Build Alternative. In addition, emissions are virtually certain to be lower than present levels in the horizon year as a result of the U.S. EPA's national control programs that are projected to reduce annual MSAT emissions by 91 percent from 2010 to 2050 (U.S. Environmental Protection Agency 2025).

Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the U.S. EPA-projected reductions is so great (even after accounting for regional VMT growth) that MSAT emissions in the study area are likely to be lower in the future than they are today.

Additional Environmental Analysis – Construction Emissions

Build Alternative

Implementation of the project would result in construction activity that would generate air pollutant emissions. Construction activities, such as grading, excavation and travel on unpaved surfaces, would generate dust and can lead to elevated concentrations of PM_{10} and $PM_{2.5}$. The operation of construction equipment results in exhaust emissions. A substantial portion of the construction equipment is powered by diesel engines, which produce relatively high levels of NO_x emissions.

Significance thresholds applied to construction-related emissions are from the county Air Quality Management District (AQMD) document *Guide to Air Quality Assessment – Determining Significance of Air Quality Impacts Under the California Environmental Quality Act* (El Dorado County Air Quality Management District 2002).

Ozone Precursors

Construction-related ozone precursor emissions (ROG and NO_x) would be considered a significant impact if implementation of the proposed project generated emissions exceeding:

- 82 pounds per day (ppd) of ROG; or
- 82 ppd of NO_x

Air pollutant emissions associated with construction of the project were estimated using Caltrans Construction Emissions Tool, a spreadsheet-based model specifically designed to estimate emissions for various types of highway improvements projects (Appendix A). Table 19 below provides the results of the Caltrans Construction Emissions Tool for the project construction phase compared to thresholds stated above. As shown, the proposed project does not exceed thresholds for construction-related ozone precursors emissions.

Table 19. Maximum Daily Construction Emissions and Local Thresholds of Significance

Emissions	Caltrans Construction Emissions Tool Estimates	El Dorado AQMD Construction Emissions Summary
NO_x	25.2 lbs/day (daily average) 54.6 lbs/day (maximum daily average)	85 lbs/day
ROG (VOC)	4.1 lbs/day (daily average) 8.0 lbs/day (maximum daily average)	85 lbs/day

Source: El Dorado County Air Quality Management District 2002

Fugitive Particulate Matter

Section 4.2.3 of the *Guide to Air Quality Assessment – Determining Significance of Air Quality Impacts Under the California Environmental Quality Act* states:

> "Mass emissions of fugitive dust PM_{10} need not be quantified, and may be assumed to be not significant, if the project includes mitigation measures that will prevent visible dust beyond the project property lines, in compliance with Rule 403 of the South Coast AQMD. See Section C.6 in Appendix C-1, where the mitigation measures in Rule 403 are set forth."

Implementing the dust control measures described below under Avoidance, Minimization and/or Mitigation (**AQ-1**) would allow the project to be below the AQMD threshold of significance for construction-related particulate matter emissions.

Diesel Exhaust Particulate Matter

Diesel exhaust particulate matter has been identified as a toxic air contaminant. Section 4.2.1 of the *Guide to Air Quality Assessment – Determining Significance of Air Quality Impacts Under the California Environmental Quality Act* states:

> "…the District has determined that keeping total construction phase fuel use under the limits … will not result in a health risk from diesel particulate matter that exceeds the significance criteria for toxic air contaminants (1 in 1 million if T-BACT is not used; 10 in 1 million if T-BACT is used.)"

The significance criteria for construction equipment with Best Available Control Technology for toxic air contaminant (T-BACT) engines are 37,000 gallons of diesel fuel used during the construction phase. T-BACT engines are defined as those in 1996 or later model year equipment. The significance criteria for equipment fleets without T-BACT (pre-1996 model year) is 3,700 gallons of diesel fuel used.

The impacts of the project on diesel exhaust particulate matter emissions have been assessed by evaluating the amount of diesel fuel that would be consumed during construction. It is anticipated project construction would result in approximately 35,500 gallons of diesel fuel (Appendix A). It is assumed that each phase of project construction would use 1996 or later model year equipment engines; therefore, the project would not exceed significance criteria for diesel exhaust particulate matter emissions and no additional measures would be required.

Naturally Occurring Asbestos

The map, *Asbestos Review Areas – Western Slope – County of El Dorado – State of California*[3] shows areas within four categories considered to be subject to elevated risk of containing NOA:

- Found Area of NOA
- Quarter Mile Buffer for Found Area of NOA
- More Likely to Contain Asbestos (Department of Conservation Mines and Geology OPEN-FILE REPORT 2002-002)
- Quarter Mile Buffer for More Likely to Contain Asbestos or Fault Line

The project site is located in a "Quarter Mile Buffer for More Likely to Contain Asbestos or Fault Line." Based on these findings, additional monitoring and mitigation would be required to ensure that impacts relating to NOA are not significant (AQ-2).

[3] Asbestos Review Areas – Western Slope – County of El Dorado – State of California. https://www.eldoradocounty.ca.gov/files/assets/county/v/1/documents/government/air-quality/construction-dust-rules/asbestos-review-map-8-22-18.pdf

Construction Conformity

The project is anticipated to be in construction for approximately 2.5 years. Construction activities will not last for more than 5 years at one general location, so construction-related emissions do not need to be included in regional and project-level conformity analysis (40 CFR 93.123(c)(5)).

Avoidance, Minimization, and/or Mitigation Measures

AQ-1: During construction, all activities will apply standard BMPs to control dust during construction. These practices include, but are not limited to the following:

- Application of water on disturbed soils and unpaved roadways a minimum of three times per day
- Using track-out prevention devices at construction site access points
- Stabilizing construction area exit points
- Covering haul vehicles
- Restricting vehicles speeds on unpaved roads to 15 miles per hour
- Replanting disturbed areas as soon as practical

AQ-2: Prior to construction, an Asbestos Dust Mitigation Plan will be submitted to the Air Quality Management District for review and approval. All BMPs and minimization measures required by the AQMD will be adhered to throughout the duration of construction activities.

Noise

Regulatory Setting

NEPA of 1969 provides the broad basis for analyzing and abating highway traffic noise effects. The intent of this law is to promote the general welfare and to foster a healthy environment. The requirements for noise analysis and consideration of noise abatement under NEPA are described below.

National Environmental Policy Act and 23 CFR 772

For highway transportation projects with FHWA involvement (and Caltrans, as assigned), the Federal-Aid Highway Act of 1970 and its implementing regulations (23 CFR 772) govern the analysis and abatement of traffic noise impacts. The regulations require that potential noise impacts in areas of frequent human use be identified during the planning and design of a highway project. The regulations include noise abatement criteria (NAC) that are used to determine when a noise impact would occur. The NAC differ depending on the type of land use under analysis. For example, the NAC for residences (67 dBA) is lower than the NAC for commercial areas (72 dBA). Table 20 below lists the noise abatement criteria for use in the NEPA/23 CFR 772 analysis.

Table 20. Noise Abatement Criteria

Activity Category	NAC, Hourly A- Weighted Noise Level, Leq(h)	Description Of Activity Category
A	57 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B[1]	67 (Exterior)	Residential.
C[1]	67 (Exterior)	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52 (Interior)	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E	72 (Exterior)	Hotels, motels, offices, restaurants/bars, and other developed lands, properties, or activities not included in A–D or F.
F	No NAC—reporting only	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical, etc.), and warehousing.

Activity Category	NAC, Hourly A- Weighted Noise Level, Leq(h)	Description Of Activity Category
G	No NAC—reporting only	Undeveloped lands that are not permitted.

[1] Includes undeveloped lands permitted for this activity category.

Figure 22 below lists the noise levels of common activities to enable readers to compare the actual and predicted highway noise levels discussed in this section with common activities.

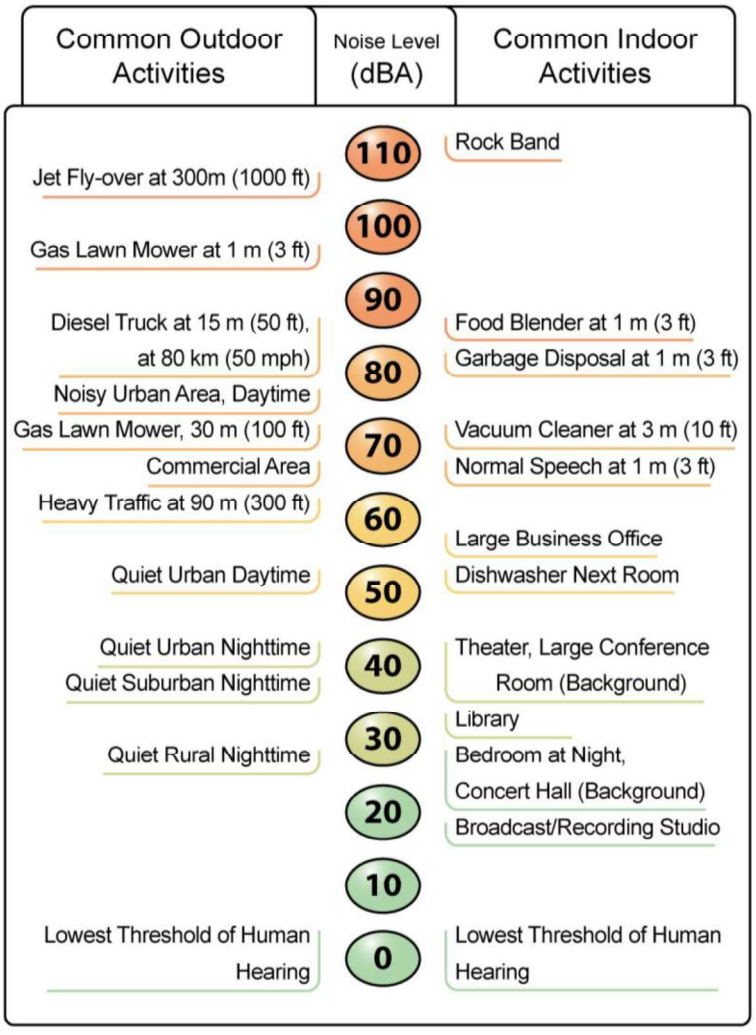

Figure 22. Noise Levels of Common Activities

According to the Caltrans *Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects, May 2011* (Caltrans 2002), a noise impact occurs when the predicted future noise level of a project substantially exceeds the existing noise level (defined as a 12 A-weighted decibels (dBA) or more) or when the future noise level with the project approaches or exceeds the NAC. A noise level is considered to approach the NAC if it is within 1 A-weighted decibels of the NAC.

If it is determined the project would result in noise impacts, then potential abatement measures must be considered. Noise abatement measures determined to be reasonable and feasible at the time of final design are incorporated into the project plans and specifications. This document discusses noise abatement measures that would likely be incorporated in the project.

The Caltrans *Traffic Noise Analysis Protocol* sets forth the criteria for determining when an abatement measure is reasonable and feasible (Caltrans 2002). Feasibility of noise abatement is basically an engineering concern. Noise abatement must be predicted to reduce noise by at least 5 dB at an impacted receptor to be considered feasible from an acoustical perspective. It must also be possible to design and construct the noise abatement measure for it to be considered feasible. Factors that affect the design and constructability of noise abatement include, but are not limited to, safety, barrier height, topography, drainage, access requirements for driveways, presence of local cross streets, underground utilities, other noise sources in the area, and maintenance of the abatement measure. The overall reasonableness of noise abatement is determined by the following three factors: 1) the noise reduction design goal of 7 dB at one or more impacted receptors; 2) the cost of noise abatement; and 3) the viewpoints of benefited receptors (including property owners and residents of the benefited receptors).

Affected Environment

The project Noise Study Report (NSR) was prepared by J. C. Brennan and Associates for the proposed project (J. C. Brennan and Associates 2009). In 2025, an addendum to the NSR was prepared by Dokken Engineering, which provided updated traffic noise modeling results based on the new input data from the 2024 TAR (Dokken Engineering 2025b). The area topography surrounding U.S. 50 generally slopes upward to the north, away from the highway, and slopes downward

to the south, away from the highway. Most, if not all, of the sensitive residential receivers (such as residences and adjacent businesses) in the project vicinity do not have a direct line-of-sight to U.S. 50. A field investigation was conducted to identify land uses that could be subject to traffic and construction noise impacts from the proposed project. Single-family residences, a day care, active sports area (tennis courts), a church and several commercial facilities were identified.

Four short-term measurement locations were selected to represent major developed areas within the project area (Figure 23). Short-term monitoring was conducted at both Activity Category B, C and D land uses, described above in Table 20. Two long-term noise level measurements (24 hour) sites were selected to capture the day/night noise level pattern in the project area at sensitive receptors such as residences and businesses.

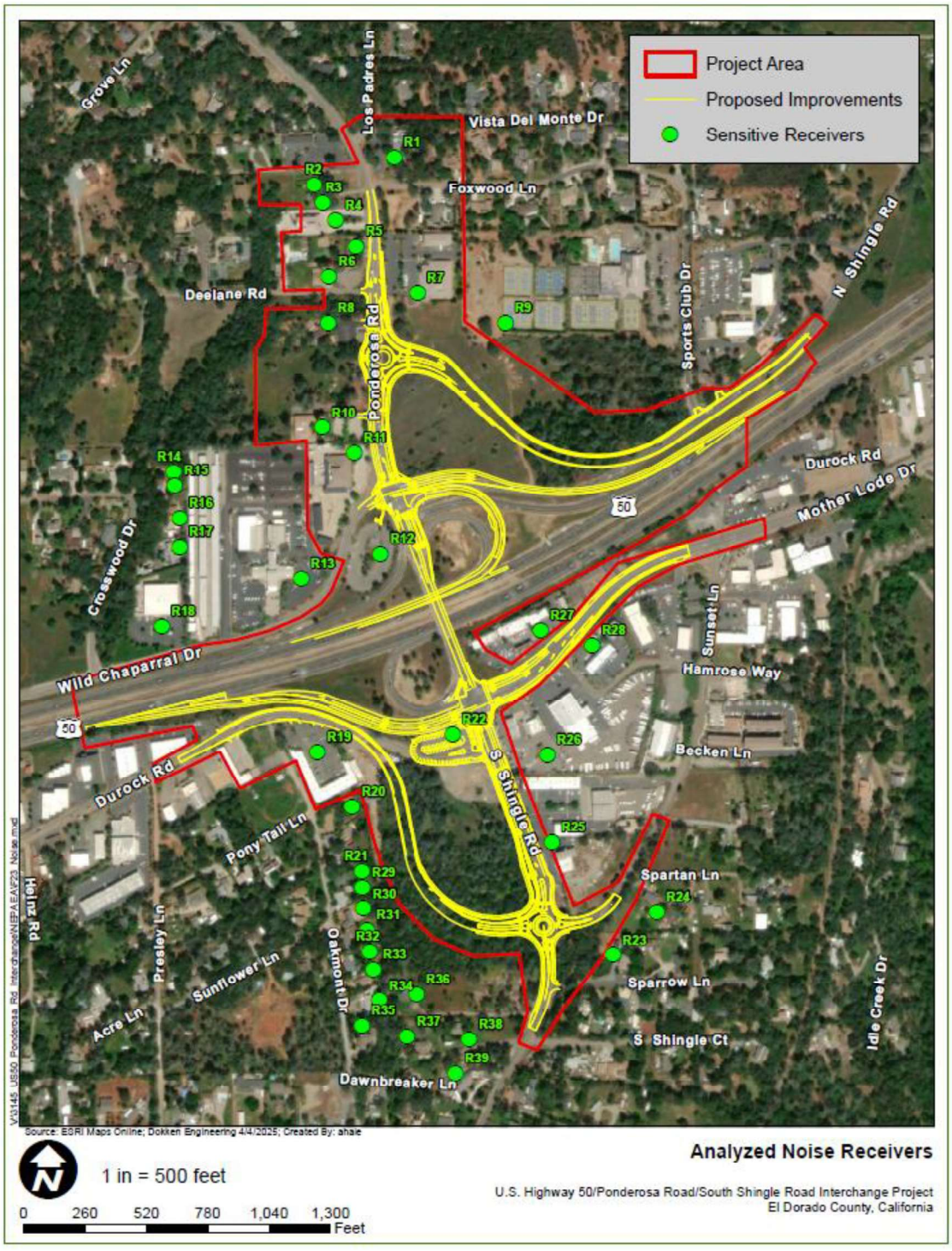

Figure 23. Analyzed Noise Receivers

Short-term measurement locations were selected to serve as representative modeling locations. Existing background noise levels at sensitive residential receptors were measured to range between 32 dBA Leq(h) to 56 dBA Leq(h) over a 24-hour period. Noise levels at commercial land uses were measured to range between 61-65 dBA Leq(h) during daytime short-term noise level measurements. Traffic on U.S. 50 and surface streets was classified and counted during short-term noise measurements. Vehicles were classified as automobiles, medium-duty trucks, or heavy-duty trucks. An automobile was defined as a vehicle with two axles and four tires that are designed primarily to carry passengers. Small vans and light trucks were included in this category. Medium-duty trucks included all cargo vehicles with two axles and six tires. Heavy-duty trucks included all vehicles with three or more axles. The posted speed on U.S. 50 was 65 mph.

Environmental Consequences

Under 23 CFR 772.7, projects are categorized as Type I, Type II, or Type III projects. As detailed in 23 CFR 772, the project is specifically defined as a Type I project, as Type I projects include:

> "2. The physical alteration of an existing highway where there is:
>
> a. Substantial horizontal alteration. A project that halves the distance between the traffic noise source and the closest receptor between the existing condition to the future build condition"

Under this definition, if a project is determined to be a Type I project, the entire project area as defined in the environmental document is a Type I project. This project proposes to realign frontage roads at Durock Road and North Shingle Road; therefore, it is considered a Type I project. 23 CFR 772 provides procedures for preparing operational and construction noise studies and evaluating noise abatement considered for federal and federal-aid highway projects.

Permanent Impacts

Traffic noise levels were predicted using the FHWA Traffic Noise Model Version 2.5 (TNM 2.5). Key inputs to the traffic noise model were the locations of roadways, shielding features, ground type, and receivers. Model locations are depicted in Figure 22 above.

Traffic noise was evaluated under existing conditions, horizon year 2049 No-Build conditions, and horizon year 2049 conditions with the project alternative. Peak-hour traffic volumes and heavy truck percentages under existing and horizon year (2049) conditions were provided by the November 2024 TAR (Fehr & Peers 2024) for input into the traffic noise model.

The modeling results in Table 21 below indicate the project would not result in noise levels which would approach or exceed the NAC criteria of 67 dBA Leq(h) at any of the Activity Category B receptors. Additionally, none of the project-related increases in noise levels exceed the 12 dBA Leq(h) threshold required before consideration of noise abatement. Therefore, no noise abatement consideration is warranted based upon the protocol criteria.

Noise levels would approach or exceed the NAC criteria of 72 dBA Leq(h) at one of the Activity Category C receptors (R9) and one of the Activity Category E receptors (R28). However, these receptors represent a tennis court of a sport club and a restaurant outdoor seating area, respectively and would not warrant consideration of noise abatement.

Table 21. Predicted Future Noise - No-Build vs. Build Alternative

Receiver I.D.	Barrier I.D.	Land Use	Number of Dwelling Units	Address	Existing Noise Level $L_{eq}(h)$, dBA	US-50 / Ponderosa Road Interchange Future Worst Hour Noise Levels - $L_{eq}(h)$, dBA				
						Design Year (2035), No Project Noise Levels $L_{eq}(h)$, dBA	Design Year (2035), Alternative 1 $L_{eq}(h)$, dBA	Noise Increase (+) or Decrease (-) Over Existing	Activity Category (NAC)	Impact Type
R1	-	Preschool Playground	0	3841 Ponderosa	63	64	63	0	C	None
R2	-	Residential	1	3850 Ponderosa	61	61	61	0	B	None
R3	-	Residential	1	3850 Ponderosa	60	61	60	0	B	None
R4	-	Fire station	0	3860 Ponderosa	62	63	62	0	B	None
R5	-	Residential	1	3870 Ponderosa	65	66	65	0	B	None
R6	-	Active Sports/Basketball	0	3880 Ponderosa	59	60	59	0	C	None
R7	-	County of El Dorado Office	0	3883 Ponderosa	64	65	65	1	E	None
R8	-	Residential/Daycare Playground	1	3900 Ponderosa	59	60	58	-1	C	None
R9	-	Active Sports/Tennis	0	4242 Sports Club	64	65	66	2	C	A/E
R10	-	Tattoo Shop	0	3932 Ponderosa	62	63	64	2	C	None
R11	-	Corporate Office	0	4101 Wild Chapparal Dr	66	67	68	2	E	None
R12	-	Parking Lot	0	4181 Wild Chapparal Dr	70	71	70	0	F	None
R13	-	Car Dealership	0	4045 Wild Chapparal Dr	72	73	73	1	F	None
R14	-	Residential	1	3900 Block Cross Wood Dr	55	56	56	1	B	None
R15	-	Residential	1	3900 Block Cross Wood Dr	59	60	60	1	B	None
R16	-	Residential	1	3900 Block Cross Wood Dr	55	56	55	0	B	None
R17	-	Residential	1	3900 Block Cross Wood Dr	55	56	56	1	B	None
R18	-	Auto Body Shop	0	4031 Wild Chapparal Dr	74	75	75	1	F	None
R19	-	Retail Facilities	0	4050 Durock	68	69	69	1	F	None

Receiver I.D.	Barrier I.D.	Land Use	Number of Dwelling Units	Address	Existing Noise Level $L_{eq}(h)$, dBA	US-50 / Ponderosa Road Interchange Future Worst Hour Noise Levels - $L_{eq}(h)$, dBA				
						Design Year (2035), No Project Noise Levels $L_{eq}(h)$, dBA	Design Year (2035), Alterative 1 $L_{eq}(h)$, dBA	Noise Increase (+) or Decrease (-) Over Existing	Activity Category (NAC)	Impact Type
R20	-	Residential	1	4055 Oakmont Dr	58	59	62	4	B	None
R21	-	Residential	6	4083 Oakmont	56	58	61	5	B	None
R22	-	Parking Lot	0	4099 Durock Rd	70	72	71	1	F	None
R23	-	Residential	1	4161 Sparrow	59	60	60	1	B	None
R24	-	Residential	1	4210 Spartan Ln	57	58	58	1	B	None
R25	-	Retail Facilities	0	4131 S. Shingle	65	66	67	2	F	None
R26	-	Car Dealership	0	4050 Mother Lode Dr	62	64	64	2	F	None
R27	-	Restaurant and Services	0	4021 Mother Lode	68	69	69	1	E	None
R28	-	Restaurant and Services	0	4056 Mother Lode	70	71	71	1	E	A/E
R29	-	Residential	1	4087 Oakmont Dr	58	59	62	4	B	None
R30	-	Residential	1	4093 Oakmont Dr	57	58	61	4	B	None
R31	-	Residential	1	4101 Oakmont Dr	56	58	60	4	B	None
R32	-	Residential	1	4107 Oakmont Dr	56	58	60	4	B	None
R33	-	Residential	1	4109 Oakmont Dr	56	57	59	3	B	None
R34	-	Residential	1	4121 Oakmont Dr	55	56	57	2	B	None
R35	-	Residential	1	4153 Oakmont Dr	57	58	58	1	B	None
R36	-	Residential	1	4200 S Shingle Rd	58	59	60	2	B	None
R37	-	Residential	1	4000 Dawnbreaker Ln	56	57	58	2	B	None
R38	-	Residential	1	4210 S Shingle Rd	60	61	61	1	B	None
R39	-	Residential	1	4230 S Shingle Rd	59	60	59	0	B	None

Note: A/E= Future noise conditions approach or exceed the Noise Abatement Criteria

Temporary Impacts

During construction of the project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Construction noise is regulated by Caltrans Standard Specifications Section 14-8, "Noise and Vibration," which states that noise levels generated during construction will comply with applicable local, state, and federal regulations, and that all equipment will be fitted with adequate mufflers according to the manufacturers' specifications.

Construction equipment is expected to generate noise levels ranging from 70 to 90 dB at a distance of 50 feet, and noise produced by construction equipment would be reduced over distance at a rate of about 6 dB per doubling of distance.

During construction, traffic noise generated by approaching traffic would be reduced due to a reduction in speed required by working road crews. Conversely, traffic noise levels of vehicles leaving the construction area would be slightly higher than normal due to acceleration. The net effect of the accelerating and decelerating traffic upon noise would not be appreciable. The most important project-generated noise source would be truck traffic associated with transport of heavy materials and equipment and construction equipment.

It is expected that the construction noise during the nighttime periods could result in a substantial noise impact; however, with the inclusion of the measures described below (NOI-1 through NOI-3), these impacts would be reduced to a less than substantial level. To the greatest extent possible, the nighttime construction work should be limited to the portion of the project site furthest from the residences.

Avoidance, Minimization, and/or Abatement Measures

As discussed above, the project would not result in any operational noise impacts; therefore, abatement measures are not necessary for operational noise. The contractor will adhere to the following measures to minimize construction-generated noise.

NOI-1: All equipment will have sound-control devices that are no less effective than those provided on the original equipment. No equipment will have an unmuffled exhaust.

NOI-2: The contractor will implement appropriate additional noise minimization measures, including changing the location of stationary construction equipment, turning off idling equipment, rescheduling construction activity, notifying adjacent residents in advance of construction work, and installing acoustic barriers around stationary construction noise sources.

NOI-3: Construction will take place between the hours of 7 a.m. and 7 p.m., Monday through Friday, and 8 a.m. and 5 p.m. on weekends and federally recognized holidays. Exceptions are allowed if it can be shown that construction beyond these times is necessary to alleviate traffic congestion and/or safety hazards.

Biological Environment

Discussion in the following sections summarizes the Natural Environment Study (NES) that was prepared for the proposed project in January 2009 and then updated in July of 2015 (Susan Sanders Biological Consulting 2009a; Dokken Engineering 2015). The Biological Study Area (BSA) was established as the area within which permanent and temporary project impacts (e.g. cut slopes, fill areas, temporary access roads, construction staging areas, etc.) could potentially occur. All potential project-related impacts are included in this area. The biological environment is divided into the following categories: natural communities, wetlands and other waters, plant species, animal species, threatened and endangered species, and invasive species. Biological investigations for the proposed project were guided by correspondence with the relevant resource agencies.

NATURAL COMMUNITIES

Regulatory Setting

This section of the document discusses Natural Communities of Concern. The focus of this section is on biological communities, not individual plant or animal species. This section also includes information on wildlife corridors and habitat fragmentation. Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value.

Habitat areas that have been designated as critical habitat under the Federal Endangered Species Act are discussed below in the Threatened and Endangered Species section. Wetlands and Other Waters are also discussed below.

Affected Environment

In 2009, a NES and Biological Assessment was prepared by Susan Sanders Biological Consulting for the U.S.-50/Ponderosa Road/South Shingle Road Interchange Improvements Project (Susan Sanders Biological Consulting 2009a, 2009b). In 2015, an Addendum to the 2008 NES was prepared by Dokken Engineering biologist Angela Scudiere. In 2024, an addendum to the 2008 NES and 2015 NES Addendum was prepared by Dokken Engineering biologist Hanna Sheldon. The 2024 NES Addendum updated the special status species lists and resurveyed the project area to verify that the findings and conclusions described in the 2008 NES and 2015 NES Addendum were still valid. In 2025, Dokken Engineering biologist Katie Jacobson prepared an additional addendum to the 2024 NES Addendum. This update reviewed and verified the special status species lists to confirm that the findings and conclusions of all previous documents remained valid. Across all versions, the conclusions were consistent: only one federal and state listed plant species, Layne's butterweed, may be affected by the proposed project.

This section summarizes the natural communities portion of the 2009 NES.

The BSA is located at approximately 1,520 feet (463 meters) in elevation on west and south draining slopes above the South Fork of the American River. The BSA for the project is a minimum of 100 feet from the roadway expanding to over 500 feet from some of the direct impact areas, which was approved by Caltrans technical staff in 2008, 2015, 2024, and 2025. Small, unnamed drainages in the BSA are tributaries to Weber Creek to the south and Deer Creek to the west. Typical seasonal flows are augmented by agricultural, urban, and residential water use and run-off during the dry summer and fall months. Topography within the BSA is nearly level to moderately sloping.

Most of the soils in the BSA are mapped as belonging to the Rescue series. Rescue soils are well drained upland soils that have sandy loam surface textures and often include rock outcrops or stony inclusions. The series is derived from gabbro-diorite (Dokken Engineering 2015, 2024c). The Rescue soils have surface horizons that are acidic and this often gives rise to distinct plant communities.

Rescue soils support chamise chaparral, gray pine and oak vegetation, as well as a number of special status plants. Other substrates in the area include the Argonaut series of upland soils. Placer diggings are found along seasonal drainages. The current landforms and vegetation largely reflect the human history and use of the area. These uses include residential and commercial buildings with horticultural landscape plantings, rural residential properties with irrigated fields, orchards, grazing, woodcutting, and historic placer mining.

The dominant native vegetation communities within the BSA are limited to a few stands of blue oak woodland and patches of chamise chaparral (Figure 24). Non-native vegetation also exists within the BSA, including landscaping and ruderal vegetation in disturbed areas. Annual grassland vegetation is also present as a disturbance-related community. Detailed descriptions of these habitats are provided below.

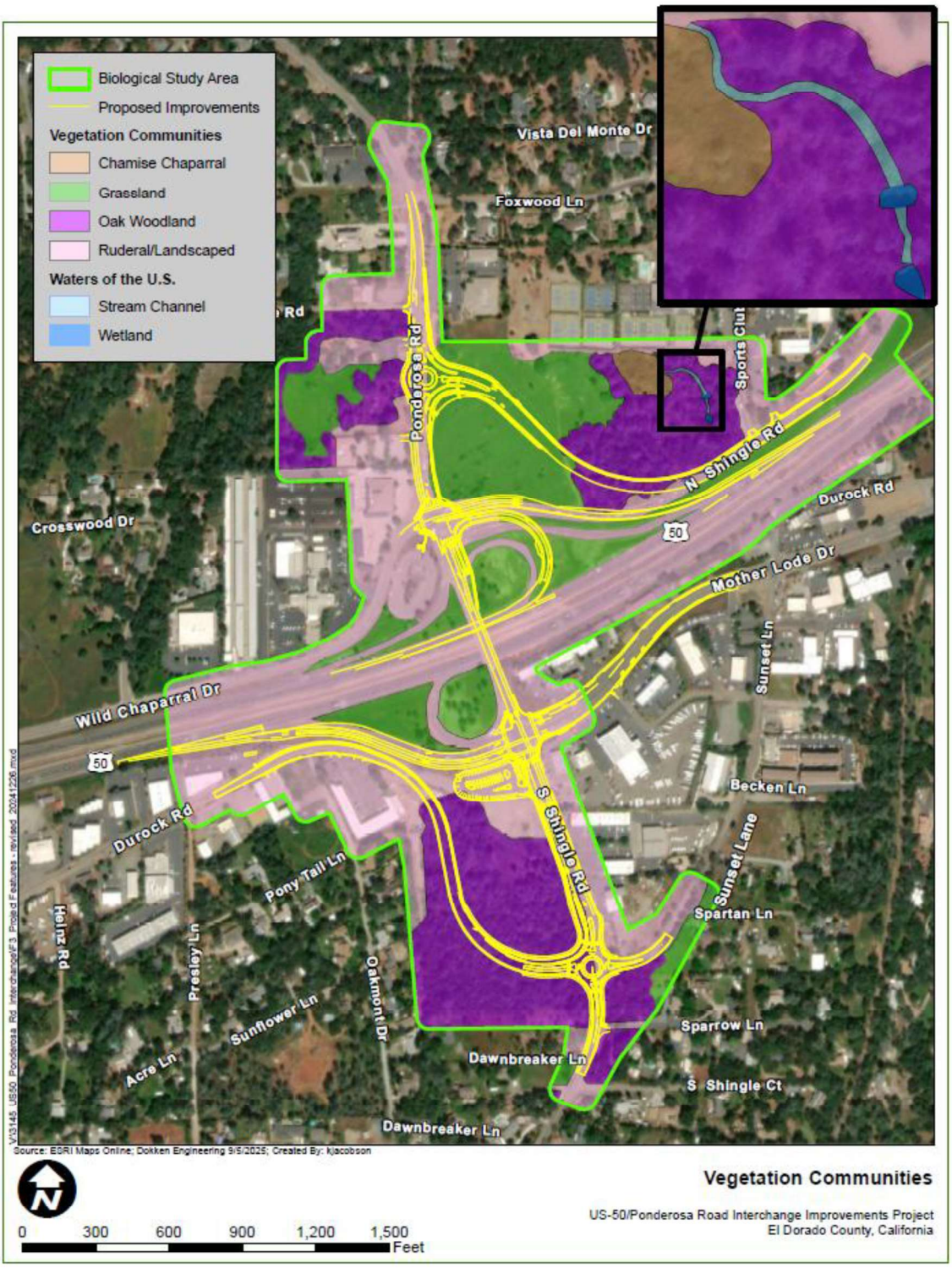

Figure 24. Vegetation Communities

Semi-Natural Herbaceous Alliance (Landscaping/Ruderal)

Most of the BSA is disturbed or urbanized and landscaped with horticultural species. Roadside plants include common knotweed (*Persicaria lapathifolia*), salsify (*Tragopogon dubius*), fluellin (*Kickxia spuria*), and Bermuda grass (*Cynodon dactylon*). Lawns and ornamental plantings are found around businesses and residences. An abandoned orchard of pear trees and ornamental catalpa were included as part of this vegetation mapping unit.

Exotic and invasive animal species that are characteristic of landscaped and ruderal areas of western El Dorado county include European starling (*Sturnus vulgaris),* house finch (*Haemorhous mexicanus*), house mouse (*Mus musculus*), and black rat (*Rattus rattus*). Typical urban/suburban predators include feral and free-ranging cats (*Felis catus*) and dogs (*Canis lupus familiaris*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), opossum (*Didelphis virginiana*), western scrub-jay (*Aphelocoma californica*), and American crow (*Corvus brachyrhynchos*).

Avena spp. – *Bromus* spp. Semi-Natural Herbaceous Alliance (Annual Grassland)

Grasslands are present in cleared fields, leveled and fallow building sites, and within the interchange cloverleaf. Soils are rocky, most likely because they were disturbed by land-leveling activities. The sparse establishment of shrubs, primarily coyote brush (*Baccharis pilularis*) or buckbrush (*Ceanothus cuneatus* var. *cuneatus*), in most of these areas suggests they are historically cleared woodlands. The annual grasses such as soft chess (*Bromus hordeaceus*), wild oat (*Avena fatua*), rip-gut brome (*Bromus diandrus*), medusa-head (*Elymus caput-medusae*), dogtail (*Cynosurus echinatus*), Italian ryegrass (*Festuca perennis*) and rattail fescue (*Festuca myuros*) that are dominant in the grasslands are thought to have arrived in California from the Mediterranean area along with Spanish colonizers (Dokken Engineering 2015, 2024, 2025). These species germinate after the fall rains, flower, and set seed before the summer dry season.

California native plants found in annual grasslands of the BSA are usually perennials that live from year to year, persisting during the dry season as underground bulbs or thickened rootstock. California poppy (*Eschscholzia californica*), fare-well-to-spring (*Clarkia amoena*) and two-color lupine (*Lupinus bicolor*) are native wildflowers that inhabit these annual grasslands.

Despite the dominance of introduced plants and their relative lack of vertical structure, annual grasslands support a higher diversity of animals than most developed or agricultural areas in western El Dorado county. Annual grassland within the BSA provide habitat for species such as western kingbirds (*Tyrannus verticalis*), lark sparrows (*Chondestes grammacus*), house finches (*Haemorhous mexicanus*), and lesser goldfinches (*Spinus psaltria*). Mule deer (*Odocoileus hemionus*), California ground squirrels (*Otospermophilus beecheyi*), California voles (*Microtus californicus*), California deer mice (*Peromyscus californicus*) and pocket gophers (*Thomomys bottae*) are also likely to occur in these habitats. These small mammals attract predators such as coyotes (*Canis latrans*), gray fox (*Urocyon cinereoargenteus*), red-tailed hawks (*Buteo jamaicensis*), and red-shouldered hawks (*Buteo lineatus*). Turkey vultures (*Cathartes aura*) and American crows (*Corvus brachyrhynchos*) were observed flying over annual grassland habitats in the BSA.

Blue Oak – California Foothill Pine Woodland Alliance (Blue Oak Woodland)

Blue oaks (*Quercus douglasii*) are the dominant trees in the woodland vegetation within the BSA. Other tree and shrubs species among the blue oak woodlands include interior live oak (*Quercus wislizeni*), foothill pine (*Pinus sabiniana*), manzanita (*Arctostaphylos manzanita*), redberry (*Rhamnus crocea*) and toyon (*Heteromeles arbutifolia*). The woodland areas are overgrown with poison oak (*Toxicodendron diversilobum*), a shrub with an often vine-like habitat in disturbed areas. Poison oak responds more quickly to the removal of grazing pressure (grazing pressure refers to the intensity of grazing animals (such as cattle, sheep, deer, or goats) feeding on vegetation in a given area) than other woodland shrubs and has the ability to resprout from damaged rootstock after soil disturbances. Grasses largely dominate the understory, with dogtail (*Cynosurus echinatus*) being most common in the deep shade.

More than 300 vertebrate species are known to use oak-dominated woodlands in California for reproduction, and additional species use oak woodlands as wintering grounds or during migration (Dokken Engineering 2015, 2024, 2025). Blue oaks, like all oak species, provide an invaluable high protein, food source for scores of wildlife species. Oak acorns are important food items for western gray squirrels, mule deer, wild turkeys, northern flickers, western scrub jays, and raccoons.

The acorn woodpecker (*Melanerpes formicivorus*) is an example of a habitat specialist, being entirely reliant on oak habitats and on acorns, the primary component of its diet. This woodpecker's range is relatively restricted, and it generally thrives only in areas that have multiple species of oak, as the reliability of acorn production is very cyclical and variable within each species.

Other birds that commonly occur in blue oak woodlands in El Dorado county include raptors such as great-horned owls (*Bubo virginianus*), northern pygmy owls (*Glaucidium californicum*), Cooper's hawks (*Astur cooperii*) and red-shouldered hawks (*Buteo lineatus*). Oak foliage and bark insects attract birds, such as bushtits (*Psaltriparus minimus*), ash-throated flycatchers (*Myiarchus cinerascens*), western tanagers (*Piranga ludoviciana*) and western kingbirds (*Tyrannus verticalis*). Oak trees also offer shade, shelter, and breeding substrate for many animals. Woodpeckers excavate nest holes in snags or in dead oak limbs. Other hole-cavity-nesting birds, such as western bluebirds (*Sialia mexicana*), subsequently use these cavities. Other species that might be found in blue oak woodlands of the project area include amphibians, such as California slender salamander (*Batrachoseps attenuatus*) and western toad (*Anaxyrus boreas*), with some reptiles represented by common kingsnake (*Lampropeltis getula*), western whiptail (*Cnemidophorus tigris*), and Gilbert's skink (*Plestiodon gilberti*). All of these animals are potential inhabitants of oak woodlands in the BSA for all or part of the year.

Adenostoma fasciculatum Shrubland Alliance (Chamise Chaparral)

The northeast quarter of the BSA supports a small patch of *Adenostoma fasciculatum* Shrubland Alliance. Chamise is a deep-rooted, drought-tolerant shrub typically marking the location of Rescue soils in this region of the foothills. While many stands of chamise chaparral are uniformly dominated by this species, the small stand of chaparral within the BSA is more diverse and contains openings formed around foothill pine (*Pinus sabiniana*) supporting mats of Sonoma sage (*Salvia sonomensis*) clusters of soaproot (*Chlorogalum pomeridianum*), and broken by other shrubs including yerba santa (*Eriodictyon californicum),* Lemmon's ceanothus (*Ceanothus lemmonii*), and buck brush (*Ceanothus cuneatus*). This chaparral habitat supports many of the locally occurring rare plants species.

A large number of animal species frequent chamise chaparral habitats because they provide abundant food supplies, shelter and nesting sites; some species can be found in their highest abundance in these communities.

Dusky-footed woodrats (*Neotoma fuscipes*), California ground squirrels (*Otospermophilus beecheyi*) and deer mice (*Peromyscus maniculatus*) can be very common in these habitats, as well as several snakes and carnivorous mammal species. A number of other larger mammals, such as coyotes (*Canis latrans*) and gray fox (*Urocyon cinereoargenteus*), occupy these dense thickets, where they can avoid human disturbance. Gopher snakes, western rattlesnakes, and California kingsnakes are commonly found in chamise chaparral habitats. Southern alligator lizards and western fence lizards are also common to abundant in these communities. The most common amphibian is California slender salamander (*Batrachoseps attenuatus*), which can be readily found during the rainy season, but retreats far underground in summer.

Numerous bird species either nest in chamise chaparral habitats or use them seasonally. Common breeding species include Anna's hummingbirds (*Calypte anna*), western scrub-jays (*Aphelocoma californica*), blue-gray gnatcatchers (*Polioptila caerulea*), wrentits (*Chamaea fasciata*), spotted towhees (*Pipilo maculatus*), California towhee (*Melozone crissalis*), and lazuli bunting (*Passerina amoena*). Birds can be particularly abundant in chamise chaparral in winter, and ruby-crowned kinglet and Hutton's vireo are typical wintering and resident insectivorous birds that primarily forage in evergreen foliage.

Environmental Consequences

Build Alternative

Direct and indirect impacts to plant communities under the Build Alternative are summarized in Table 22. Indirect effects to native trees and shrubs adjacent to proposed cut and fill slopes are also possible. A number of trees and shrubs are located very close to the proposed limits of cut and fill. Damage to the root systems of this vegetation may occur due to soil compaction during fill activities or due to direct root damage during cut activities. Trees and shrubs that may be indirectly impacted were considered to be directly impacted for the purposes of this analysis.

Table 22. Summary of Vegetation Removal

Habitat Type	Total Area in Acres	Direct Impact	Indirect Impact
Landscaping/Ruderal	62.57	6.50	0
Annual Grassland	21.27	5.70	4.68
Blue Oak Woodland	24.82	4.58	0
Chamise Chaparral	0.71	0	0

Landscaping/Ruderal Vegetation

Out of the existing 62.57 acres of landscaping and ruderal vegetation within the BSA, approximately 6.50 acres would be directly impacted by construction of the new road (Table 22 and Figure 24 above). Indirect impacts are not anticipated. These nonnative vegetation types generally do not support high numbers of native plants or animals and loss or disturbance within the project area is not considered an adverse impact.

Annual Grasslands

Of an existing 21.27 acres of annual grassland within the BSA, approximately 5.70 acres would be directly impacted by construction of the new road and approximately 4.68 acres would be indirectly impacted (Table 22 and Figure 24 above). The direct and indirect impacts to this habitat type within the BSA would not be considered an adverse impact because annual grasslands mostly comprise nonnative species, and they are widespread in the foothills of El Dorado county.

Blue Oak Woodland

Of an existing 24.82 acres of blue oak woodland within the BSA, approximately 4.58 acres would be directly impacted by construction of the new road (Table 22 and Figure 24 above). Indirect impacts are not anticipated. The direct loss of 4.58 acres of this habitat type would not be considered an adverse impact since the El Dorado County Oak Woodland Management Plan (OWMP) states that when oak canopy removal is necessary to complete County of El Dorado CIP projects, such projects are exempt from the canopy retention and replacement standards. However, the County of El Dorado will implement BIO-1 through BIO-8, described below.

Chamise Chaparral

There would be no direct or indirect impacts to chamise chaparral under the Build Alternative.

No-Build Alternative

Under the No-Build Alternative, construction would not take place. Therefore, there would be no impacts to natural communities within the project area.

Avoidance, Minimization, and/or Mitigation Measures

BIO-1: County of El Dorado will adhere to all requirements within the County of El Dorado's Oak Resources Management Plan regarding tree removal prior to construction.

BIO-2: County of El Dorado will incorporate oaks as appropriate in the Landscaping and Revegetation Plan.

BIO-3: To the extent feasible, topsoil that is free of noxious weeds containing native seed stock will be stockpiled separately from subsoils. The soils will be used during revegetation upon completion of construction activities.

BIO-4: Trees to be impacted will be limited to only those necessary for (i.e., that cannot be avoided by the roadway improvement). Trees that are not within the direct alignment of project facilities or for which removal is not necessary due to safety issues will be avoided.

BIO-5: All native oak trees to remain in place within and adjacent to proposed ground disturbances will be designated as "Environmentally Sensitive Areas" (ESAs) and will be temporarily fenced with orange plastic construction (exclusion) fencing throughout all grading and construction activities. To the extent feasible, the exclusion fencing will be installed 6 feet outside the dripline of oak trees greater than 6 inches dbh, and will be staked a minimum of every 6 feet. The fencing is intended to prevent equipment operations in the proximity of protected trees that may compact soil, crush roots, or collide with the tree trunk and/or overhanging branches.

BIO-6: No construction equipment will be parked, stored or operated within 6 feet of any specimen tree dripline.

BIO-7: The Revegetation/Restoration Plan will be designed to minimize soil loss immediately after construction and to revegetate disturbed areas with appropriate native plants. The Revegetation/Restoration Plan will be implemented to compensate for the loss and/or disturbance of vegetation on the project site and areas cleared for access and construction staging areas. The Restoration Plan elements will be graphically depicted on final construction plans, including the location and extent of the dripline for all trees, type and location of any fencing, and equipment storage and staging areas outside of dripline areas.

BIO-8: Plants selected for revegetation will be native species appropriate for the project area and will not include any noxious or invasive weeds. Seeds and/or container-grown plants will be obtained from within the project area when feasible or alternatively from contract-growers using locally occurring native plants. Advance notice will be given to the suppliers or growers to ensure the required species are ready at the proposed planting time.

WETLANDS AND OTHER WATERS

Regulatory Setting

Wetlands and other waters 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 CWA (33 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 ordinary high water mark (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.

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 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 (LEDPA) 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 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 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.

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 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 Water Quality section for more details.

Affected Environment

A NES was prepared for this project in December of 2008. Dokken Engineering biologist Angela Scudiere performed updated biological surveys on June 24 and 25 and July 7, 2015, to re-evaluate the biological conditions within the project area. Updated biological surveys were performed on May 26, 2023, and June 29, 2023, by Dokken Engineering biologist Scott Salembier for the same purpose. The updated biological surveys determined that the project site conditions documented in the 2008 NES had not substantially changed since 2008; therefore, results related to the potential for wetland and water resources remain valid. This section summarizes the Wetlands and Other Waters portion of that document.

One intermittent stream and two wetlands, which are considered Waters of the U.S., are present within the BSA (Figure 24 above). The stream is defined by sediment transport and evidence of seasonally high water flows. The wetlands are found in the blue oak woodland and one of the ponds held water into the June survey period. They are fed by an intermittent drainage that collects run-off from a commercial property and the nearby chaparral community. Other roadside ditches are present that provide drainage for short periods after rainstorms.

Environmental Consequences

Build Alternative

There would be no direct impacts to Waters of the U.S. (i.e., channels and/or jurisdictional wetlands) under the Build Alternative. However, construction would occur in close proximity to the wetland at the northeastern portion of the BSA, with the toe of the slope approximately 10 feet from the boundary of the wetland. Earthmoving and grading may also occur in the vicinity of roadside ditches that convey water to downstream waterways, resulting in increased sediment loads, turbidity, and siltation if soils entered streams. Increased sedimentation could adversely affect aquatic resources, as could the accidental introduction of wash water, solvents, oil, chemical wastes, cement, or other pollutants. These indirect impacts are expected to be minor and short-term and would be minimized through the implementation of **SWR-1** and **SWR-2**, as well as **BIO-9** through **BIO-14**.

As there would be no direct fill or discharge to Waters of the U.S., as such, the project would not require a Section 404 permit or Section 401 Water Quality Certification. Additionally, the project complies with Executive Order 11990 regarding the protection of wetlands. Therefore, the Build Alternative is not expected to result in adverse impacts to wetlands or other waters.

No-Build Alternative

Under the No-Build Alternative, construction would not take place. Therefore, there would be no impacts to wetlands and other waters within the project area.

Avoidance, Minimization, and/or Mitigation Measures

The project would incorporate **SWR-1** and **SWR-2**, as described in the Water Quality and Stormwater Runoff section, and the following Biology avoidance, minimization, and/or mitigation measures:

BIO-9: Establish all waterways and aquatic features within the project area as ESAs. ESA exclusion fencing and silt fencing would be established at least 10 feet from the boundary of all waterways and aquatic features if ground-disturbing activities occur within 50 feet of any waterway or aquatic feature.

BMPs would be followed to minimize erosion and reduce sediments from entering channels and wetlands. All disturbed areas would be replanted upon completion of construction to stabilize soil.

BIO-10: Work would be conducted in accordance with the SWPPP and NPDES BMPs. The contractor would implement the measures listed in the Water Quality and Stormwater Run-off section as well as the following specific measures in order to minimize indirect impacts to nearby waters, wetlands, and aquatic life.

BIO-11: The contractor would exercise every reasonable precaution to protect drainages from pollution with fuels, oils, bitumen, calcium chloride, and other harmful materials. Construction byproducts and pollutants, such as oil, cement, and wash water, would be prevented from discharging into the drainage and would be collected and removed from the site.

BIO-12: Erosion control measures would be applied to all disturbed slopes, including the banks of the streambed. No non-native grasses would be used for erosion control. A combination of straw wattles and a planting of native riparian species shall be used for erosion control.

BIO-13: Silt fencing (or filter fabric) would be used to catch any short-term erosion or sedimentation that may inadvertently occur. Silt-fencing would be installed well above drainages or ponds. Straw bales would not be used for erosion control to avoid introduction of additional noxious weeds to the site, such as star thistle.

BIO-14: To minimize water quality impacts to the stream upon completion of the project, no direct discharge of run-off from newly constructed impervious surface would be allowed to flow directly to the drainage. Run-off from surfaces should be directed through stormwater interceptors or vegetated swales constructed at discharge points. These interceptors would remove oil, sediment, and other pollutants that might otherwise flow to downstream waterways.

PLANT SPECIES

Regulatory Setting

This section of the document discusses all federally and state protected special status plant species, including U.S. Fish and Wildlife Service (USFWS) candidate species. The regulatory requirements for FESA can be found at 16 USC Section 1531, et seq. See also 50 CFR Part 402.

The USFWS is responsible for the protection of federally listed 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). Please see the Threatened and Endangered Species section in this document for detailed information about these species.

State-listed plant species are formally designated as Threatened or Endangered under the California Endangered Species Act (CESA). These designations are made by the California Fish and Game Commission based on scientific evidence of declining populations, restricted ranges, or other significant threats. Once listed, species receive legal protections from "take," which includes actions such as killing, capturing, harming, or habitat destruction. CDFW is the lead agency responsible for administering CESA and oversees permitting, compliance, and conservation programs to aid in recovery. Protection measures for state-listed species often work in tandem with FESA requirements when a species is listed at both the state and federal levels.

The California Natural Diversity Database (CNDDB), maintained by CDFW, is a critical tool for tracking occurrences of rare, threatened, and endangered species across the state. Similarly, the California Native Plant Society (CNPS) maintains its own Inventory of Rare and Endangered Plants, which complements CDFW's regulatory efforts by identifying species of conservation concern that may not yet be formally listed. Together, these resources guide land-use planning, environmental review, and conservation strategies to protect California's biodiversity.

Affected Environment

A NES was prepared for this project in December of 2009 and a Biological Assessment was prepared in May of 2009 (Susan Sanders Biological Consulting 2009a and 2009b). Dokken Engineering biologist Angela Scudiere performed updated biological surveys on June 24 and 25 and July 7, 2015, to re-evaluate the biological conditions within the project area. Updated biological surveys were performed on May 26, 2023, and June 29, 2023, by Dokken Engineering biologist Scott Salembier for the same purpose. The updated biological surveys determined the biological environment remained consistent with the habitat, conditions and conclusions documented in the 2009 NES and 2015 NES Addendum; therefore, results related to the potential for special status plant species occurrence remain valid. In 2025, Dokken Engineering biologist Katie Jacobson prepared an addendum to the 2024 NES Addendum. (There are three addendums to the original 2009 NES: 2015 NES Addendum, 2024 NES Addendum and 2025 NES Addendum.) This update reviewed and verified the special status species lists to confirm that the findings and conclusions of all previous documents remained valid. Across all versions, the conclusions were consistent: only one state- and federally listed plant species, Layne's butterweed, may be affected by the proposed Project.

This section summarizes the Plant Species portion of the 2009 NES and subsequent Addendums.

The updated species lists obtained from USFWS, CDFW-CNDDB, and CNPS in 2015 confirmed no additional special status plant species beyond those already evaluated in the 2008 NES. Similarly, the updated species lists obtained from USFWS, CDFW-CNDDB, and CNPS in 2024 confirmed no additional special status plant species beyond those already evaluated in the 2015 NES Addendum and 2008 NES (Dokken Engineering 2025). A comprehensive species potential table is included in Appendix D, which provides evaluations for all plant species identified across all NES documents prepared for the project between 2009 and 2025.

Based on the updated species list results obtained from USFWS, CNPS and CNDDB in 2025, the following plant species that were not evaluated in the 2024 NES Addendum were identified in the 2025 NES Addendum:

- big-scale balsamroot (*Balsamorhiza macrolepis*)
- chaparral sedge (*Carex xerophila*)

- Nissenan manzanita (*Arctostaphylos nissenana*)
- oval-leaved viburnum (*Viburnum ellipticum*)
- Parry's horkelia (*Horkelia parryi*)
- Sanford's arrowhead (*Sagittaria sanfordii*)
- Sierra arching sedge (*Carex cyrtostachya*)
- spicate calycadenia (*Calycadenia spicata*)
- Tuolumne button-celery (*Eryngium pinnatisectum*)
- Van Zuuk's morning-glory (*Calystegia vanzuukiae*)

Based on habitat evaluations, site elevation, and distances from known occurrences, there is no potential for the following plant species to occur within the BSA or be affected by project activities:

- Chaparral sedge (*Carex xerophila*)
- Sanford's arrowhead (*Sagittaria sanfordii*)
- Sierra arching sedge (*Carex cyrtostachya*)
- Van Zuuk's morning-glory (*Calystegia vanzuukiae*)

A focused botanical survey report was not prepared. The plant species listed below in Table 23 were observed during the May and June 2023 rare plant/biological surveys and survey methods/results are described in the 2024 NES Amendment.

Table 23. Plant Species Observed within the BSA

Common Name	Scientific Name	Native (N) / Non-Native (X)
Common yarrow	*Achillea millefolium*	N
Chamise	*Adenostoma fasciculatum*	N
Barbed goat grass	*Aegilops triuncialis*	X [High][4]
Bigflower agoseris	*Agoseris grandiflora*	N
Bur chervil	*Anthriscus caucalis*	X
Indian manzanita	*Arctostaphylos mewukka*	N
Whiteleaf manzanita	*Arctostaphylos viscida*	N
Black sagebrush	*Artemisia arbuscula*	N
Wild oat	*Avena fatua*	X [Moderate][5]
Coyote brush	*Baccharis pilularis*	N
Black mustard	*Brassica nigra*	X [Moderate]
Little rattlesnake grass	*Briza minor*	X
Harvest brodiaea	*Brodiaea elegans*	N
Ripgut brome	*Bromus diandrus*	X [Moderate]
Soft chess	*Bromus hordeaceus*	X [Limited][6]
Italian thistle	*Carduus pycnocephalus*	X [Moderate]
Buckbrush	*Ceanothus cuneatus*	N
Lemmon's ceanothus	*Ceanothus lemmonii*	N
Woolyleaf ceanothus	*Ceanothus tomentosus*	N
Yellow star thistle	*Centaurea solstitialis*	X [High]
Fitch's tarweed	*Centromadia fitchii*	N
Common tarweed	*Centromadia pungens*	N
California redbud	*Cercis occidentalis*	N

[4] High California Invasive Plant Council (Cal-IPC) Rating: These species have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically.

[5] Moderate Cal-IPC Rating: These species have substantial and apparent-but generally not severe-ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment is generally dependent upon ecological disturbance. Ecological amplitude and distribution may range from limited to widespread.

[6] Limited Cal-IPC Rating: These species are invasive but their ecological impacts are minor on a statewide level or there was not enough information to justify a higher score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic.

Common Name	Scientific Name	Native (N) / Non-Native (X)
Wavyleaf soap plant	*Chlorogalum pomeridianum*	N
Chicory	*Cichorium intybus*	X
Wine cup clarkia	*Clarkia purpurea*	N
Elegant clarkia	*Clarkia unguiculata*	N
Field bindweed	*Convolvulus arvensis*	X
Hairy birds-beak	*Cordylanthus pilosus*	N
Turkey mullein	*Croton setiger*	N
Dogtail grass	*Cynosurus echinatus*	X [Moderate]
Queen Anne's lace	*Daucus carota*	X
Twining snakelily	*Dichelostemma volubile*	N
Stinkwort	*Dittrichia graveolens*	X [Moderate]
Medusa head	*Elymus caput-medusae*	X [High]
Blue wild rye	*Elymus glaucus*	N
Red-stemmed filaree	*Erodium cicutarium*	X [Limited]
Idaho fescue	*Festuca idahoensis*	N
Hoary coffeeberry	*Frangula californica* ssp. *tomentella*	N
Wall bedstraw	*Galium parisiense*	X
Graceful bedstraw	*Galium porrigens*	N
Great valley gumweed	*Grindelia camporum*	N
Toyon	*Heteromeles arbutifolia*	N
California barley	*Hordeum brachyantherum* ssp. *californicum*	N
Foxtail barley	*Hordeum murinum*	X [Moderate]
Common St. John's wort	*Hypericum perforatum*	X [Moderate]
Common cat's ear	*Hypochaeris radicata*	X [Moderate]
Prickly lettuce	*Lactuca serriola*	X
Hawk bit	*Leontodon saxatilis*	X
Pale flax	*Linum bienne*	X
Narrowleaf cottonrose	*Logfia gallica*	X
Hog fennel	*Lomatium utriculatum*	N
Chaparral honeysuckle	*Lonicera interrupta*	N
Birds foot trefoil	*Lotus corniculatus*	X
Annual lupine	*Lupinus bicolor*	N

Common Name	Scientific Name	Native (N) / Non-Native (X)
Common madia	*Madia elegans*	N
Grassy tarweed	*Madia gracilis*	N
Canary grass	*Phalaris californica*	N
Gray pine	*Pinus sabiniana*	N
English plantain	*Plantago lanceolata*	X [Limited]
Cherry plum	*Prunus cerasifera*	X [Limited]
California cudweed	*Pseudognaphalium californicum*	N
Blue oak	*Quercus douglasii*	N
Black oak	*Quercus kelloggii*	N
Interior live oak	*Quercus wislizeni*	N
Buckthorn	*Rhamnus cathartica*	X
Himalayan blackberry	*Rubus armeniacus*	X [High]
Curly dock	*Rumex crispus*	X [Limited]
Creeping sage	*Salvia sonomensis*	N
Annual knawel	*Scleranthus annuus*	X
Blessed milk thistle	*Silybum marianum*	X [Limited]
Foothill needle grass	*Stipa lepida*	N
Field hedge parsley	*Torilis arvensis*	X [Moderate]
Poison oak	*Toxicodendron diversilobum*	N
Rose clover	*Trifolium hirtum*	X [Limited]
Tomcat clover	*Trifolium willdenovii*	N
Hairy vetch	*Vicia villosa*	X
Winter vetch	*Vicia villosa ssp. varia*	X

The Sacramento Office of the USFWS was contacted on October 11, 2008, and then again on February 2, 2016, February 27, 2024, and May 2, 2025, to secure an updated official species list for the Shingle Springs USGS 7.5' quadrangle. The CDFW–California Natural Diversity Database (CNDDB) was queried on October 11, 2008, July 9, 2015, February 27, 2024, and again May 2, 2025, for documented occurrences of special status plants that have been recorded in the Shingle Springs USGS 7.5' quadrangle and in surrounding quadrangles (Clarksville, Coloma, Fiddletown, Folsom SE, Garden Valley, Latrobe, Pilot Hill, and Placerville).

The CNPS Rare Plant Inventory was searched on February 27, 2024, and again on May 2, 2025, for a list of special status plants that have potential to occur within the Shingle Springs USGS 7.5' quadrangle and in surrounding quadrangles (Clarksville, Coloma, Fiddletown, Folsom SE, Garden Valley, Latrobe, Pilot Hill, and Placerville). See Appendix D for updated 2025 species lists and comprehensive species potential table.

Based on the 2025 species lists described above (Appendix D), the following special status plant species could potentially occur within the project area based on suitable habitat: :

Big-scale balsamroot (*Balsamorhiza macrolepis*)

Big-scale balsamroot is not federal or state listed but has a California Rare Plant Rank (CRPR) of 1B.2. This species is a perennial herb inhabiting open grassy or rocky slopes and valleys within chaparral, cismontane woodland, valley and foothill grassland communities; sometimes occurs in serpentinite soils. This species flowers March to June. The BSA contains grassland and oak woodland habitat that could support individuals of this species. However, no individuals were observed during the 2008, 2015 or 2023 biological and rare plant surveys. There are also no CNDDB occurrences of the species documented within 10 miles of the BSA.

Layne's butterweed (*Packera layneae*)

Layne's butterweed (aka Layne's ragwort) is federally listed as threatened, state listed as rare and has a CRPR of 1B.2. This species is a perennial herb inhabiting rocky soils within chaparral and cismontane woodland communities, and flowers April to June. This species has a high potential for occurrence within the BSA, as populations were observed in the project area during the 2008 and 2015 biological surveys. On a subsequent survey in 2023, no plants were found in the project area. Layne's butterweed is discussed further detail in the Threatened and Endangered species section below.

Nissenan manzanita (*Arctostaphylos nissenana*)

Nissenan manzanita is not federal or state listed but has a CRPR of 1B.2. This species is a perennial evergreen shrub inhabiting open, rocky shale ridges, chaparral, woodland, and closed-cone coniferous forests. This species flowers February to March. The BSA contains marginal grassland habitat that could support individuals of this species. However, the species was not observed within the BSA during the 2008, 2015 or 2023 biological surveys and rare plant surveys.

Oval-leaved viburnum (*Viburnum ellipticum*)

Oval-leaved viburnum is not federal or state listed but has a CRPR of 2B.3. This species is a perennial deciduous shrub inhabiting chaparral, cismontane woodland, and lower montane coniferous forest. This species flowers May to June. The BSA contains marginal chamise chaparral habitat that may provide suitable habitat for this species. However, the species was not observed within the BSA during the 2008, 2015 or 2023 biological surveys and rare plant surveys. There are also no recent, nearby CNDDB occurrences documented within 10 miles of the BSA.

Parry's horkelia (*Horkelia parryi*)

Parry's horkelia is not federal or state listed but has a CRPR of 1B.2. This species is a perennial herb inhabiting openings within chaparral and cismontane woodland. This species is especially known within Ione soil formations but occurs on other soils. This species also flowers April to September. The BSA contains marginal chamise chaparral habitat that may provide suitable habitat for this species. However, the species was not observed within the BSA during the 2008, 2015 or 2023 biological surveys and rare plant surveys. There are also no recent, nearby CNDDB occurrences documented within 10 miles of the BSA.

Pine Hill ceanothus (*Ceanothus roderickii*)

Pine Hill ceanothus is federally listed as endangered, state listed as rare and has a CRPR of 1B.1. This species is an evergreen perennial shrub inhabiting rocky, gabbroic, or serpentine soils characterized by low concentrations of available potassium (K), phosphorus (P), sulfur (S), iron (Fe), and zinc (Zn) of chaparral, oak/pine woodland, and cismontane woodland communities. This species flowers April to June. The BSA contains some oak woodland and chamise chaparral habitat that could provide suitable habitat for this species. However, the species was not

observed within the BSA during the 2008, 2015 or 2023 biological surveys and rare plant surveys.

Spicate calycadenia (*Calycadenia spicata*)

Spicate calycadenia is not federal or state listed but has a CRPR of 1B.3. This species is an annual herb endemic to California inhabiting slopes in foothill woodland and valley grassland habitat communities. This species blooms May to September. The BSA contains some grassland and oak woodland habitat that could provide suitable habitat for this species. However, there are no documented CNDDB occurrences of the species within 10 miles of the BSA. The species was not observed during the 2008, 2015 or 2023 survey efforts.

Tuolumne button-celery (*Eryngium pinnatisectum*)

Tuolumne button-celery is not federal or state listed but has a CRPR of 1B.2. This species is an annual/perennial herb inhabiting vernal pools, swales, intermittent streams, cismontane woodlands, and lower montane coniferous forests. This species flowers May to August. The BSA has one intermittent stream channel (unknown name) that could provide suitable habitat for this species. However, there are no documented CNDDB occurrences of the species within 10 miles of the BSA. The species was not observed during the 2008, 2015 or 2023 survey efforts.

Environmental Consequences

Build Alternative

Layne’s butterweed has a high potential for occurrence within the BSA. As this plant species is federally and state listed, this species is discussed in detail in the Threatened and Endangered Species section below.

The BSA contains habitat suitable for big-scale balsamroot (*Balsamorhiza macrolepis*), Nissenan manzanita (*Arctostaphylos nissenana*), oval-leaved viburnum (*Viburnum ellipticum*), Parry's horkelia (*Horkelia parryi*), Pine Hill ceanothus (*Ceanothus roderickii*), spicate calycadenia (*Calycadenia spicata*), and Tuolumne button-celery (*Eryngium pinnatisectum*); however, there were no documented CNDDB occurrences of any species within 10 miles of the BSA and none of the species were observed during the 2008, 2015, or 2023 biological surveys and rare plant surveys. See Affected Environment section for more information on each

species. These species are presumed absent and would not be impacted by construction of the Build Alternative.

No-Build Alternative

Under the No-Build Alternative, construction would not take place. Therefore, there would be no impacts to special status plant species which could potentially occur within the BSA.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization and/or mitigation measures are needed for special status plant species.

ANIMAL SPECIES

Regulatory Setting

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

Federal laws and regulations relevant to wildlife include the following:

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

Under the California Endangered Species Act, state-listed species are wildlife formally designated as Threatened or Endangered. These designations are made by CDFW based on scientific evidence of declining populations, restricted ranges, or other significant threats. Once listed, species receive legal protections from "take," which includes actions such as killing, capturing, pursuing, hunting, or habitat destruction. CDFW is the lead agency responsible for administering CESA and

oversees permitting, compliance, and conservation programs to aid in recovery. Protection measures for state-listed wildlife often work in tandem with federal ESA requirements when a species is listed at both the state and federal levels.

State laws and regulations relevant to wildlife include the following:

- California Fish and Game Code Section 3503 and 3503.5: Bird and Raptors
- California Fish and Game Code Section 3513: Migratory Birds

Affected Environment

A NES was prepared for this project in 2009 by Susan Sanders Biological Consulting. Dokken Engineering biologist Angela Scudiere performed updated biological surveys on June 24 and 25 and July 7, 2015, to re-evaluate the biological conditions within the BSA. Updated biological surveys were performed on May 26, 2023, and June 29, 2023, by Dokken Engineering biologist Scott Salembier for the same purpose. The updated biological surveys determined the biological environment remained consistent with the habitat, conditions and conclusions documented in the 2008 NES and 2015 NES Addendum; therefore, results related to the potential for special status animal species occurrences remains valid. Prior to field surveys, updated special status species lists for the BSA were obtained from USFWS, NMFS, and CDFW–CNDDB.

The updated species lists obtained in 2015 confirmed no additional special status animal species beyond those already evaluated in the 2008 NES. A comprehensive species potential table is included in Appendix D, which provides evaluations for all wildlife species identified across all NES documents prepared for the project between 2009 and 2025.

Based on the results of the updated species lists obtained on February 27, 2024 from USFWS IPaC, CDFW CNDDB, and CNPS, the following species that were not evaluated in the 2015 NES Addendum were identified in the 2024 NES Addendum:

- American goshawk (*Accipiter atricapillus*) – CDFW Species of Special Concern
- Bald eagle (*Haliaeetus occidentalis*) – CDFW Fully Protected Species

- Burrowing owl (*Athene cunicularia*) – State Candidate Endangered and CDFW Species of Special Concern
- Coast horned lizard (*Phrynosoma blainvillii*) – CDFW Species of Special Concern
- Giant garter snake (*Thamnophis gigas*) – Federally and State Threatened
- Golden eagle (*Aquila chrysaetos*) – CDFW Fully Protected Species
- Grasshopper sparrow (*Ammodramus savannarum*) – CDFW Species of Special Concern
- Swainson's hawk (*Buteo swainsoni*) – State Threatened
- Western bumble bee (*Bombus occidentalis*) – State Candidate Endangered
- Western spadefoot (*Spea hammondii*) – Federally Proposed Threatened

However, based on habitat evaluations, site elevation, and distances from known occurrences, none of these species have the potential to occur within the BSA or be affected by project activities.

Based on the results of the updated species lists obtained on May 2, 2025, from USFWS IPaC, NMFS, CDFW–CNDDB, and CNPS, the following species that were not evaluated in the 2015 or 2024 NES Addendum were identified in the 2025 NES Addendum:

- Monarch butterfly (*Danaus plexippus*)
- Central Valley spring-run Chinook salmon (*Oncorhynchus tshawytscha) (Pop. 11*)

Based on habitat assessments, site elevation, past survey data, and proximity to known occurrences, none of these species are expected to be impacted by Project activities and are presumed absent from the site. Common native animal species that were observed within the BSA can be found in Table 24 below.

Table 24. Animal Species Observed within the BSA

Common Name	Scientific Name
BIRDS	
Acorn woodpecker	*Melanerpes formicivorus*
American crow	*Corvus brachyrhynchos*
American robin	*Turdus migratorius*
Ash-throated flycatcher	*Myiarchus cinerascens*
Bewick's wren	*Thryomanes bewickii*
Black phoebe	*Sayornis nigricans*
Brewer's blackbird	*Euphagus cyanocephalus*
Bushtit	*Psaltriparus minimus*
California towhee	*Melozone crissalis*
Hutton's vireo	*Vireo huttoni*
Mourning dove	*Zenaida macroura*
Northern flicker	*Colaptes auratus*
Oak titmouse	*Baeolophus inornatus*
Red-tailed hawk	*Buteo jamaicensis*
Spotted towhee	*Pipilo maculatus*
Turkey vulture	*Cathartes aura*
Western scrub-jay	*Aphelocoma californica*
Western tanager	*Piranga ludoviciana*
White-breasted nuthatch	*Sitta carolinensis*
Wood duck	*Aix sponsa*
AMPHIBIANS AND REPTILES	
Pacific treefrog	*Pseudacris regilla*
Western fence lizard	*Sceloporus occidentalis*
MAMMALS	
California ground squirrel	*Otospermophilus beecheyi*
Coyote	*Canis latrans*
Gray fox	*Urocyon cinereoargenteus*
Mule deer	*Odocoileus hemionus*
Western gray squirrel	*Sciurus griseus*

The Sacramento Office of the USFWS was contacted on October 11, 2008, and then again on February 2, 2016, February 27, 2024, and May 2, 2025, to secure an updated official species list for the Shingle Springs USGS 7.5' quadrangle.

The CDFW–CNDDB was queried on October 11, 2008, July 9, 2015, February 27, 2024, and again May 2, 2025, for documented occurrences of special status wildlife that have been recorded in the Shingle Springs USGS 7.5' quadrangle and in surrounding quadrangles (Clarksville, Coloma, Fiddletown, Folsom SE, Garden Valley, Latrobe, Pilot Hill, and Placerville). On May 2, 2025, the NMFS West Coast Region Species List was queried to identify ESA-listed anadromous fish, critical habitat, and essential fish habitat that may occur within the Shingle Springs USGS 7.5' quadrangle and the surrounding quadrangles (Clarksville, Coloma, Fiddletown, Folsom SE, Garden Valley, Latrobe, Pilot Hill, and Placerville). See Appendix D for updated 2025 species lists and comprehensive special potential table.

Suitable habitat is present within the BSA for the following special status animal species:

Western Mastiff Bat (*Eumops perotis californicus*)

The western mastiff bat, a CDFW Species of Special Concern (SSC), inhabits many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral. The BSA contains oak woodland habitat that may provide suitable roosting habitat for this species. However, there are no CNDDB occurrences of the species documented within 10 miles of the BSA. Due to lack of nearby occurrences, this species is presumed absent.

Environmental Consequences

Build Alternative

As discussed in the Affected Environment section above, the BSA contains suitable habitat for the western mastiff bat (*Eumops perotis californicus*). However, there are no CNDDB occurrences of the species documented within 10 miles of the BSA. This species is presumed absent and would not be impacted by construction of the Build Alternative.

No-Build Alternative

Under the No-Build Alternative, construction would not take place. Therefore, there would be no impacts to special status animal species that potentially could occur within the BSA.

Avoidance, Minimization, and/or Mitigation Measures

Native birds are protected by the MBTA and CFGC Section 3513. The implementation of **BIO-20** would avoid all potential impacts to migratory birds.

BIO-20: The construction contractor would avoid removing any vegetation during the nesting bird season (February 15–August 31). If vegetation must be removed within the breeding season, a pre-construction nesting bird survey must be conducted no more than 3 days prior to vegetation removal. The vegetation must be removed within 3 days from the nesting bird survey.

A minimum 100-foot no-disturbance buffer will be established around any active nest of migratory birds, and a minimum 300-foot no-disturbance buffer will be established around any nesting raptor species. The contractor must immediately stop work in the nesting area until the appropriate buffer is established and is prohibited from conducting work that could disturb the birds (as determined by a qualified biologist) in the buffer area until a qualified biologist determines the young have fledged. A reduced buffer can be established if determined appropriate by the project biologist and approved by CDFW.

THREATENED AND ENDANGERED SPECIES

Regulatory Setting

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 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 Biological Opinion with an Incidental Take Statement or a Letter of Concurrence. Section 3 of FESA defines take as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct."

Another federal law, the Magnuson-Stevens Fishery Conservation and Management Act of 1976 (MSA), as amended, 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.

Affected Environment

An NES was prepared for this project in December of 2009. Dokken Engineering biologist Angela Scudiere performed updated biological surveys on June 24 and 25 and July 7, 2015, to re-evaluate the biological conditions within the BSA. Updated biological surveys were performed on May 26, 2023, and June 29, 2023, by Dokken Engineering biologist Scott Salembier for the same purpose. The updated biological surveys determined the biological environment remained consistent with the habitat, conditions and conclusions documented in the 2008 NES and 2015 NES Addendum; therefore, results related to the potential for threatened and endangered species occurrences remain valid. Appendix D contains a comprehensive species potential table that evaluates all wildlife and plant species documented in the NES and NES Addendums prepared for the project between 2009 and 2025.

The following special status plant species were evaluated in the 2009 NES but are now federally listed:

- Pine Hill Ceanothus (*Ceanothus roderickii*)–federal endangered
- Stebbins' morning glory(*Calystegia stebbinsii*)–federal endangered

- Pine Hills Flannelbush (*Fremontodendron decumbens*)–federal endangered
- El Dorado Bedstraw (*Galium californicum* ssp*. sierrae*)–federal endangered

As discussed in the Plant Species section, none of these species were detected within the BSA during field surveys and there would be No Effect. Further discussion is not necessary.

Based on the updated species list results obtained in 2015 and 2024, the following threatened and endangered species that were not evaluated in the 2015 NES Addendum were identified in the 2024 NES Addendum; however, based on habitat evaluations, site elevation, and distances from known occurrences, none of these species have the potential to occur within the BSA or be affected by project activities. There would be No Effect; therefore, further discussion is not necessary.

- Burrowing owl (*Athene cunicularia*) – State Candidate Endangered (SCE)
- Giant garter snake (*Thamnophis gigas*) – Federally and State Threatened (FT/ST)
- Swainson's hawk (*Buteo swainsoni*) – State Threatened (ST)
- Western bumble bee (*Bombus occidentalis*) – State Candidate Endangered (SCE)
- Western spadefoot (*Spea hammondii*) – Federally Proposed Threatened (FPT)

Based on the updated species list obtained in 2025, the following threatened and endangered species were not evaluated in the 2024 NES Addendum:

- Monarch butterfly (*Danaus plexippus*) – Federal Proposed Threatened (FPT)
- Chinook salmon (*Oncorhynchus tshawytscha)* – California Central Valley spring-run DPS (Pop. 11) – Federal and State Threatened (FT/ST)
- Foothill yellow-legged frog (*Rana boylii)* – Federal and State Threatened (FT/ST)
- California Central Valley Steelhead (*Oncorhynchus mykiss*) – Federal Threatened (FT)

All four species are presumed absent since no milkweed species (host plant) for monarch butterfly were observed within the project area during the biological surveys and rare plant surveys and the project area lacks permanent aquatic habitat.

Therefore, there would be No Effect to the species and further discussion is not necessary.

The following special status animal species were evaluated in the 2008 NES but are now federally listed or are proposed to be federally listed:

- Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) – Federal Threatened (FT)
- Northwestern pond turtle (*Actinemys marmorata*) – Federal Proposed Threatened (FPT) and SSC

Elderberry shrubs, the valley elderberry longhorn beetle's host plant, were not identified anywhere in the project area during the botanical surveys. Pond turtles were observed at a small pond approximately 0.5 mile southwest of the project area during the May 26, 2008, field survey. They were also observed incidentally at the larger pond just west of South Shingle Springs Road during surveys performed for California red-legged frogs; however, no suitable ponds or other wetland habitats exist within the project area itself. Therefore, there is No Effect and no further discussion for either of these species is necessary.

A Biological Assessment (Susan Sanders Biological Consulting 2009) was prepared to assess effects of the proposed project on listed species that have the potential to occur within the project study area. In May and June of 2023, rare plant surveys were conducted by Dokken Engineering biologist Scott Salembier to determine the presence or absence of the previously identified population of Layne's butterweed (aka Layne's ragwort) within the BSA. This survey did not identify any populations of Layne's butterweed within the BSA. However, since the environmental conditions have remained unchanged and the species was observed during prior surveys, there is still potential for it to occur within the BSA and conclusions from the 2009 Biological Assessment are still valid. No new or increased impacts to biological resources are expected to occur beyond what was identified in the 2009 NES and 2009 Biological Assessment. In September of 2009 Caltrans initiated Section 7 consultation with the USFWS for the following species: Layne's butterweed and California red-legged frog.

Layne's Butterweed

Layne's butterweed*(Senecio layneae)* (aka Layne's ragwort), a federal threatened species, is a perennial herb in the sunflower family. Plants form clusters of dark green, strap-shaped leaves up to 10 inches long. Flowering stalks appear in May supporting several flower heads of yellow few-petaled daisy-like flowers. Layne's butterweed flowers in May and persists through the dry summer months by tough, drought resistant roots. Plants reproduce through the production of rosettes from the roots, often forming clusters of individuals arising from an initial recruit. Viable seed production is low, and reproduction and establishment from seed is likely to be a rare event.

Layne's butterweed is found in rocky areas within the chaparral plant communities, primarily on gabbro soils and occasionally on serpentine. It is locally distributed on Rescue series soils in El Dorado, Tuolumne, and Yuba counties. Most of the known population is found in western El Dorado county, while disjunct populations are found in the Red Hills of Tuolumne County and on Bureau of Land Management land in Yuba County. There are several known locations for the plant in the Shingle Springs and Cameron Park areas. Plants are found with buck brush, blue oak, foothill pine and California bay laurel, and are often associated with open, disturbed sites in chaparral or pine-oak woodlands, commonly occupying roadsides or abandoned trails. A large population of Layne's butterweed is found in the Cameron Park unit of the USFWS gabbro plants preserve within one mile of the BSA.

A single occurrence of Layne's butterweed was found within the BSA during the spring and early summer 2008 surveys. At the project site, the population of Layne's butterweed is found at the top of a slope along the road embankment of North Shingle Road near the intersection with Ponderosa Road. Forty-one rosettes were counted at the site; 10 individuals were in flower and fruit, while the remaining plants were vegetative. The population occurs along approximately 20 feet of road frontage, and occupies less than 100 square feet of the embankment.

In May and June of 2023, rare plant surveys were conducted by Dokken Engineering biologist Scott Salembier to determine the presence or absence of the previously identified population of Layne's butterweed within the BSA.

These surveys did not identify any populations of Layne's butterweed within the BSA. However, since the environmental conditions have remained unchanged and the species was observed during prior surveys, there is still potential for it to occur within the BSA; therefore, compliance with the mitigation measures in the 2010 Biological Opinion would still be required.

California Red-legged Frog

California red-legged frog (*Rana draytonii*), a federal threatened and state SSC, prefers sunlit ponds or quiet pools along streams and stream backwaters. Suitable red-legged frog habitat is characterized by relatively deep pools bordered by very dense emergent and riparian vegetation (willows, cattails, sedges) and large populations of aquatic invertebrates and small terrestrial vertebrates. Breeding adults are often associated with deep (greater than two feet), still or slow-moving water and dense, shrubby riparian or emergent. Floating masses of vegetation are also usually present (Dokken Engineering 2025).

Protocol surveys were performed between May 31 and July 17, 2008, for this species at a large pond approximately 0.5 mile south of the BSA, just west of South Shingle Road. Pursuant to USFWS guidelines, The surveys included daytime and nighttime surveys in both seasons over a seven-week period pursuant to USFWS guidelines. This study found only bullfrogs, an exotic species from east of the Rocky Mountains that has been established in California since the late 1800s (Dokken Engineering 2025). Based on the surveys and research conducted, this pond lacks the essential components of California red-legged frog spawning habitat, including dense bordering and emergent vegetation or floating rooted vegetation, water depth of 2.3 to 3.9 feet within 3.3 feet (1 meter) of the bank, complex, abundant aquatic invertebrate forage diversity for subadult and adult frogs, large populations of riparian-associated rodents such as voles, which is the essential forage for large adult frogs, and absence of predatory warm water fish. The protocol-level surveys indicated that California red-legged frogs are absent from the BSA and nearby ponds.

Environmental Consequences

Layne's Butterweed

The Build Alternative would result in the permanent loss of 0.01 acre of occupied habitat for Layne's butterweed. The loss of the Ponderosa Road population of Layne's butterweed, a federally threatened species, requires consultation with the USFWS under Section 7 of FESA. The Biological Assessment prepared to evaluate the two listed species, Layne's butterweed and California red-legged frog, was sent to the USFWS to initiate formal consultation.

The USFWS prepared a Biological Opinion which was received by the County of El Dorado on June 9, 2010 (Appendix E). This Biological Opinion documented USFWS' concurrence with the Biological Assessment that the project may affect, likely to adversely affect Layne's butterweed, however the proposed actions are not likely to jeopardize the continued existence of the species. This determination was based on the following:

1. Compared to the total area known to be occupied by Layne's butterweed (40,000 acre area in western El Dorado County), the loss of 0.01 acre is not significant.
2. The location of the Layne's butterweed occurrence is in an area determined not essential for the recovery of the species.
3. The project is located in the central portion of the species range and the loss of this occurrence would not alter the species' distribution.
4. Conservation measures being implemented by County of El Dorado.

These conservation measures are provided in the Avoidance, Minimization and/or Mitigation Measures section below (BIO-15 and BIO-16).

California Red-legged Frog

Focused surveys performed for the federally-listed California red-legged frog did not detect this species in or near the BSA. Therefore, USFWS determined that the project may affect, not likely to adversely affect the species.

Avoidance, Minimization, and/or Mitigation Measures

Layne's Butterweed Mitigation Measures

BIO-15: No less than 60 days prior to start of ground-disturbing project activities, the County of El Dorado will contribute $880.00 to the Bureau of Land Management for the enhancement of habitat to benefit Layne's butterweed. Under a phased construction plan, this measure will be implemented prior to construction of the phase that would impact the population of Layne's butterweed.

BIO-16: Prior to ground-disturbing activities, the on-site Layne's butterweed plants will be transplanted to the property recently acquired by the County of El Dorado, or to suitable habitat on property managed by the Bureau of Land Management within the Cameron Park Unit of the Pine Hill Preserve. Transplanting will occur in accordance with a Layne's Butterweed Transplant and Monitoring Plan that will be prepared by the County of El Dorado and submitted for review and approval by the USFWS no less than 60 days prior to start of ground-disturbing project activities. Under a phased construction plan, this measure will be implemented prior to construction of the phase that would impact the population of Layne's butterweed. The plan will include the following items:

1. Oversight of the transplanting by a qualified biologist.
2. Details on site preparation.
3. Transplant schedule and procedure.
4. Maintenance of the transplant site (including weed control and vegetation/trash removal).

5. Monitoring criteria (up to five years of monitoring) and remedial actions.

6. Success criteria.

7. Monitoring reporting requirements.

INVASIVE SPECIES

Regulatory Setting

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 U.S. 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 NEPA analysis for a proposed project (Dokken Engineering 2025).

Affected Environment

An NES was prepared for this project in December of 2008 and updated in July of 2015, May of 2024, and July of 2025. This section summarizes the Invasive Species portion of that document.

The disturbed and ruderal nature of much of the project area provides habitat for a variety of weedy plant species. Some of these species are listed under California CFR 4500 Noxious Weeds (Table 25). The specific purpose of CFR 4500 is to provide authority to the state to regulate the movement of the listed noxious weeds species into or within California.

Table 25. Weedy Plant Species Identified in the Project Study Area

Common Name	Scientific Name	Habitat
Skeleton weed	*Chondrilla juncea*	Grassland
Goat grass	*Aegilops triuncialis*	Grassland
Yellow star thistle	*Centaurea solstitialis*	Grassland/Ruderal
Italian thistle	*Carduus pycnocephalus*	Woodland
Medusa head	*Taeniatherum caput medusae*	Grassland
Puncture vine	*Tribulus terrestris*	Ruderal

In addition to the CFR 4500-listed noxious weed species discussed above, escaped horticultural species are represented in the natural plant communities. These include privet and periwinkle that have encroached from adjacent horticultural plantings into shaded stream banks. Himalayan blackberry was intentionally brought to California for a blackberry breeding program and escaped to colonize many California habitats. On the project site, it forms a thicket in the area of an abandoned orchard. Horehound was brought to the state by early settlers as a medicinal herb and is found in woodland and grassland habitats on the site.

Environmental Consequences

In compliance with the Executive Order on Invasive Species, EO 13112, and guidance from FHWA, landscaping and erosion control included in the project would not use species listed as invasive. Measures to avoid, minimize, and compensate for the introduction and spread of additional noxious weeds are discussed below.

Avoidance, Minimization, and/or Mitigation Measures

To reduce the risk of spreading noxious weeds, the following measures would be implemented:

BIO-17: In compliance with the Executive Order on Invasive Species, EO 13112, and subsequent guidance from the Federal Highway Administration, landscaping and erosion control included in the project will not use species listed as noxious weeds. In areas of particular sensitivity, extra precautions will be taken if invasive species are found in or adjacent to the construction areas.

These include the inspection and cleaning of construction equipment and eradication strategies to be implemented should an invasion occur.

BIO-18: To minimize the risk of introducing additional non-native species into the area, weed-free erosion control applications will be used. No dry-farmed straw will be used and certified weed-free straw will be required where erosion control straw is to be used. In addition, hydro-seed mulch or any other erosion control application must also be certified weed-free. If a revegetation seed mix is to be used, the mix will also be certified weed-free and contain native species appropriate for the project area.

BIO-19: All off-road equipment will cleaned of potential noxious weed sources (mud, vegetation) before entry into the project area, to help ensure noxious weeds are not introduced into the project area. The contractor will implement thorough cleaning methods for all equipment before entry. These methods will include high-pressure water hose cleaning, visual inspections, and certification of equipment cleanliness prior to and during construction to ensure that equipment is free of noxious weeds. Equipment will be considered free of soil, seeds, and other such debris when a visual inspection does not disclose such material. Disassembly of equipment components or specialized inspection tools is not required.

CHAPTER 3. COMMENTS AND COORDINATION

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

Scoping Process

Several alternatives were developed and considered by the U.S. 50/Ponderosa Interchange Improvement Project Development Team (PDT), which included El Dorado County Department of Transportation, Caltrans District 3 staff, along with engineering and environmental planning consultants: Dokken Engineering, Geocon Consultants, Inc., David Evans and Associates, Inc., Fehr & Peers Transportation Consultants, and PAR Environmental Services, Inc.. Viable alternatives (alternatives that meet the purpose and need of the proposed project) are discussed in Chapter 1 of the document.

A draft Initial Study with Proposed Mitigated Negative Declaration/Environmental Assessment was prepared in 2018 (El Dorado County Department of Transportation 2020) which analyzed Alternative 1, Alternative 2, and Alternative 3 for the proposed project. In March 2020, the El Dorado County Board of Supervisors approved the Initial Study with Proposed Mitigated Negative Declaration with the selection of Alternative 1, which is discussed throughout this environmental document.

Agency Consultation and Coordination

During the preparation of the technical studies for the project, extensive contacts, both formal and informal, were made with public agencies and local organizations with interest in the project (listed below).

INTERAGENCY MEETINGS ON BIOLOGICAL RESOURCES

The following is a summary of the informal consultation for special status plant Layne's butterweed that has occurred between the contractors (PAR Environmental Services [Jennifer Moore and Virginia Dains] and David Evans and Associates, Inc. [Mike Higgins]), the County of El Dorado (Jennifer Maxwell), Caltrans (Jason Meigs), and USFWS (Jeremiah Karuza). Additional coordination was conducted between Dokken Engineering and Caltrans.

- December 2, 2008: PAR Environmental Services received comments from the County of El Dorado and David Evans and Associates concerning possible mitigation strategies for Layne's butterweed. These comments were incorporated into the final NES and draft Mitigation Plan.
- December 4, 2008: Caltrans (Meigs) arranged a field meeting with USFWS (Karuza) and Dains to observe the population of Layne's butterweed in the project area, and to discuss possible mitigation strategies including translocation, research, and direct compensation. Meeting minutes were distributed to the PDT by PAR Environmental Services on December 4, 2008. Others in attendance were Maxwell, Higgins, Moore, and Chiea.
- January 12, 2009: Karuza sent an e-mail to Meigs regarding possible relocation strategies for Layne's butterweed. At that point, Karuza was still waiting for concurrence from CDFG (currently referred to as CDFW) on this strategy.
- January 22, 2009: Email from Meigs to PDT summarizing Karuza's e-mail regarding two possible options for mitigation including: Option 1-transplantation of the Ponderosa population to the Pine Hills Reserve; and Option 2-Habitat acquisition or in-lieu fees to be paid by the County of El Dorado. Karuza stated that USFWS does not favor Option 1, but he was waiting to hear from his supervisors if in-lieu fees were a possible option.

- February 24, 2009: Telephone conversation between Meigs and Karuza regarding the appropriate compensation for Layne's butterweed. The strategies that USFWS is comfortable with include the transplant and monitor option or a non-destructive scientific study that is not a one-time demographic study that would sacrifice the plant at the end, but one that would perpetuate the individual plant (s) in something more like a greenhouse study. USFWS would be unlikely to issue a formal Biological Opinion or a concurrence letter until the mitigation plan is complete enough to identify a transplant site, and have a fairly detailed transplant plan, a 5-year monitoring plan, and a commitment of funds by the applicant to pay for these measures.
- May and June 2023: Rare plant surveys were conducted by Dokken Engineering biologist Scott Salembier to determine the presence or absence of the previously identified population of Layne's butterweed within the project area. These surveys did not identify any populations of Layne's butterweed within the project area. However, since the environmental conditions have remained unchanged and the species was observed during prior surveys, there is still potential for it to occur within the project area; therefore, compliance with the mitigation measures in the 2009 Biological Opinion is still required.
- April 2024: Dokken Engineering submitted the NES Addendum to Caltrans. Caltrans approved the NES Addendum May 2024.
- July 2024: Dokken Engineering inquired regarding Section 7 Consultation/Biological Opinion update. Caltrans confirmed that updating the USFWS 2010 Biological Opinion is not necessary. The original measures included in the Biological Opinion are still valid. However, an additional measure requiring a rare plant survey prior to construction was added to the environmental document.

INTERAGENCY MEETINGS ON AIR QUALITY

On August 24, 2011, the SACOG Regional Planning Partnership reviewed the project and determined that it did not meet the criteria for a Project of Air Quality Concern (POAQC). Because of the time elapsed since that determination, Caltrans initiated updated interagency consultation in 2025. On May 14, 2025, the SACOG Regional Planning Partnership—comprising representatives from EPA, FHWA, and

SACOG—re-examined the project during an online public meeting and again concurred that the project is not a POAQC (see Appendix A). Following completion of public circulation of the Draft EA, Caltrans submitted a conformity package to FHWA requesting a formal project-level conformity determination. FHWA completed this determination on May 18, 2026 (Appendix A).

OTHER AGENCIES CONTACTED

The following is a list of federal, state and local agencies and organizations contacted in writing and/or by telephone/email during the preparation of this environmental document and its supporting studies.

Native American Heritage Commission

The Native American Heritage Commission (NAHC) was contacted on June 6, 2008, with a request for any Sacred Lands Files within the proposed project location and a list of Native American contacts. The NAHC responded on June 13, 2008, indicating the presence of one site (Boychuk Site) that might be impacted by the project. The NAHC also provided a list of Native American individuals and organizations that might have concerns with or interest in the proposed project. Research of the Boychuk Site proved that it was located on a completely different quadrangle than the proposed project. Personal communication with Katy Sanchez at the NAHC on June 16, 2008, confirmed that the Boychuk Site would not be impacted by the proposed project.

On December 7, 2023 a request form was sent to the NAHC in West Sacramento, requesting the NAHC review the Sacred Lands File (SLF) for any Native American cultural resources that might be affected by the project. In April 2024, the NAHC was contacted to inquire on the status of the review. The NAHC did not have a record of the December 2023 request; therefore, a new request was submitted on April 22, 2024. Pracilla Torres-Fuentes for the NAHC, replied in a letter dated May 6, 2024, that a review of the SLF was negative for the presence of known Native American cultural resources in the project area.

Shingle Springs Band of Miwok Indians

As the project Alternative had been selected, Kara Perry (Director of Site Protection) of Shingle Springs Band of Miwok Indians (SSBMI) (Tribe) requested a meeting with the project team in September 2023. An initial meeting was held on November 13, 2023, which reviewed the selected alternative and current design details. At the

meeting, Ms. Perry requested monthly virtual meetings with the County of El Dorado which occurred January 8, 2024, and February 12, 2024, with attendance from Ms. Perry and Andrew Godsey from the SSBMI.

A field visit was held on March 22, 2024, during which the SSBMI requested biological, revegetation, and oak mitigation reports and requested that any oaks removed for the project be provided to them as firewood. The County of El Dorado agreed. At that meeting, the Tribe declined participating in a survey of the APE.

February 2025: A meeting between Dokken Engineering, Caltrans, and the County of El Dorado occurred to discuss tribal monitoring. It was decided than an Archaeological Monitoring Area Plan and Memorandum of Understanding would be prepared to allow the Tribe to monitor ground-disturbing activities during construction. Consultation with the Tribe is ongoing.

Public Participation

An informational meeting was initially held on June 18, 2008, to present the project and receive public input on preliminary alternatives. Residents and business owners within a one-mile-radius of the project were sent mailings to notify them of the public meetings. Approximately 20 people attended this meeting. The County of El Dorado prepared a PowerPoint presentation that provided information on the project background, purpose, need and process through environmental clearance. The concerns voiced by the public included ROW acquisition, traffic, and questions on specific engineering alignments. Although some concerns were mentioned, the overall community reaction was very supportive of the project.

Pursuant to CEQA requirements, the proposed Mitigated Negative Declaration prepared for this project was circulated for 30 days, beginning on January 25, 2018, and ending on February 23, 2018. The El Dorado County Board of Supervisors adopted the Final Mitigated Negative Declaration in March of 2020. Additionally, a CEQA Addendum was prepared for the project in March of 2025 to address the design modifications introducing roundabouts at the intersection of Ponderosa Road and North Shingle Road, as well as at the intersection of South Shingle Road with Durock Road and Sunset Lane. This design change was based on additional traffic and air quality analyses, as well as considerations for public safety.

A public meeting for the project was held on Wednesday, March 19, 2025, from 6:00 to 7:00 PM. Representatives from the County of El Dorado, Dokken Engineering,

and Fehr & Peers delivered a presentation covering the project's history and background, status, key features, traffic analysis and operations, environmental considerations, geometric design/roundabouts, and the next steps in the project timeline. Approximately 50-70 members of the public attended the meeting. The CEQA Addendum was approved by the Board of Supervisors on April 1, 2025.

Pursuant to NEPA requirements, the Draft Environmental Assessment prepared for this project was circulated for 30 days, beginning on January 16, 2026, and ending on February 16, 2026. No comments were received during this period.

Public outreach is ongoing, and comments or questions about the project can be submitted to the El Dorado County Department of Transportation at the project website: https://www.eldoradocounty.ca.gov/Land-Use/County-Projects/Road-Transportation-Projects/U.S.-50Ponderosa-Rd.So.-Shingle-Rd.-Interchange-Improvement.

CHAPTER 4. LIST OF PREPARERS

California Department of Transportation

Caitlin Greenwood, Associate Environmental Planner. B.S. Environmental Science, California State University, Chico. 6 years' experience in performing environmental studies and document preparation. Contribution: Environmental document oversite review.

Erick Wulf, Associate Environmental Planner, Archaeology. B.A. Anthropology, California State University, Sacramento. M.A. Anthropology, California State University, Sacramento. 40 years' experience in performing environmental studies and document preparation. Contribution: Environmental document oversite review.

Maggie Ritter, Environmental Scientist, B. A. Anthropology, California State University, Chico, 18 years' experience in performing environmental studies, reviews, community involvement, and document preparation. Contribution: NEPA Quality Control Reviewer

Jonathan Edwards, Associate Environmental Planner, Natural Sciences. B.S. Biology, EEC, California State University, Sacramento. 7 years' experience in performing environmental studies and document preparation. Contribution: Environmental document oversite review.

Sean Cross, B.S. Civil Engineering, California State University Sacramento NPDES Coordinator, Transportation Engineer, Caltrans Environmental Engineering Branch Experience: 7 Years Design, 2 Years Construction, 15 Years NPDES/Stormwater Permit Compliance Contribution: Environmental Document Oversight (NPDES/Stormwater Permit Compliance)

County of El Dorado

Jon Balzer, Senior Civil Engineer. B.S. Civil Engineering, University of California, Berkeley. 21 years engineering experience, 11 years with El Dorado County Department of Transportation. Contribution: Environmental document oversight.

Dokken Engineering

Amy Bakker, Senior Environmental Planner. B.A. Environmental Science, California State University, Sacramento. 14 years' experience in performing environmental studies and document preparation. Contribution: Environmental document oversight and Community Impact Assessment Addendum.

Hanna Sheldon, Associate Environmental Planner. B.S. Animal Science, California Polytechnic State University, San Luis Obispo. 7 years' experience with conducting wildlife biology studies and surveys. Contribution: Natural Environment Study.

Michelle Campbell, Senior Archaeologist. B.A. Anthropology, Bates College; M.A. Anthropology, California State University, Sacramento. 20 years archaeological experience. Contribution: Supplemental HPSR/ASR.

Ken Chen, Associate Environmental Planner. B.S. Community and Regional Development, University of California, Davis. 8 years' experience with conducting air quality and noise studies. Contribution: Air Quality Technical Report Addendum and Noise Study Report Addendum.

Aliana Hale, Associate Environmental Planner. B.S. Environmental Geoscience, Texas A&M University. 5 years' experience in performing environmental studies and document preparation. Contribution: Environmental document preparation.

Fehr & Peers

David Stanek, P.E., Associate Engineer. B.S. Civil Engineering, University of California, Davis; M.S. Civil Engineering, University of California, Davis. 20 years' experience in transportation engineering. Contribution: Transportation Analysis Report.

Geocon Consultants

John E Juhrend, P.E., C.E.G., Senior Engineer. B.S. Engineering Geology; M.S. Civil Engineering. 40 years' experience in environmental assessments of transportation corridors and brownfields, industrial, commercial and residential properties. Contribution: Hazardous Waste ISA.

CHAPTER 5. DISTRIBUTION LIST

AT&T
Re: Utility Relocation
12824 Earhart Ave.
Auburn, CA 95602

California Department of Fish and Game Region 2
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95670

California Department of Transportation
District 3
Attention: Spencer Moran
703 B Street
Marysville, CA 95901

California Highway Patrol
Office of Special Projects
2555 1st Ave.
Sacramento, CA 94298

Comcast Cable
Re: Utility Relocation
1242 National Drive
Sacramento, CA 95834

California Highway Patrol
3031 LoHi Way
Placerville, CA 95667

County of El Dorado DOT
2850 Fairlane Court
Placerville, CA 95667

El Dorado County Transportation Commission
550 Main Street Suite C
Placerville, CA 95667

El Dorado Irrigation District
Re: Utility Relocation
2890 Mosquito Road
Placerville, CA 95667

Kara Perry
Director of Site Protection
Shingle Springs Band of Miwok Indians
kperry@ssband.org

Main Library in Placerville
345 Fairlane Court
Placerville, CA 95667

Office of Emergency Services
11030 White Rock Road, Suite 110
Rancho Cordova, CA 95670

Pacific Gas and Electric
Re: Utility Relocation
343 Sacramento Street
Auburn, CA 95603

Sacramento Area Council of Governments
300 S Street, Suite 300
Sacramento, CA 95816

State Clearinghouse (CEQA Submit)
P.O. Box 3044
Sacramento, CA 95812

U.S. Army Corps of Engineers
Regulatory Branch
1325 J Street
Sacramento, CA 95814

United State Fish and Wildlife Service
Sacramento Fish and Wildlife Office
2800 Cottage Way
Sacramento, CA 95825

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APPENDIX A. AIR QUALITY CONFORMITY DOCUMENTATION

Projects listed as "Project Development Only" are anticipated to begin early stages of development including project planning, design, preliminary engineering, environmental clearance, and ROW acquisition by 2044. Under the financial constraint requirements for forecasting revenues, the construction phase is not included in the Draft Plan. If/when additional revenues for these projects become available to cover full construction costs, these projects can be considered as part of an amendment to the MTP/SCS following a technical analysis and reviewing consistency with plan requirements.

ID	County	Status (Planned, Programmed or Project Development Only)	Lead Agency	Budget Category	Title	Description	Total Project Cost (2018 dollars)	Year of Expenditure Cost for planned projects	Completion Timing
ELD19234	ELD	Planned	El Dorado County	B- Road & Highway Capacity	Saratoga Wy. (Phase 2)	Phase 2 will widen the existing two-lane road to four-lanes from the Sacramento County line to El Dorado Hills Boulevard with full curb, gutter and sidewalk on the north side only. Environmental clearance and preliminary engineering will be completed under Phase 1 project CIP#71324.	3,300,000	4,779,384	By 2035
ELD19181	ELD	Planned	El Dorado County	B- Road & Highway Capacity	US 50/Cambridge Rd Interchange	Phase 1 Improvements to Cambridge Road Interchange. Phase I project consists of widening the existing eastbound and westbound off-ramps; addition of new westbound on-ramp from southbound Cambridge Road; reconstruction of the local intersections to provide for additional capacity, both turning and through; and the installation of traffic signals at eastbound ramp terminal intersection. Also includes preliminary engineering for Phase 2 improvements to Cambridge Interchange. This project shall also be coordinated with the US 50 Eastbound Auxiliary Lane from Bass Lake Road Interchange to Cambridge Road Interchange (GP148/36104018), US 50 Eastbound Auxiliary Lane from Cambridge Road Interchange to Cameron Park Interchange (53126/36104019). (CIP 71332/36104006)	9,173,000	13,617,370	By 2044
ELD19177	ELD	Planned	El Dorado County	B- Road & Highway Capacity	US 50/Cameron Park Dr Interchange Improvements	Interchange Improvements: this project includes detailed study to identify capacity improvements alternatives and selection of preferred alternative; assumes reconstruction of existing US50 bridges to widen Cameron Park Dr to 8 lanes under the overcrossing; road and ramp widenings. (CIP 72361/36104007)	61,116,000	100,145,682	By 2044
ELD19178	ELD	Planned	El Dorado County	B- Road & Highway Capacity	US 50/El Dorado Rd Interchange - Phase 1	Phase 1 project includes sinalization and widening of existing ramps and minor widening/lane adjustments on El Dorado Road. See project 71376/36104012 for Phase 2 improvements. (CIP 71347/36104011)	5,488,000	8,146,967	By 2044
ELD19272	ELD	Project Development Only	El Dorado County	B- Road & Highway Capacity	US 50/El Dorado Rd Interchange - Phase 2	Project would involve construction of left and right turn lanes and additional through traffic lanes as follows: noth/southbound El Dorado Road, and east/westbound on-/off-ramps for US 50. Will require either widening of the existing El Dorado Road/US50 overcrossing structure and/or construction of a new adjacent structure. Refer to 2000 PSR. See project No. 71347/36104011 for Phase 1 improvements. (CIP 71376/36104012)	11,165,000	11,444,125	Post-2044
ELD19180	ELD	Programmed	El Dorado County	B- Road & Highway Capacity	US 50/Ponderosa Rd/So. Shingle Rd Interchange Improvements	Interchange Improvements: includes detailed study to identify alternatives and select preferred alternative; widening existing US 50 overcrossing to accommodate 5 lanes, and realignment of WB loop on-ramp, ramp widenings, and widening of Ponderosa Rd, Mother Lode Dr, and So. Shingle Rd, realignment of Durock Rd and North Shingle Rd.; includes PE for all phases; (See ELD19170/CIP71339 and ELD19244/CIP71333). Coordinates with ELD19289/CIP53116, ELD19219/CIP#GP150. Toll Credits for ENG. Toll Credits for ENG	47,731,400	-	By 2044
ELD19291	ELD	Planned	El Dorado County	B- Road & Highway Capacity	US 50/Silva Valley Pkwy Interchange - Phase 2	Final phase of US 50/Silva Valley Parkway Interchange. Due to future growth in the area this project will be necessary to accomodate traffic projected for 2030. Project includes eastbound diagonal and westbound loop on-ramps to US 50. Project is in the preliminary planning phase. (CIP 71345/36104004)	8,156,000	12,107,628	By 2044
ELD19525	ELD	Planned	El Dorado County	B- Road & Highway Capacity	White Rock Road Widening - Windfield Way to Sacramento County Line	Widen White Rock Road between the County line and Windfield Way from two to four-lane divided roadway with curb, gutter and Class I bike/pedestrian trail and/or an on-street Class II bike facility. This roadway is part of the Capital Southeast Connector.(CIP 72381/36105041)	4,404,000	5,365,846	By 2030
ELD19559	ELD	Programmed	El Dorado County	C- Maintenance & Rehabilitation	Bass Lake Road at Bridlewood Roundabout	In El Dorado Hills at the intersection of Bass Lake Road and Bridlewood Drive: Construct a single-lane roundabout.. Toll Credits for ROW	4,197,739	-	By 2030
ELD19562	ELD	Programmed	El Dorado County	C- Maintenance & Rehabilitation	Breedlove Road Bridge Replacement	North of Buckeye in El Dorado County, Breedlove Road Over Canyon Creek, 1 mi. North of Wentworth S. Rd.: Replace 1-lane timber bridge with 2-lane bridge. Not capacity increasing.	2,558,000	-	By 2030

Projects listed as "Project Development Only" are anticipated to begin early stages of development including project planning, design, preliminary engineering, environmental clearance, and ROW acquisition by 2044. Under the financial constraint requirements for forecasting revenues, the construction phase is not included in the Draft Plan. If/when additional revenues for these projects become available to cover full construction costs, these projects can be considered as part of an amendment to the MTP/SCS following a technical analysis and reviewing consistency with plan requirements.

ID	County	Status (Planned, Programmed or Project Development Only)	Lead Agency	Budget Category	Title	Description	Total Project Cost (2018 dollars)	Year of Expenditure Cost for planned projects	Completion Timing
ELD19345	ELD	Programmed	El Dorado County	G- System Management, Operations, and ITS	US 50/El Dorado Hills Blvd Interchange Phase 2B - Eastbound Ramps	Reconstruct eastbound diagonal on-ramp and eastbound loop off-ramp; add a lane to northbound El Dorado Hills Blvd under the overpass (eliminates merge lane and improves traffic flow from the eastbound loop off-ramp); eastbound diagonal on-ramp will be metered and have an HOV bypass. Project split from ELD15630(CIP71323).	11,731,054	-	By 2030
ELD19244	ELD	Planned	El Dorado County	G- System Management, Operations, and ITS	US 50/Ponderosa Rd Interchange - Durock Rd Realignment	Realign approx. 1/4 mile of Durock Rd toSouth Shingle Road/Sunset Ln and signalize new intersection. Durock Rd will be two through lanes with turn pockets at the intersection. this project is part of a larger project, US 50/Ponderoas Road/South Shingle Road Interchange (71333/36104010). Preliminary engineering shall be perfomed under the interchange project. Work needs to be coordinated with US 50 Ponderosa Road/South Shingle Road Ingerchange (7133/36104010), US 50/Ponderosa Road Interchnage - N. Shingle Road Realingment (project 71339/36104009) andUS 50 Eastbound Auxiliary Lane from Cameron Park Drive Interchange to Ponderosa Road Interchange (53127/36104020). (CIP 71338/36104008)	10,521,000	10,784,025	By 2044
ELD19170	ELD	Planned	El Dorado County	G- System Management, Operations, and ITS	US 50/Ponderosa Rd Interchange - N. Shingle Rd Realignment	Realign approx. 1/4 mile of N. Shingle Rd about 600 ft north at Ponderosa Rd; realign WB off-ramp to align with Wild Chaparral Dr; and signalize the new intersection. Realigned N. Shingle Rd will be two through lanes with turn pockets at the intersection. Part of a loarger Project for the reconstruction of the US50/Ponderosa Road/South Shingle Road interchange (7133/36104010). Preliminary Engineering for this phase shall be performed under the interchange project. Work needs to be coordinated with 7133/36104010, 71338/36104008, and 53128/36104024. (CIP 71339/36104009)	7,385,000	7,569,625	By 2044
ELD19461	ELD	Planned	El Dorado County Transit	E- Transit Capital (Major)	Regional Fueling Station	Develop a regional fueling station near the Sacramento/El Dorado County Line.	20,310,000	20,817,750	By 2030
ELD19549	ELD	Programmed	El Dorado County Transit	F - Transit Operations and Maintenance	Operating Assistance for Intercity service from Sacramento to South Lake Tahoe	Intercity bus service between Sacramento and South Lake Tahoe	2,900,000	-	By 2030
ELD19548	ELD	Programmed	El Dorado County Transit	F - Transit Operations and Maintenance	Operating Assistance for Rural Transit Services	Operating Assistance for rural transit services on the western slope of El Dorado County. Outside the Sacramento Urbanized area.	8,998,371	-	By 2030
ELD19547	ELD	Programmed	El Dorado County Transit	F - Transit Operations and Maintenance	Scheduling and Dispatching Software	Purchase new scheduling and dispatching software	120,000	-	By 2030
VAR56157	ELD	Planned	El Dorado County, Caltrans District 3	A- Bike & Ped	Install bicycle loop detection at all major intersections B	Install bicycle loop detection at all major intersections	6,000	6,150	By 2035
VAR56143	ELD	Planned	El Dorado County, Caltrans District 3	C- Maintenance & Rehabilitation	Communications Plan	Communications Plan	100,000	102,500	By 2030
VAR56146	ELD	Planned	El Dorado County, Caltrans District 3	C- Maintenance & Rehabilitation	Critical Intersection Improvements	Critical Intersection Improvements	5,000,000	5,125,000	By 2035
VAR56155	ELD	Planned	El Dorado County, Caltrans District 3	C- Maintenance & Rehabilitation	Highway Advisory Radio Deployment and Weather Stations Æ'?? integrate with Caltrans	Highway Advisory Radio Deployment and Weather Stations ? integrate with Caltrans	6,500,000	6,662,500	By 2035
VAR56156	ELD	Planned	El Dorado County, Caltrans District 3	C- Maintenance & Rehabilitation	Install Animal Vehicle Collision Avoidance Systems-Hwy 49 and US 50	Install Animal Vehicle Collision Avoidance Systems-Hwy 49 and US 50	150,000	153,750	By 2035
VAR56159	ELD	Planned	El Dorado County, Caltrans District 3	C- Maintenance & Rehabilitation	Install Downhill Speed Warning System on U.S. 50 Near Camino	Install Downhill Speed Warning System on U.S. 50 Near Camino	100,000	102,500	By 2035
VAR56160	ELD	Planned	El Dorado County, Caltrans District 3	C- Maintenance & Rehabilitation	Install Ice Detection and Warning Systems	Install Ice Detection and Warning Systems	200,000	205,000	By 2035
VAR56161	ELD	Planned	El Dorado County, Caltrans District 3	C- Maintenance & Rehabilitation	Install Rock/Mudslide and Avalanche Detection and Warning System	Install Rock/Mudslide and Avalanche Detection and Warning System	200,000	205,000	By 2035
VAR56181	ELD	Planned	El Dorado County, Caltrans District 3	C- Maintenance & Rehabilitation	US 50 Winter Traffic Management	US 50 Winter Traffic Management	250,000	256,250	By 2030
VAR56165	ELD	Planned	El Dorado County, Caltrans District 3	D- Programs & Planning	Long-Term Regional ITS Plan Update	Long-Term Regional ITS Plan Update	200,000	205,000	By 2030

Section 2 Individually Listed Projects and Grouped Project Listings (with Detailed Back-up)

ELD19180 | **ELD** | Lead Agency **El Dorado County** | **Project 1 of 48**

Project Title

US 50/Ponderosa Rd/Durock Rd./So. Shingle Rd Interchange Improvements

EA Number: n/a	Last Revised	Completion Year
FED ID: 5925-180	25-15	**2040**

Project Description

In El Dorado County; Comprehensive interchange improvements will ultimately include: Widening U.S 50/Ponderosa Road Overcrossing from three to five lanes including shoulder widening and realignments of North Shingle and Durock Roads, adding turn pockets, acceleration/deceleration lanes, high-occupancy vehicle (HOV) bypass lanes and ramp metering, and modifications to the loop on- and off-ramps in both east and west directions. Construction of the first phase will realign approximately a quarter mile of Durock Road south to the South Shingle Road/Sunset Lane intersection with a new roundabout, the existing Durock Road Park and Ride lot will be reconstructed. The first phase will also realign approximately a quarter mile of North Shingle Road to a new Ponderosa Road roundabout approximately 600 feet north of the existing intersection. Durock Road and North Shingle Road will be two through lanes with turn pockets where applicable. The US50 westbound diagonal off-ramp and westbound loop on-ramp will be realigned to the Wild Chaparral Drive signalized intersection. The US50 eastbound off-ramp is also being reconstructed as part of the first phase. Construction of the ultimate phase will widen the U.S. 50/Ponderosa Road Overcrossing from three to five lanes and potential ramp improvements. This includes environmental clearance for both the first phase and the ultimate phase of the project. Includes PE for all phases; (CIP 36104008, CIP 36104009, and CIP 36104010). Toll Credits for ENG.. Toll Credits for ROW.. Toll Credits for ENG

Fed FY	Revenue Source	Engineering	Right of Way	Construction	Total Revenue
<25		$4,835,400	$23,000	$0	$4,858,400
2026	Local - Developer - Transportation Improvement Fee	$59,000	$4,135,500	$0	$4,194,500
2026	Regional Surface Transportation Program	$500,000	$0	$0	$500,000
2027	Local - Developer - Transportation Improvement Fee	$0	$0	$24,302,500	$24,302,500
2027	RIP - STIP AC	$0	$0	$12,497,500	$12,497,500
		$5,394,400	**$4,158,500**	**$36,800,000**	**$46,352,900**

Federal Project Total Cost **$46,352,900**

Previously Approved MTIP

ELD19180 **ELD** Lead Agency **El Dorado County**

Project Title

US 50/Ponderosa Rd/Durock Rd./So. Shingle Rd Interchange Improvements

EA Number: n/a | Last Revised 25-14 | Completion Year **2040**

FED ID: 5925-180

Project Description

Interchange Improvements: Includes detailed study to identify alternatives and select preferred alternative; as well as construction of the first phase to realign approximately 1/4 mile of Durock Rd to South Shingle Rd/Sunset Ln and signalize the new intersection. Durock Rd will be two through lanes with turn pockets at the intersection. The first phase will also realign approx. 1/4 mile of N. Shingle Rd about 600 ft. north at Ponderosa Rd; realign the WB off-ramp to align with Wild Chaparral Dr. and signalize the new intersection. Realigned N. Shingle Rd will be two through lanes with turn pockets at the intersection. Includes PE for all phases; (CIP71339 and CIP71333). Will coordinate with future project to widen the US 50 overcrossing to 5 lanes. Toll Credits for ENG.. Toll Credits for ENG

Fed FY	Revenue Source	Engineering	Right of Way	Construction	Total Revenue
<25		$4,835,400	$23,000	$0	$4,858,400
2026	Local - Developer - Transportation Improvement Fee	$59,000	$4,135,500	$0	$4,194,500
2026	Regional Surface Transportation Program	$500,000	$0	$0	$500,000
2027	Local - Developer - Transportation Improvement Fee	$0	$0	$24,302,500	$24,302,500
2027	RIP - STIP AC	$0	$0	$12,497,500	$12,497,500
		$5,394,400	**$4,158,500**	**$36,800,000**	**$46,352,900**

Federal Project Total Cost **$46,352,900**

Sacramento Area Council of Governments - Federal Transportation Improvement Program
(Dollars in Whole)
State Highway System

DIST:	PPNO:	EA:	CTIPS ID:
03			207-0000-1265
CT PROJECT ID:			MPO ID.: ELD19180
COUNTY:	ROUTE:		PM:
El Dorado County	50		0.000 / 0.000

TITLE (DESCRIPTION):
US 50/Ponderosa Rd/Durock Rd./So. Shingle Rd Interchange Improvements (Interchange Improvements: Includes detailed study to identify alternatives and select preferred alternative; as well as construction of the first phase to realign approximately 1/4 mile of Durock Rd to South Shingle Rd/Sunset Ln and signalize the new intersection. Durock Rd will be two through lanes with turn pockets at the intersection. The first phase will also realign approx. 1/4 mile of N. Shingle Rd about 600 ft. north at Ponderosa Rd; realign the WB off-ramp to align with Wild Chaparral Dr. and signalize the new intersection. Realigned N. Shingle Rd will be two through lanes with turn pockets at the intersection. Includes PE for all phases; (CIP71339 and CIP71333). Will coordinate with future project to widen the US 50 overcrossing to 5 lanes. Toll Credits for ENG.. Toll Credits for ENG)

MPO Aprv: 04/30/2025
State Aprv: 05/08/2025
Federal Aprv: 05/23/2025

EPA TABLE II or III EXEMPT CATEGORY
Null

IMPLEMENTING AGENCY: El Dorado County
PROJECT MANAGER: Jon Balzer PHONE: (530) 621-5920 EMAIL:

PROJECT VERSION HISTORY (Printed Version is Shaded) *(Dollars in whole)*

Version	Status	Date	Updated By	Change Reason	Amend No.	Prog Con	Prog RW	PE
21	Official	04/30/2025	AHSACOG	Amendment - Cost/Scope/Sch. Change	5	31,497,500	6,680,000	8,388,400
20	Official	09/19/2024	AHSACOG	Adoption - Carry Over	0	31,497,500	6,680,000	8,388,400
19	Official	11/09/2023	AHSACOG	Amendment - Cost/Scope/Sch. Change	11	33,940,000	5,905,000	7,886,400
18	Official	12/19/2022	AHSACOG	Amendment - Cost/Scope/Sch. Change	1	19,561,000	1,243,000	5,487,400
17	Official	09/15/2022	AHSACOG	Adoption - Carry Over	0	19,561,000	1,243,000	4,587,400
16	Official	06/08/2021	AHSACOG	Amendment - Cost/Scope/Sch. Change	2	19,561,000	882,000	4,125,000
15	Official	02/24/2021	AHSACOG	Adoption - Carry Over	0	19,561,000	882,000	4,125,000
14	Official	03/09/2020	AHSACOG	Amendment - Cost/Scope/Sch. Change	21	11,400,000	882,000	4,125,000
13	Official	08/23/2019	AHSACOG	Amendment - Cost/Scope/Sch. Change	11	11,400,000	882,000	4,125,000

* Local Funds -		PRIOR	24-25	25-26	26-27	27-28	28-29	29-30	BEYOND	TOTAL
* Fund Source 1 of 7	PE	348,000								348,000
	RW	23,000								23,000
* Fund Type: Traffic Impact Fees	CON									
* Funding Agency:	Total:	371,000								371,000

* RIP -		PRIOR	24-25	25-26	26-27	27-28	28-29	29-30	BEYOND	TOTAL
* Fund Source 2 of 7	PE									
	RW									
* Fund Type: STIP Advance Construction	CON				12,497,500					12,497,500
* Funding Agency:	Total:				12,497,500					12,497,500

* Local Funds -		PRIOR	24-25	25-26	26-27	27-28	28-29	29-30	BEYOND	TOTAL
* Fund Source 3 of 7	PE	59,000								59,000
	RW	5,440,000								5,440,000
* Fund Type: Traffic Impact Fees	CON									
* Funding Agency:	Total:	5,499,000								5,499,000

* Future Need -		PRIOR	24-25	25-26	26-27	27-28	28-29	29-30	BEYOND	TOTAL
* Fund Source 4 of 7	PE						2,994,000			2,994,000
	RW						1,217,000			1,217,000
* Fund Type: Future Funds	CON						19,000,000			19,000,000
* Funding Agency:	Total:						23,211,000			23,211,000

* Local Funds -		PRIOR	24-25	25-26	26-27	27-28	28-29	29-30	BEYOND	TOTAL
* Fund Source 5 of 7	PE	3,567,400								3,567,400
	RW									
* Fund Type: Traffic Impact Fees	CON									
* Funding Agency:	Total:	3,567,400								3,567,400

* RSTP -		PRIOR	24-25	25-26	26-27	27-28	28-29	29-30	BEYOND	TOTAL
* Fund Source 6 of 7	PE	500,000								500,000

* Fund Type: STP Local	RW		
	CON		
* Funding Agency:	Total:	500,000	500,000

Sacramento Area Council of Governments - Federal Transportation Improvement Program
(Dollars in Whole)
State Highway System

* Local Funds -		PRIOR	24-25	25-26	26-27	27-28	28-29	29-30	BEYOND	TOTAL
* Fund Source 7 of 7	PE	920,000								920,000
	RW									
* Fund Type: Traffic Impact Fees	CON									
* Funding Agency:	Total:	920,000								920,000

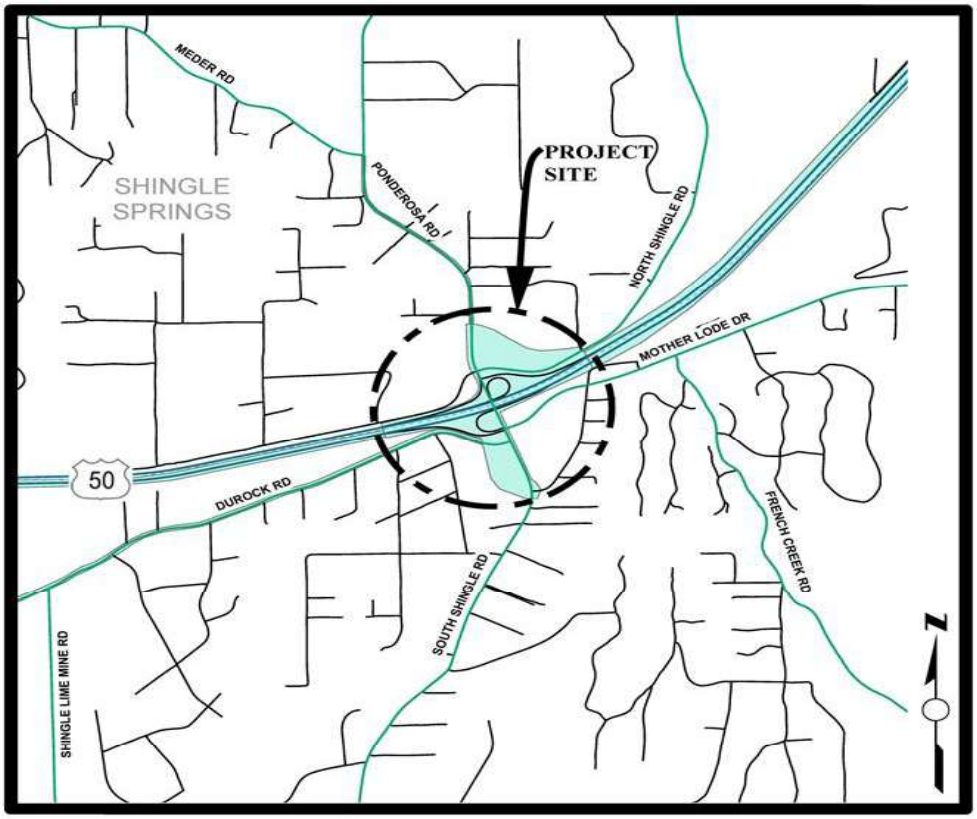
Project Total:		PRIOR	24-25	25-26	26-27	27-28	28-29	29-30	BEYOND	TOTAL
	PE	5,394,400					2,994,000			8,388,400
	RW	5,463,000					1,217,000			6,680,000
	CON				12,497,500		19,000,000			31,497,500
	Total:	10,857,400			12,497,500		23,211,000			46,565,900

Comments:
Other ** Updated description - JB 1/24/25.

US 50 / Ponderosa Road / South Shingle Road Interchange Improvements

CIP Project Summary

Project No: 36104010 **Type: Interchange** **Supervisor District(s) 4**



LOCATION MAP

NOT TO SCALE

Project Description:

Project provides capacity improvements to the interchange, includes a detailed study to identify a preferred alternative. This phase of the project includes the widening of the existing US 50 overcrossing to accommodate five lanes and the realignment of the westbound on-ramp and eastbound loop on-ramp, and widenings along Mother Lode Drive and South Shingle Road. Preliminary engineering for all phases (projects 71333/36104010, 71338/36104008 and 71339/36104009) shall be performed under the interchange project. This project requires the construction of US 50 /Ponderosa Road - North Shingle Road Realignment (project 71338/36104008) and US 50 / Ponderosa Road Interchange - Durock Road Realignment (project 71339/36104009). This project shall also be coordinated with US 50 Eastbound Auxiliary Lanes - Cameron Park Interchange to Ponderosa Road Interchange (53127/36104020), and US 50 Westbound Auxiliary Lanes - Ponderosa Road Interchange to Cameron Park Drive Interchange (53128/36104024).

Project Initiation Date: 2/13/2007

US 50 / Ponderosa Road / South Shingle Road Interchange Improvements

Financing Plan & Tentative Schedule

Project No: 36104010 | **Type: Interchange** | **Supervisor District(s) 4**

All Figures in Thousands

Revenue Source	Prior FY*	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30-33/34	FY 34/35-43/44	Total
Road Fund									34
TIM - Zn 1-7									558
TIF - Hwy 50									905
RSTP Fed Funds – Caltrans LA									
To Be Determined									23,277
Road Fund - Pending Reimbursement									
Totals	1,497							23,277	24,774

All Figures in Thousands

Expenditures	Prior FY*	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30-33/34	FY 34/35-43/44	Total
Plng/Env Consultant									882
Plng/Env DOT Staff									488
Design Consultant									318
Developer Advanced Design									
Design DOT Staff									2,779
ROW Acquisition									982
ROW Utility Relocation									
ROW Consultant									111
ROW DOT Staff									147
Constr Eng Consultant									500
Const Eng Staff									2,001
Construction									16,566
Developer Built									
Environmental Mitig. Monitor Consult.									
Environmental Mitig. Monitor Staff									1
Totals	1,497							23,277	24,774

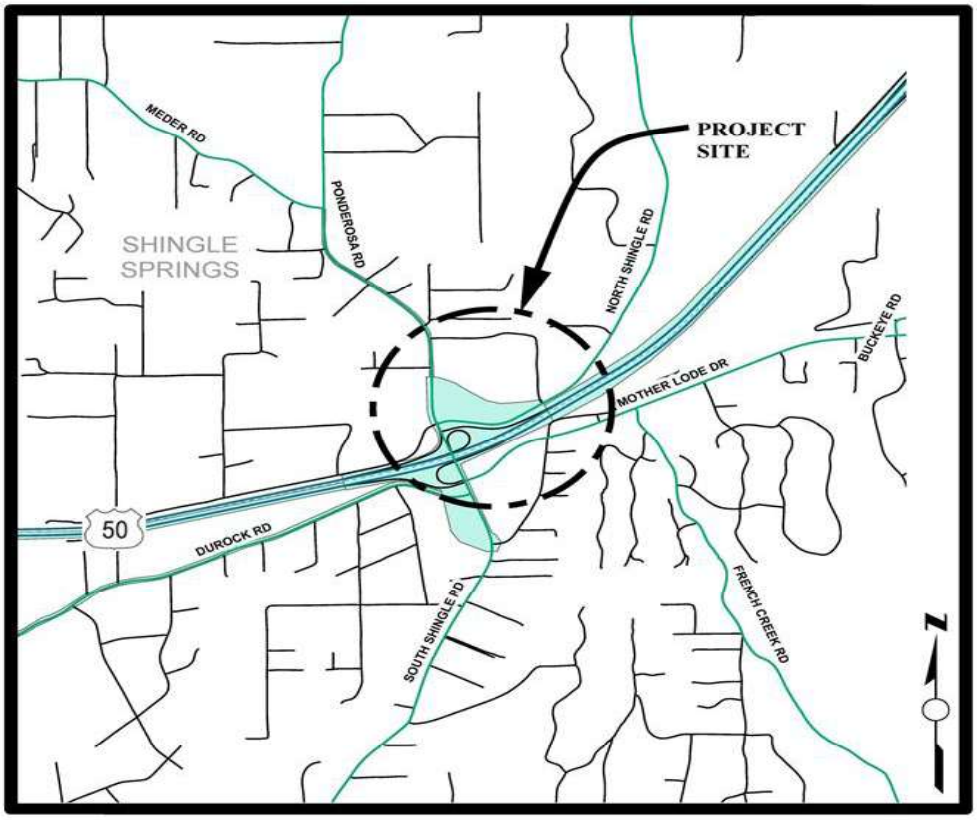
Schedule	Prior FY*	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30-33/34	FY 34/35-43/44
Planning/Environmental								
Design								
Right Of Way								
Construction								
Environmental Monitoring								

*Prior FY includes actual revenue and expenditures through 6/30/2023, plus amounts estimated through 6/30/2024.

US 50 / Ponderosa Road Interchange Phase 1A - North Shingle Road Realignment

CIP Project Summary

Project No: 36104009 **Type: Interchange** **Supervisor District(s) 4**



LOCATION MAP

NOT TO SCALE

Project Description:

This project includes: realignment of about 1/4 mile of North Shingle Road to about 600 feet north on Ponderosa Road; realignment of the westbound off-ramp to align with Wild Chaparral Drive; and potential realignment of the westbound on-ramp loop. Part of a larger project for the reconstruction of the US 50/Ponderosa Road/South Shingle Road interchange (project 71333/36104010). Preliminary engineering for this phase shall be performed under the interchange project. Work needs to be coordinated with 71333/36104010, 71338/36104008, and 53128/36104024.

Project Initiation Date: 2/11/2008

US 50 / Ponderosa Road Interchange Phase 1A - North Shingle Road Realignment

Financing Plan & Tentative Schedule

Project No: 36104009 | **Type: Interchange** | **Supervisor District(s) 4**

All Figures in Thousands

Revenue Source	Prior FY*	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30-33/34	FY 34/35-43/44	Total
TIM - Zn 1-7									5
TIF - Hwy 50									7,779
Road Fund									1
State Transportation Improvement Program (STIP)									12,498
Totals	687	620	1,975	1,325	9,350	6,325			20,282

All Figures in Thousands

Expenditures	Prior FY*	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30-33/34	FY 34/35-43/44	Total
Plng/Env Consultant									100
Plng/Env DOT Staff									51
Design Consultant									1,750
Developer Advanced Design									
Design DOT Staff									611
ROW Acquisition									1,600
ROW Utility Relocation									400
ROW Consultant									125
ROW DOT Staff									120
Constr Eng Consultant									350
Const Eng Staff									1,675
Construction									13,500
Developer Built									
Environmental Mitig. Monitor Consult.									
Environmental Mitig. Monitor Staff									
Totals	687	620	1,975	1,325	9,350	6,325			20,282

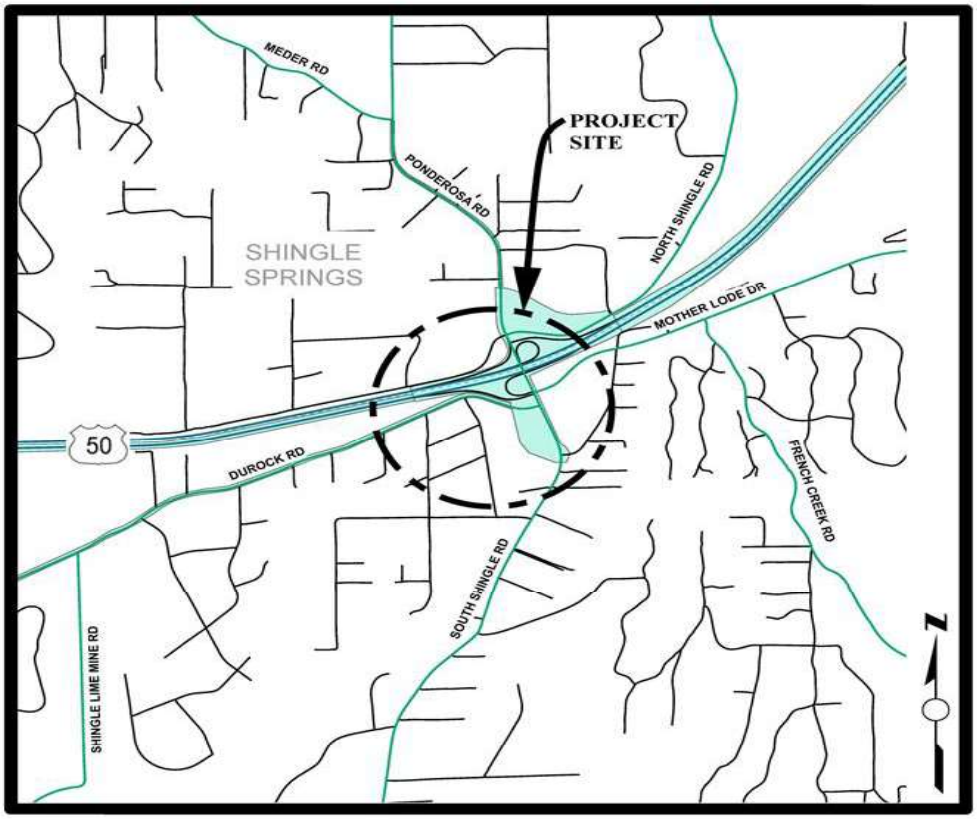
Schedule	Prior FY*	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30-33/34	FY 34/35-43/44
Planning/Environmental								
Design								
Right Of Way								
Construction								
Environmental Monitoring								

*Prior FY includes actual revenue and expenditures through 6/30/2023, plus amounts estimated through 6/30/2024.

US 50 / Ponderosa Road Interchange Phase 1B - Durock Road Realignment

CIP Project Summary

Project No: 36104008 | **Type: Interchange** | **Supervisor District(s) 4**



LOCATION MAP

NOT TO SCALE

Project Description:

This project includes realignment of approximately 1/4 mile of Durock Road to South Shingle Road/Sunset Lane and potential widening of the eastbound off ramp. This project is part of a larger project, US 50/Ponderosa Road/South Shingle Road interchange (project 71333/36104010). Preliminary engineering shall be performed under the interchange project. Work needs to be coordinated with US 50/Ponderosa Road/South Shingle Road Interchange (project 71333/36104010), US 50/Ponderosa Road Interchange - N. Shingle Road Realignment (project 71339/36104009) and US 50 Eastbound Auxiliary Lane from Cameron Park Drive Interchange to Ponderosa Road Interchange (53127/36104020).

Project Initiation Date: 2/11/2008

US 50 / Ponderosa Road Interchange Phase 1B - Durock Road Realignment

Financing Plan & Tentative Schedule

Project No: 36104008 | **Type: Interchange** | **Supervisor District(s) 4**

All Figures in Thousands

Revenue Source	Prior FY*	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30-33/34	FY 34/35-43/44	Total
TIM - Zn 1-7									7
TIF - Hwy 50									22,501
Road Fund									1
RSTP Fed Funds – Caltrans LA									500
TIF - Silva Valley Interchange Zn C									
Totals	740	620	2,150	2,100	10,500	6,900			23,010

All Figures in Thousands

Expenditures	Prior FY*	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30-33/34	FY 34/35-43/44	Total
Plng/Env Consultant									103
Plng/Env DOT Staff									56
Design Consultant									1,750
Developer Advanced Design									
Design DOT Staff									655
ROW Acquisition									2,550
ROW Utility Relocation									400
ROW Consultant									125
ROW DOT Staff									120
Constr Eng Consultant									350
Const Eng Staff									1,900
Construction									15,000
Developer Built									
Environmental Mitig. Monitor Consult.									
Environmental Mitig. Monitor Staff									1
Totals	740	620	2,150	2,100	10,500	6,900			23,010

Schedule	Prior FY*	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30-33/34	FY 34/35-43/44
Planning/Environmental								
Design								
Right Of Way								
Construction								
Environmental Monitoring								

*Prior FY includes actual revenue and expenditures through 6/30/2023, plus amounts estimated through 6/30/2024.

Tim Chamberlain

From: Lacey Symons <lsymons-holtzen@sacog.org>
Sent: Tuesday, August 30, 2011 1:49 PM
To: Tim Chamberlain
Cc: Victoria Cacciatore
Subject: Fwd: RE: Ponderosa Road Interchange Project

Hi Tim--Below is what will be included in the meeting summary. You're welcome to use this email as confirmation that the RPP concluded this is not a POAQC requiring a hot spot analysis.

Mr. Chamberlain and Mr. Roccanova introduced the project, to modify the existing U.S. 50/Ponderosa/South Shingle Road Interchange and adjacent frontage roads. Ms. Symons-Holtzen asked if the RPP subcommittee for reviewing Projects of Air Quality Concern (POAQC) had any questions about the project; members of the RPP subcommittee said they were satisfied with their review of the project. Mr. Robinson moved to find that the U.S. 50/Ponderosa Road Interchange Project does not require a $PM_{2.5}$ hot spot analysis. Mr. Thomas seconded the motion. The Partnership voted that the U.S. 50/Ponderosa Interchange Project is not a project of air quality concern and thus does not require a detailed PM2.5 hot spot analysis.

Tim-please let Jennifer know I need the POAQC information no later than 9/7.

Thanks,
Lacey

Lacey Symons-Holtzen
Transportation Planner
Sacramento Area Council of Governments
1415 L Street STE 300
Sacramento, CA 95814
916.340.6212
916.321.9551 (fax)
lsymons-holtzen@sacog.org
www.sacog.org
>>> "Tim Chamberlain" <tchamberlain@dokkenengineering.com> 8/29/2011 12:48 PM >>>

Hi Lacey,

Thanks again for your help getting our project through the POAQC process last week. It was a smooth and easy process and the County was glad to be able to call in and find a little more about it. I'm currently updating our environmental documentation and will need to include something showing the concurrence/determination made by the RPP that our project is not a POAQC. Do you know what that is likely to be and can you tell me when it would likely be available to me?

From:	Jackie Kahrs
To:	Magana, Junior@DOT; antonio.johnson@dot.gov; jasmine.amanin@dot.gov; michelle.ruan@dot.gov; mervin.acebo@dot.gov; John Kelly; oconnor.karina@epa.gov; rodney.tavitas@dot.ca.gov; alexander.fong@dot.ca.gov; Youngil.Cho@dot.ca.gov; nesamani.kalandiyur@arb.ca.gov; David Yang; JANICE LAM; mwright@airquality.org; pphilley@airquality.org; mloutzenhiser@airquality.org; sspaethe@fraqmd.org; YChang@placer.ca.gov; Rick Carter; jbarton; rania.serieh@edcgov.us; Miguel Mendoza; Karishma.Becha@dot.ca.gov; Erika.Vaca@dot.ca.gov; Dennis, Christopher@DOT; Walter, Hannah@DOT; brenda.h.caruso@dot.ca.gov; Shengyi Gao; Lally, Randeep@DOT; Mtg Rm - Placer Room; BBeattie@ysaqmd.org; EWinniford@ysaqmd.org; Bali, Aaron@DOT
Cc:	ryan.pommerenck@dot.ca.gov; Rios, Kevin H@DOT; Zach Liptak; jon.balzer@edcgov.us; Amy Bakker
Subject:	SACOG Project Level Conformity Group Meeting
Date:	Wednesday, May 14, 2025 4:38:31 PM
Attachments:	SACOG PLCG Meeting Minutes_05142025.pdf

Good Afternoon,

Thank you for your participation in SACOG's Project Level Conformity Group meeting. During today's meeting, EPA and FHWA determined that the following projects are not projects of air quality concern:

1. US 50/Ponderosa Rd/So. Shingle Rd Interchange Improvements (ELD19180)
2. SR 70 Roadway Rehab & Operational Improvements (CAL20715)

Please see the attached meeting minutes and reach out if you have any questions or concerns.

Thank you,

Jackie Kahrs | Transportation Programs & Funding Analyst
Sacramento Area Council of Governments
1415 L Street, Suite 300 | Sacramento, CA | 95814
(916) 340-6248
jkahrs@sacog.org

PROJECT: U.S. 50/Ponderosa Road/South Shingle Springs Road Interchange Project **DATE:** 03/05/25

Summary of Project Emissions and Consumption															
	TOG	ROG	CO	NOx	PM10	PM2.5	CO2	CH4	N2O	BC	HFC	CO_2e	Diesel Fuel	Gasoline Fuel	Electricity
Daily Average (lbs/day; metric tons CO_2e/day; gal fuel/day; kWh electricity/day)	3.062	2.882	15.161	18.660	1.956	1.431	3988	0.111	0.149	0.189	0.071	1.92	146	35	13.359
Maximum Daily Average (lbs/day; metric tons CO_2e/day; gal fuel/day; kWh electricity/day)	6.388	5.993	44.053	40.430	4.887	3.270	8503	0.262	0.272	0.345	0.120	4.02	331	73	26.539
Annual Average (tons/year; metric tons CO_2e/year; gal fuel/year; kWh electricity/year)	0.214	0.202	1.061	1.306	0.137	0.100	279	0.008	0.010	0.013	0.005	268	20,379	4,844	1,870,214

Summary by Source	Project Total Emissions and Consumption (tons; metric tons CO_2e; gal fuel; kWh electricity)														
Source	TOG	ROG	CO	NOx	PM10	PM2.5	CO2	CH4	N2O	BC	HFC	CO_2e	Diesel Fuel	Gasoline Fuel	Electricity
On-Road	0.014	0.012	0.215	0.181	0.002	0.002	200	0.001	0.018	0.000	0.010	199	9,344	9,888	3,740,429
Off-Road	0.414	0.392	1.908	2.432	0.194	0.190	359	0.014	0.003	0.026	-	337	31,415	-	-
Area-Wide Fugitive Dust	-	-	-	-	0.078	0.008	-	-	-	-	-	-	-	-	-
Painting and Asphalt Application	0.000	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-
Project Total	**0.429**	**0.403**	**2.123**	**2.612**	**0.274**	**0.200**	**558**	**0.016**	**0.021**	**0.026**	**0.010**	**536**	**40,759**	**9,888**	**3,740,429**

	Project Average Daily Emissions and Consumption (lbs/day; m							
	TOG	ROG	CO	NOx	PM10	PM2.5	CO2	CH4
Project Maximum*	6.388	5.993	44.053	40.430	4.887	3.270	8503	0.262

* The overall project maximum average daily value is the largest of either a single operation's average daily value or, when operations ov
detail). Contributions to the project maximum average daily value by operation are indicated by red font.

Summary by Operation	Total Emissions and Consumption by Operation (tons; metric tons CO_2e; gal fuel; kWh electricity)														
Project Phases	TOG	ROG	CO	NOx	PM10	PM2.5	CO2	CH4	N2O	BC	HFC	CO_2e	Diesel Fuel	Gasoline Fuel	Electricity
Land Clearing/Grubbing	0.015	0.014	0.080	0.082	0.026	0.008	19	0.001	0.001	0.001	0.000	18	1,501	215	106.049
Roadway Excavation & Removal	0.114	0.107	0.712	0.711	0.075	0.056	163	0.005	0.005	0.008	0.002	146	11,977	1,712	797.241
Structural Excavation & Removal	0.008	0.007	0.022	0.038	0.022	0.004	10	0.000	0.001	0.000	0.000	10	731	217	94.847
Base/Subbase/Imported Borrow	0.105	0.099	0.727	0.667	0.072	0.054	140	0.004	0.004	0.004	0.002	133	10,928	1,641	653.293
Structure Concrete	0.046	0.044	0.136	0.209	0.013	0.013	42	0.001	0.001	0.003	0.001	41	3,008	877	220.306
Paving	0.057	0.054	0.163	0.392	0.029	0.028	66	0.002	0.003	0.004	0.001	64	4,733	1,228	407.321
Drainage/Environment/Landscaping	0.048	0.045	0.131	0.281	0.022	0.022	48	0.001	0.002	0.004	0.001	47	3,498	866	320.199
Traffic Signalization/Signage/Striping/Painting	0.036	0.033	0.153	0.232	0.015	0.015	80	0.001	0.004	0.002	0.003	78	4,383	3,132	1,141.174
Other Operation	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
Total	**0.429**	**0.403**	**2.123**	**2.612**	**0.274**	**0.200**	**558**	**0.016**	**0.021**	**0.026**	**0.010**	**536**	**40,759**	**9,888**	**3,740,429**

	Average Daily Emissions and Consumption by Operation (lbs/day							
	TOG	ROG	CO	NOx	PM10	PM2.5	CO2	CH4
	1.830	1.730	9.963	10.234	3.195	0.991	2391	0.070
	4.065	3.822	25.424	25.395	2.668	2.011	5456	0.164
	1.735	1.646	4.901	8.465	4.887	0.979	2290	0.052
	6.388	5.993	44.053	40.430	4.385	3.270	8503	0.262
	2.018	1.913	5.893	9.099	0.576	0.564	1845	0.053
	4.537	4.287	13.024	31.360	2.291	2.254	5252	0.142
	1.856	1.747	5.019	10.824	0.848	0.830	1849	0.053
	1.657	1.548	7.127	10.770	0.709	0.698	3706	0.068
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
Highest across Operations	6.388	5.993	44.053	40.430	4.887	3.270	8503	0.262

Summary by Year	Total Emissions and Consumption by Year (tons; metric tons CO_2e; gal fuel; kWh electricity)														
Year	TOG	ROG	CO	NOx	PM10	PM2.5	CO2	CH4	N2O	BC	HFC	CO_2e	Diesel Fuel	Gasoline Fuel	Electricity
2015	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2016	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2017	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2018	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2019	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2020	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2021	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2022	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2023	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2024	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2025	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2026	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2027	0.368	0.347	1.902	2.235	0.247	0.174	454	0.013	0.016	0.022	0.007	435	34,563	6,312	2,402.649
2028	0.061	0.057	0.221	0.377	0.027	0.026	105	0.002	0.005	0.004	0.003	102	6,196	3,576	1,337.780
2029	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2030	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2031	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2032	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2033	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2034	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2035	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2036	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2037	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2038	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2039	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2040	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2041	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2042	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2043	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2044	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2045	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2046	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2047	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2048	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2049	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2050	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
Total	0.429	0.403	2.123	2.612	0.274	0.200	558	0.016	0.021	0.026	0.010	536	40,759	9,888	3,740.429
	Average Emissions and Consumption per Year (tons/year; metric tons CO_2e/year; gal fuel/year; kWh electricity/year)														
Summary	0.214	0.202	1.061	1.306	0.137	0.100	279	0.008	0.010	0.013	0.005	268	20,379	4,944	1,870.214

Average Daily Emissions and Consumption by Year (lbs/day; m							
TOG	ROG	CO	NOx	PM10	PM2.5	CO2	CH4
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
3.505	3.301	18.113	21.285	2.353	1.658	4322	0.127
1.733	1.624	6.306	10.783	0.762	0.749	2987	0.062
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
Average Emissions and Consumption per Day (lbs/day; metr							
3.062	2.882	15.161	18.660	1.956	1.431	3988	0.111

PROJECT: U.S. 50/Ponderosa Road/South Shingle Springs Road Interchange Project **DATE:** 03/05/25

Summary of Project Emissions and Consumption

	TOG	ROG	CO	NOx	PM10	PM2.5	CO2	CH4	N2O	BC	HFC	CO_2e	Diesel Fuel	Gasoline Fuel	Electricity
Daily Average (lbs/day; metric tons CO_2e/day; gal fuel/day; kWh electricity/day)	1.285	1.232	5.105	6.584	0.883	0.488	1510	0.039	0.063	0.040	0.005	0.71	56	12	104.978
Maximum Daily Average (lbs/day; metric tons CO_2e/day; gal fuel/day; kWh electricity/day)	2.150	2.052	15.993	14.214	9.464	1.272	3150	0.095	0.118	0.094	0.010	1.47	126	31	207.579
Annual Average (tons/year; metric tons CO_2e/year; gal fuel/year; kWh electricity/year)	0.116	0.111	0.459	0.593	0.079	0.044	136	0.004	0.006	0.004	0.000	127	10,093	2,217	18,895.972

Summary by Source	Project Total Emissions and Consumption (tons; metric tons CO_2e; gal fuel; kWh electricity)														
Source	TOG	ROG	CO	NOx	PM10	PM2.5	CO2	CH4	N2O	BC	HFC	CO_2e	Diesel Fuel	Gasoline Fuel	Electricity
On-Road	0.003	0.003	0.079	0.061	0.001	0.001	103	0.000	0.010	0.000	0.001	97	5,363	4,435	37,791.944
Off-Road	0.228	0.219	0.840	1.124	0.080	0.078	169	0.007	0.001	0.007	-	157	14,823	-	-
Area-Wide Fugitive Dust	-	-	-	-	0.078	0.008	-	-	-	-	-	-	-	-	-
Painting and Asphalt Application	0.000	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-
Project Total	**0.231**	**0.222**	**0.919**	**1.185**	**0.159**	**0.088**	**272**	**0.007**	**0.011**	**0.007**	**0.001**	**254**	**20,186**	**4,435**	**37,791.944**

	Project Average Daily Emissions and Consumption (lbs/day; m							
	TOG	ROG	CO	NOx	PM10	PM2.5	CO2	CH4
Project Maximum*	2.150	2.052	15.993	14.214	9.464	1.272	3150	0.095

* The overall project maximum average daily value is the largest of either a single operation's average daily value or, when operations ov
detail). Contributions to the project maximum average daily value by operation are indicated by red font.

Summary by Operation	Total Emissions and Consumption by Operation (tons; metric tons CO_2e; gal fuel; kWh electricity)														
Project Phases	TOG	ROG	CO	NOx	PM10	PM2.5	CO2	CH4	N2O	BC	HFC	CO_2e	Diesel Fuel	Gasoline Fuel	Electricity
Land Clearing/Grubbing	0.003	0.003	0.015	0.015	0.021	0.003	4	0.000	0.000	0.000	0.000	3	292	31	490.923
Roadway Excavation & Removal	0.017	0.016	0.110	0.106	0.028	0.010	24	0.001	0.001	0.000	0.000	22	1,911	201	2,885.758
Structural Excavation & Removal	0.024	0.023	0.067	0.108	0.027	0.009	28	0.001	0.001	0.000	0.000	27	2,130	449	5,762.683
Base/Subbase/Imported Borrow	0.039	0.037	0.288	0.256	0.039	0.022	57	0.002	0.002	0.002	0.000	53	4,531	521	6,049.386
Structure Concrete	0.119	0.114	0.339	0.502	0.031	0.030	106	0.003	0.004	0.004	0.000	99	7,824	1,834	12,260.411
Paving	0.007	0.006	0.019	0.047	0.003	0.003	8	0.000	0.000	0.000	0.000	8	604	125	1,303.861
Drainage/Environment/Landscaping	0.010	0.009	0.027	0.060	0.004	0.004	11	0.000	0.000	0.000	0.000	10	823	170	1,566.258
Traffic Signalization/Signage/Striping/Painting	0.014	0.013	0.054	0.092	0.006	0.006	34	0.001	0.002	0.000	0.000	32	2,071	1,104	7,472.664
Other Operation	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
Total	**0.231**	**0.222**	**0.919**	**1.185**	**0.159**	**0.088**	**272**	**0.007**	**0.011**	**0.007**	**0.001**	**254**	**20,186**	**4,435**	**37,791.944**

	Average Daily Emissions and Consumption by Operation (lbs/day							
	TOG	ROG	CO	NOx	PM10	PM2.5	CO2	CH4
	0.888	0.852	4.995	4.874	6.864	1.012	1210	0.034
	1.439	1.376	9.585	9.200	2.406	0.875	2062	0.061
	0.738	0.711	2.045	3.281	0.817	0.283	861	0.020
	2.150	2.052	15.992	14.214	2.190	1.208	3150	0.095
	1.776	1.704	5.063	7.497	0.459	0.452	1584	0.043
	0.933	0.899	2.670	6.662	0.472	0.469	1154	0.028
	0.433	0.414	1.184	2.650	0.187	0.185	489	0.013
	0.771	0.738	2.998	5.113	0.330	0.328	1894	0.029
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
Highest across Operations	2.150	2.052	15.992	14.214	6.864	1.208	3150	0.095

Summary by Year	Total Emissions and Consumption by Year (tons; metric tons CO_2e; gal fuel; kWh electricity)														
Year	TOG	ROG	CO	NOx	PM10	PM2.5	CO2	CH4	N2O	BC	HFC	CO_2e	Diesel Fuel	Gasoline Fuel	Electricity
2015	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2016	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2017	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2018	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2019	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2020	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2021	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2022	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2023	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2024	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2025	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2026	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2027	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2028	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2029	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2030	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2031	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2032	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2033	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2034	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2035	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2036	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2037	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2038	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2039	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2040	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2041	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2042	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2043	0.152	0.146	0.680	0.781	0.133	0.062	175	0.005	0.007	0.005	0.001	164	13,481	2,291	22,311.075
2044	0.079	0.076	0.238	0.404	0.026	0.026	97	0.002	0.005	0.002	0.000	90	6,705	2,144	15,480.868
2045	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2046	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2047	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2048	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2049	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2050	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
Total	0.231	0.222	0.919	1.185	0.159	0.088	272	0.007	0.011	0.007	0.001	254	20,186	4,435	37,791.944
	Average Emissions and Consumption per Year (tons/year; metric tons CO_2e/year; gal fuel/year; kWh electricity/year)														
Summary	0.116	0.111	0.459	0.593	0.079	0.044	136	0.004	0.006	0.004	0.000	127	10,093	2,217	18,895.972

Average Daily Emissions and Consumption by Year (lbs/day; m							
TOG	ROG	CO	NOx	PM10	PM2.5	CO2	CH4
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
1.452	1.391	6.480	7.436	1.265	0.591	1668	0.046
1.053	1.010	3.179	5.391	0.348	0.344	1288	0.029
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0	0.000
Average Emissions and Consumption per Day (lbs/day; metr							
1.285	1.232	5.105	6.584	0.883	0.488	1510	0.039

U.S. Department of Transportation
Federal Highway Administration

California Division

650 Capitol Mall, Suite 4-100
Sacramento, CA 95814
(916) 498-5001
(916) 498-5008 (FAX)

May 18, 2026

In Reply, Refer To:
HDA-CA

ELECTRONIC CORRESPONDENCE ONLY

Sergio Aceves, Caltrans District 3 Director
California Department of Transportation – D3
703 B Street
Marysville, CA 95901-5556

SUBJECT: Project Level Conformity Determination for the U.S. Highway 50/Ponderosa Road/South Shingle Road Interchange Improvements Project (CTIPS ID# 207-0000-1265, FTIP ID# ELD19180, RTP ID# ELD19180, Federal Aid# 0300000352, EA# 03-2E5500)

Dear Mr. Aceves:

On April 03, 2026, the California Department of Transportation (Caltrans) submitted to the Federal Highway Administration (FHWA) a complete request for a project level conformity determination for the U.S. Highway 50/Ponderosa Road/South Shingle Road Interchange Improvements Project. The project is in an area that is designated as nonattainment for nonattainment for Ozone 8-Hour (2008), Ozone 8-Hour (2015), and PM2.5 (2006) for El Dorado County and attainment-unclassifiable for PM10(1987) and Carbon Monoxide (1971) for El Dorado County.

The project level conformity analysis submitted by Caltrans indicates that the project-level transportation conformity requirements of 40 CFR Part 93 have been met. The project is included in the Sacramento Area Council of Governments' (SACOG), 2025-2028 Federal Transportation Improvement Program (FTIP) and SACOG's 2023 Metropolitan Transportation Plan/Sustainable Communities Strategy (2023 MTP/SCS). The design concept and scope of the preferred alternative have not changed significantly from those assumed in the regional emissions analysis.

As required by 40 CFR 93.116 and 93.123, the localized PM 2.5 and PM 10 analyses are included in the documentation. The analyses demonstrate that the project will not create any new violations of the standards or increase the severity or number of existing violations.

Based on the information provided, FHWA finds that the U.S. Highway 50/Ponderosa Road/South Shingle Road Interchange Improvements Project conforms with the State Implementation Plan (SIP) in accordance with 40 CFR Part 93

If you have any questions pertaining to this conformity finding, please contact Jasmine Amanin at Jasmine.Amanin@dot.gov.

Sincerely,

Antonio Johnson
Director of Planning, Environment,
& Right of Way
Federal Highway Administration

APPENDIX B. TITLE NON-DISCRIMINATION VI POLICY STATEMENT

California Department of Transportation

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

September 2024

NON-DISCRIMINATION POLICY STATEMENT

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964, ensures "*No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.*"

Caltrans will make every effort to ensure nondiscrimination in all of its services, programs and activities, whether they are federally funded or not, and that services and benefits are fairly distributed to all people, regardless of race, color, or national origin. In addition, Caltrans will facilitate meaningful participation in the transportation planning process in a non-discriminatory manner.

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

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

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

TONY TAVARES
Director

APPENDIX C. MARCH 2018 LETTER ADDRESSING TRANSPORTATION CONFORMITY REQUIREMENTS FOR CARBON MONOXIDE IN CALIFORNIA CARBON MONOXIDE MAINTENANCE AREAS

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

MAR 2 t 2018

Muhaned Aljabiry, Chief
Office of Federal Transportation Management Program
California Department of Transportation
1120 N Street, Rm 4400, MS-82
Sacramento, CA 95814

Dear Mr. Aljabiry:

The U.S. Environmental Protection Agency (EPA) is providing this letter to document that the transportation conformity requirements under Clean Air Action (CAA) section l 76(c) for the Carbon Monoxide (CO) maintenance areas included in the table below will end on June I, 2018. This date marks 20 years from the redesignation of the areas to attainment for the CO National Ambient Air Quality Standard **(NAAQ S)**[1].

California Carbon Monoxide Maintenance Areas

Bake rsfield	Chico
Fresno	Modesto
Lake Tahoe N011h Shore	Lake Tahoe South Shore
Sacramento	San Diego
San Francisco-Oakland-San Jose	Stockton

Under 40 CFR 93.102(b)(4) of the EPA's regulations, transportation conformity applies to maintenance areas through the 20-year maintenance planning period, unless the maintenance plan specifies that the transportation conformity requirements apply for a longer time period. Pursuant to CAA's section 176(c)(5) and as explained in the preamble of the 1993 final rule, conformity applies to areas that are designated nonattainment or are subject to a maintenance plan approved under CAA section 175A. The section 175A maintenance planning period is 20 years, unless the applicable implementation plan specifies a longer maintenance period.[2] The EPA further clarified this conformity provision in its January 24, 2008 final rule[3].

The approved maintenance plan for these areas did not extend the maintenance plan period beyond 20 years from redesignation. Consequently, transportation conformity requirements for CO will cease to apply after June 1, 2018 (i.e., 20 years after the effective date of the EPA's approval of the first 10-year maintenance plan and redesignation of the areas to attainment for the CO **NAAQS).** As a result, these areas' Metropolitan Planning Organizations may reference this letter to indicate that as of June 1, 2018,

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I *See* 63 **FR** 15305 (March 31, 1998) (approval of redesignation request and first I 0-year maintenance plan) and 70 FR 71776 (November 30. 2005) (approval of second IO-year maintenance plan)
2 *See* 58 FR 62188, 62206 (November 24, 1993)
3 *See* 73 FR 4420, at 4434-5 (January 24, 2008)

transportation conformity requirements no longer apply for the CO NAAQS for Federal Highway Administration/ Federal Transit Association projects as defined in 40 CFR 93.IO1. Even though the conformity obligation for CO has ended, the terms of the maintenance plans remain in effect and all measures and requirements contained in the plans apply until the state submits, and the EPA approves, a revision to the state plan[4]. Such a State Implementation Plan revision would have to comply with the anti-backsliding requirements of CAA section 110(1), and if applicable, CAA section 193, if the intent ofthe revision is to remove a control measure or to reduce its stringency.

If you have any questions about the transportation conformity requirements, please contact me at (415) 972-3183 or Karina O'Connor of my staff at (775) 434-8176.

Sincerely,

Elizabeth J. Adams
Acting Director, Air Division

cc: Rodeny Langstaff, Caltrans
Nesamani Kalandiyur, California Air Resources Board
Tasha Clemons, Federal Highway Administration
Stew Sonnenberg, Federal Highway Administration
Christina Leach, Federal Highway Administration
Ted Matley, Federal Transit Administration
Ahron Hakimi, Kern Council of Governments
Jon Clark, Butte County Association of Governments
Steve Heminger, Metropolitan Transportation Commission
James Corless, Sacramento Area Council of Governments
Kim Kawanda, San Diego Association of Governments
Tony Boren, Fresno Council of Governments
Rosa De Leon Park, Stanislaus Council of Governments
Andrew Chesley, San Joaquin Council of Governments
Joanne Marchetta, Tahoe Regional Planning Association

4 *See General Mo tors Corp. v. United States,* 496 U.S. 530 (1990)

APPENDIX D. COMPREHENSIVE SPECIES OCCURRENCES TABLES and USFWS, NMFS, CDFW-CNDDB, AND CNPS SPECIES LISTS

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Amphibian Species						
California red-legged frog	*Rana draytonii*	Fed: State: CDFW:	T -- SSC	The species is endemic to California and northern Baja California. Inhabits lowlands and foothills in or near permanent sources of deep water with dense, shrubby, or emergent riparian vegetation. Associated with humid forests, woodlands, grasslands, coastal scrub, and streamsides. The species requires 11-20 weeks of permanent water for larval development and must have access to estivation habitat; estivation occurs from late summer to early winter. If wetlands are dry, requires animal burrows or other moist refuges. Occurs close to permanent and quiet stream pools, marshes, and ponds. Breeds from March to July in northern regions and January to July in southern regions. Occurs from elevations near sea level to 5,200 feet.	A	**Presumed Absent:** Protocol-level surveys within the Project area did not detect any evidence of this species the within the Project area or nearby ponds. There are also no recent, nearby CNDDB occurrences documented within 10 miles of the Project area.
California tiger salamander - central California DPS	*Ambystoma californiense pop. 1*	Fed: State: CDFW:	T T WL	Inhabits annual grasslands, oak savanna, mixed woodland edges, and lower elevation coniferous forest. Requires underground refuges, especially ground squirrel burrows, vernal pools, or other seasonal water sources for breeding. Breeding occurs December through February in fish-free ephemeral ponds.	A	**Presumed Absent:** The Project area lacks breeding habitat for this species including ponds, lakes and vernal pools. There are also no CNDDB occurrences of the species documented within 10 miles of the Project area.
foothill yellow-legged frog - south Sierra DPS	*Rana boylii pop. 5*	Fed: State: CDFW:	E E --	Inhabits shallow streams and riffles with rocky substrate and open, sunny banks in a variety of habitats including chaparral and woodland forests. Tadpoles require water for at least three or four months to complete development. Breeds March to May, with eggs laid in clusters on the downstream side of rocks in shallow, slow-moving water, attached to rocks, pebbles, and vegetation. Occurs from	A	**Presumed Absent:** The BSA lacks suitable rocky stream channel habitat for breeding. There are also no presumed extant CNDDB occurrences of the species documented within 10 miles of the Project area.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				elevations near sea level to 6,700 feet.		
Western spadefoot	*Spea hammondii*	Fed: State: CDFW:	PT -- SSC	Inhabits open areas with sandy or gravelly soils within mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Burrows underground for most of the year and is active above ground during rainfall. Requires vernal, shallow, temporary pools formed by heavy winter rains for reproduction. These pools must be free of bullfrogs, fish, and crayfish. Breeds from late winter to March.	A	**Presumed Absent:** No suitable open areas with sandy or gravelly soils and no vernal pool habitat within the BSA. There is only one CNDDB occurrence documented within 10 miles of the Project area, located approximately 9.7 miles northwest, just below Mormon Island Dam (2011). Due to lack of suitable habitat and lack of nearby occurrences, this species is presumed absent.
Bird Species						
American goshawk	*Accipiter atricapillus*	Fed: State: CDFW:	-- -- SSC	Uncommon year-round resident in California. Throughout their range, whether at sea level or in alpine settings, American Goshawks nest in mature and old-growth forests with more than 60% closed canopy. Western birds build nests in conifers, such as Douglas-fir, white fir, California red fir, ponderosa pine, western larch, and western hemlock, along with deciduous trees including aspens and paper birch. Goshawks often build nests near breaks in the canopy, such as a forest trail, jeep road, or opening created by a downed tree, and prefer sites with a creek, pond, or lake nearby. Goshawks hunt in the forest, along riparian corridors, and in more open habitat, such as the sagebrush steppes.	A	**Presumed Absent:** The BSA is outside of the elevational range of this species and lacks suitable riparian, forest and meadow habitat. There are also no CNDDB occurrences of the species documented within 10 miles of the Project area.
Bald eagle	*Haliaeetus leucocephalus*	Fed: State: CDFW:	D E FP	Species occurs near ocean shores, lakes, rivers, rangelands, and coastal wetlands for nesting and wintering; nesting occurs within one mile of a water source with abundant fish near mountain forests and woodlands. The species nests in large, old growth, or	A	**Presumed Absent:** No suitable large bodies of water are present within the BSA necessary for nesting sites. There are also no nearby CNDDB occurrences within 10 miles of the Project area.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				dominant live trees with open branches. Prefers ponderosa pines and often chooses the largest tree in a stand. Usually will not nest near evident human disturbance. Prefers lower elevations and not found in the high Sierra Nevada. The breeding season is from February through July.		
Bank swallow	*Riparia riparia*	Fed: State: CDFW:	-- T --	A migratory colonial nester inhabiting lowland and riparian habitats west of the deserts during spring through fall. Majority of current breeding populations occur along the Sacramento and Feather Rivers in the north Central Valley. Forages in grassland, brushland, wetlands, and cropland during migration. Requires vertical banks or cliffs with fine textured/sandy soils for nesting (tunnel and burrow excavations). Nests exclusively near streams, rivers, lakes, or the ocean. Breeds from May through July.	A	**Presumed Absent:** The Project area lacks lowland and riparian habitats. There are also no vertical banks or cliffs with sandy soils present in the Project area that can be used as nesting habitat. There are also no recent CNDDB occurrences of the species documented within 10 miles of the Project area.
Burrowing owl	*Athene cunicularia*	Fed: State: CDFW:	-- CE SSC	The species inhabits arid, open areas with sparse vegetation cover such as deserts, abandoned agricultural areas, grasslands, and disturbed open habitats. Can be associated with open shrub stages of pinyon-juniper and ponderosa pine habitats. Nests in old small mammal burrows but may dig own burrow in soft soil. Nests are lined with excrement, pellets, debris, grass, and feathers. The species may use pipes, culverts, and nest boxes, and even buildings where burrows are scarce. Breeding occurs March through August (below 5,300 feet).	A	**Presumed Absent:** No suitable grassland habitat available within the BSA. The nearest documented CNDDB occurrence is located approximately 8.2 miles southwest of the Project area (2006). Due to lack of suitable habitat, this species is presumed absent.
California black rail	*Laterallus jamaicensis coturniculus*	Fed: State: CDFW:	-- T FP	A rare, yearlong California resident of brackish and freshwater emergent wetlands in delta and coastal locations including the San Francisco Bay area, Sacramento-San Joaquin	A	**Presumed Absent:** The Project area lacks brackish and freshwater emergent wetlands. There is only one CNDDB occurrence documented within 10 miles of the Project area, located

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				Delta, Morro Bay, the Salton Sea, and lower Colorado River. More than 90% of the species are found in the tidal salt marshes of the northern San Francisco Bay region, predominantly in San Pablo and Suisun Bays. Smaller populations occur in the San Francisco Bay, the Outer Coast of Marin County, and freshwater marshes in the foothills of the Sierra Nevada. The species is extirpated from San Diego County and the majority of coastal southern California. Occurs in tidal emergent wetlands dominated by pickleweed, in brackish marshes dominated by bulrushes with pickleweed, and in freshwater wetlands dominated by bulrushes, cattails, and salt grass. Species prefers high wetland areas, away from areas experiencing fluctuating water levels. Requires vegetation providing adequate overhead cover for nesting. Eggs are laid from March through June.		approximately 6.7 miles southeast (2017). Due to lack of suitable habitat, this species is presumed absent.
California yellow warbler	*Dendroica petechia brewsteri*	Fed: State: CDFW:	-- -- SSC	Breeds in several southern California mountain ranges and throughout most of San Diego County. Species prefers to nest in areas with trees and shrubs typical of low, open-canopy riparian woodland. Species has been known to breed in riparian woodlands from coastal and desert lowlands and montane shrubbery in open conifer forests. Occurs up to 8,000 feet in the Sierra Nevada. Breeds April-August.	A	**Presumed Absent:** The Project area lacks riparian woodland, coastal and desert woodlands and coniferous forest habitats. There are also no CNDDB occurrences of the species documented within 10 miles of the Project area.
Cooper's hawk	*Accipiter cooperii*	Fed: State: CDFW:	-- -- WL	A breeding resident throughout most of the wooded portion of the state. Breeds in southern Sierra Nevada foothills, New York Mts., Owens Valley, and other local areas in southern California. Ranges from sea level to above 2700 m (0-9000 ft). Dense stands of live oak, riparian	A	**Presumed Absent:** While this species may visit the Project area occasionally, especially in winter, it is unlikely to nest in this vicinity due to the high levels of existing disturbance due to adjacent traffic and residential developments. There are also no CNDDB occurrences

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				deciduous, or other forest habitats near water used most frequently. Hunts in broken woodland and habitat edges; catches prey in air, on ground, and in vegetation.		documented within 10 miles of the Project area.
Ferruginous hawk	*Buteo regalis*	Fed: State: CDFW:	-- -- WL	Inhabit open areas such as grasslands, sagebrush, saltbush-greasewood shrublands, and edges of pinyon-juniper forests. Prefer to forage in grasslands with abundant small mammal populations. The species nests on lone trees, cliffs, utility structures, outcrops, boulders, shrubs, knolls, or haystacks. If they do ground nest, it will be on a slope or hill crest.	A	**Presumed Absent:** The Project area is highly developed and lacks contiguous open natural habitat communities where this species generally occurs. There is also no suitable nesting habitat in the Project area including lone trees, cliffs, utility structures, outcrops, boulders, shrubs, knolls, or haystacks. There is only one CNDDB occurrence documented within 10 miles of the Project area, located approximately 8.4 miles southwest in open grassland habitat (2014). Due to lack of suitable habitat and lack of nearby occurrences, this species is presumed absent.
Golden eagle	*Aquila chrysaetos*	Fed: State: CDFW:	-- -- FP	Inhabits rolling foothills, mountain areas, sage-juniper flats, and desert communities. Requires open terrain for hunting, often utilizing rolling foothills and mountain terrain, wide arid plateaus deeply cut by streams and canyons, open mountain slopes, and cliffs and rock outcrops, grasslands and early successional stages of forest and shrub habitats. Territory is estimated to average 36 mi^2 in southern California and 48 mi^2 in northern California. Nests on cliffs of all heights and in large trees in open areas; may reuse previous nest sites. Breeds from late January through August (0-11,500 feet).	A	**Presumed Absent:** No suitable open terrain with cliffs, arid plateaus, streams or canyons within the BSA. The nearest CNDDB occurrence is located approximately 8.5 miles northwest in which a nest was observed in a Gray Pine tree in a residential area (2015). Due to lack of suitable habitat within the Project area, this species is presumed absent.
Grasshopper sparrow	*Ammodramus savannarum*	Fed: State: CDFW:	-- -- SSC	Inhabits foothills and lowlands with dry, dense, well-drained grasslands with a variety of grasses, tall forbs, and shrubs for perches. In southern California largely utilizes hillsides, and lower mountain slopes. Nests are composed of grasses and forbs on	A	**Presumed Absent:** No suitable well-drained grassland habitat present within the BSA. There are also no CNDDB occurrences of the species documented within 10 miles of the Project area.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				slight depressions in the ground. Species may form small groups when nesting. Breeds April through July (0-5,000 feet).		
Song sparrow ("Modesto" population)	*Melospiza melodia pop. 1*	Fed: State: CDFW:	-- -- SSC	An endemic bird found exclusively in the north-central portion of the Central Valley, with highest densities in the Butte Sink and Sacramento-San Joaquin River Delta. The species is usually found in open brushy habitats, along the borders of ponds or streams, abandoned pastures, desert washes, thickets, or woodland edges. In addition, there is a strong affinity for emergent freshwater marshes dominated by tules and cattails, riparian willow thickets, and valley oak forests with a blackberry understory. Nests found in base of shrubs or clumps of grass, requiring low, dense vegetation for cover, usually near water. Breeds from March through August.	A	**Presumed Absent:** The Project area lacks suitable nesting and foraging habitat for this species. There are also no CNDDB occurrences of the species documented within 10 miles of the Project area.
Swainson's hawk	*Buteo swainsoni*	Fed: State: CDFW:	-- T --	Inhabits grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, alfalfa or grain fields that support a stable rodent prey base. Breeds March to late August.	A	**Presumed Absent:** The BSA is outside of the elevational range of the species and lacks suitable foraging habitat. There is only one CNDDB occurrence of the species within 10 miles of the Project area, located approximately 9.9 miles southwest near White Rock Road (1982). Due to lack of suitable habitat and lack of nearby occurrences, this species is presumed absent.
Tricolored blackbird	*Agelaius tricolor*	Fed: State: CDFW:	-- T SSC	Inhabits freshwater marsh, swamp and wetland communities, but may utilize agricultural or upland habitats that can support large colonies, often in the Central Valley area. Requires dense nesting habitat that is protected from predators, is within 3-5 miles from a suitable foraging area containing insect prey and is within 0.3 miles of open water. Suitable foraging includes wetland,	A	**Presumed Absent:** The BSA lacks freshwater marsh, swamp and wetland communities. There is also no suitable nesting habitat present within the Project area.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				pastureland, rangeland, at dairy farms, and some irrigated croplands (silage, alfalfa, etc.). Nests in dense cattails, tules, willow, blackberry, wild rose, or tall herbs. Nests mid-March to early August, but may extend until October or November in the Sacramento Valley region.		
White-tailed kite	*Elanus leucurus*	Fed: State: CDFW:	-- -- FP	Inhabits rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Prefers open grasslands, meadows or marshes for foraging close to isolated, dense-topped trees for nesting and perching. In southern California, will roost in saltgrass and Bermuda grass. Often found near agricultural lands. Nests are placed near the tops of dense oak, willow, or other tree stands. Breeds February through October.	A	**Presumed Absent:** The Project area lacks open foraging habitat. There are also no recent, nearby CNDDB occurrences of the species within 10 miles of the Project area.
Fish Species						
Chinook salmon - Central Valley Spring Run ESU	*Oncorhynchus tshawytscha pop. 11*	Fed: State: CDFW:	T T --	Spring-run Chinook enter the Sacramento-San Joaquin River system to spawn, requiring larger gravel particle size and more water flow through their redds than other salmonids. Remaining runs occur in Butte, Mill, Deer, Antelope, and Beegum Creeks, tributaries to the Sacramento River. Known to occur in Siskiyou and Trinity counties.	A	**Presumed Absent:** The Project area lacks permanent aquatic habitat that could support this species.
Delta smelt	*Hypomesus transpacificus*	Fed: State: CDFW:	T E --	This species is endemic to California and can tolerate a wide range of salinity and temperatures but is most commonly found in brackish waters. Juveniles require shallow waters with food rich sources. Adults require adequate flow and suitable water quality for spawning in winter and spring. Occurs within the Sacramento-San Joaquin Delta and seasonally within the Suisun Bay,	A	**Presumed Absent:** The Project area lacks permanent aquatic habitat that could support this species.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				Carquinez Strait and San Pablo Bay. Most often occurs in partially saline waters.		
Steelhead - Central Valley DPS	*Oncorhynchus mykiss irideus pop. 11*	Fed: State: CDFW:	T -- SSC	This DPS includes naturally spawned anadromous O. mykiss (steelhead) originating below natural and manmade impassable barriers from the Sacramento and San Joaquin Rivers and their tributaries; excludes such fish originating from San Francisco and San Pablo Bays and their tributaries. Spawning occurs in watersheds while rearing occurs in freshwater or estuary habitats prior to emigrating to the ocean in the winter and spring. Preferred spawning sites contain gravel substrate with sufficient water flow and riverine cover. Rearing habitat contains sufficient feeding with associated riparian forest containing willow and cottonwoods. Migration upstream for reproduction occurs from October to May with spawning occurring January to April.	A	**Presumed Absent:** The Project area lacks permanent aquatic habitat that could support this species.
Invertebrate Species						
California linderiella	*Linderiella occidentalis*	Fed: State: CDFW:	-- -- --	The California fairy shrimp belongs to the family Linderiellidae. Measuring approximately 9 to 10 mm, California fairy shrimp are smaller than fairy shrimps in other families. Little is known about the historical range of the species; the California fairy shrimp was identified in 1990 and is known to occur in vernal pool habitats throughout the Central Valley and Southern California. Remaining populations of this species are fragmented due to the extensive loss of vernal pool habitat in California. However, individuals of this species have been identified all over the state.	A	**Presumed Absent:** The BSA lacks vernal pool habitat that could support this species.
Monarch butterfly	*Danaus plexippus*	Fed: State:	PT --	Winter roosts along the coast from northern Mendocino to Baja	A	**Presumed Absent:** No milkweed species was observed within the Project

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
		CDFW:	--	California. Utilizes wind protected tree groves in proximity to nectar and water sources. Host plants include milkweed species such as *Asclepias syriaca, A. incarnara,* and *A. speciosa.* Suitable habitat includes fields, meadows, weedy areas, marshes, and roadsides. Mass adult migrations occur from August to October.		area during the biological surveys and rare plant surveys.
Western bumble bee	*Bombus occidentalis*	Fed: State: CDFW:	-- CE --	The habitat for this species is described as open grassy areas, urban parks and gardens, chaparral and shrub areas, and mountain meadows. Most reports of *B. occidentalis* nests are from underground cavities such as old squirrel or other animal nests and in open west-southwest slopes bordered by trees, although a few nests have been reported from above-ground locations such as in logs among railroad ties. Elevations of known sites range from sea level to over 2,000 m asl.	A	**Presumed Absent:** The BSA lacks suitable habitat communities for the species.
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	Fed: State: CDFW:	T -- --	Species requires red or blue elderberry (*Sambucus sp.*) as host plants. Typically occurs in moist valley oak woodlands associated with riparian corridors in the lower Sacramento River and upper San Joaquin River drainages. Adults are active, feeding, and breeding from March until June (sea level-3,000 feet).	A	**Presumed Absent:** No elderberry shrubs were identified within the Project area during the biological surveys conducted in 2008, 2015 and 2023.
Vernal pool fairy shrimp	*Branchinecta lynchi*	Fed: State: CDFW:	T -- --	In California, species inhabits portions of Tehama County, south through the Central Valley, and scattered locations in Riverside County and the Coast Ranges. Species is associated with smaller and shallower cool-water vernal pools approximately 6 inches deep and short periods of inundation. In the	A	**Presumed Absent:** The BSA lacks vernal pool habitat that could support this species.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				southernmost extremes of the range, the species occurs in large, deep cool-water pools. Inhabited pools have low to moderate levels of alkalinity and total dissolved solids. The shrimp are temperature sensitive, requiring pools below 50 F to hatch and dying within pools reaching 75 F. Young emerge during cold-weather winter storms.		
Vernal pool tadpole shrimp	*Lepidurus packardi*	Fed: State: CDFW:	E -- --	Distribution of vernal pool tadpole shrimp is patchy from Shasta County to Tulare County. Inhabits vernal pools and swales containing clear to highly turbid waters such as pools located in grass bottomed swales of unplowed grasslands, old alluvial soils underlain by hardpan, and mud-bottomed pools with highly turbid water. Can also be found in ephemeral drainages, stock ponds, reservoirs, and ditches.	A	**Presumed Absent:** The BSA lacks vernal pool habitat that could support this species.
Mammal Species						
American badger	*Taxidea taxus*	Fed: State: CDFW:	-- -- SSC	Prefers treeless, dry, open stages of most shrub and herbaceous habitats with friable soils and a supply of rodent prey. Species also inhabits forest glades, meadows, marshes, brushy areas, hot deserts, and mountain meadows. Species maintains burrows within home ranges estimated between 338-1,700 acres, dependent on seasonal activity. Burrows are frequently re-used, but new burrows may be created nightly. Young are born in March and April within burrows dug in relatively dry, often sandy, soil, usually in areas with sparse overstory cover. Species is somewhat tolerant of human activity, but is sensitive to automobile mortality, trapping, and persistent poisons (up to 12,000 feet).	A	**Presumed Absent:** The Project area lacks contiguous open natural habitats. There is marginal grassland and oak woodland habitat present within the BSA, but it is bisected by developed roadways and residential and commercial developments. There are also no documented CNDDB occurrences within 10 miles of the Project area.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Fisher	*Pekania pennanti*	Fed: State: CDFW:	-- -- SSC	Inhabits mature, dense habitats of north coast coniferous forest and old growth and riparian forest communities with a high percent of canopy closure, large trees and snags with cavities and other deformities, large diameter downed wood and multiple canopy layers. Forest structural composition is critical for species; diversity in tree size and shape, light gaps and associated understory vegetation, natural structures (downed trees, broken limbs, snags, etc.) and limbs close to the ground. Breeds from late February to late April (1,970-8,530 feet). In the Southern Sierra Nevada, the species is not found at elevations below 4,500 feet.	A	**Presumed Absent:** The Project area lacks mature dense coniferous or riparian forest habitat. There are also no recent documented CNDDB occurrences of the species within 10 miles of the Project area.
Fringed myotis	*Myotis thysanodes*	Fed: State: CDFW:	FSC -- --	Species of vesper bat with widespread but patchy distribution in western North America. Utilizes a wide range of habitats. Most common habitats this species is found are oak, juniper and pinyon woodlands or ponderosa pine forest habitat at middle elevations. Mostly found in dry habitats where open areas such as grasslands or deserts are interspersed with mature forests.	A	**Presumed Absent:** The Project area lacks roosting habitat such as caves, mine tunnels, rock crevices and old buildings. There are also no CNDDB occurrences of the species documented within 10 miles of the Project area.
Long-eared myotis	*Myotis evotis*	Fed: State: CDFW:	FSC -- --	This species is widespread throughout California but uncommon in most of its range. Occurs along the entire coast and in the Sierra Nevada, Cascades, and Great Basin from the Oregon border south through the Tehachapi Mountains to the Coast Ranges. This species has been found in brush, woodland and forest habitats, from sea level to at least 9000 feet. This species roosts in buildings, crevices, spaces under bark, and snags. Caves are used primarily as night roosts.	A	**Presumed Absent:** The Project area lacks roosting habitat for this species. There are also no CNDDB occurrences of the species documented within 10 miles of the Project area.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Long-legged myotis	*Myotis volans*	Fed: State: CDFW:	FSC -- --	This species inhabits woodland and forest habitats above 1200 m (4000 ft). Also forages in chaparral, coastal scrub, Great Basin shrub habitats, and in early successional stages of woodlands and forests. Uncommon in desert and arid grassland habitats. Roosts in rock crevices, buildings, under tree bark, in snags, mines, and caves. Separate day and night roosts may be used. Trees probably are the most important day roosts. Caves and mines are used only as night roosts.	A	**Presumed Absent:** The Project area is below the elevational range where this species generally occurs. There are also no CNDDB occurrences of the species documented within 10 miles of the Project area.
Pale Townsend's Big-eared bat	*Corynorhinus Townsendii pallescens*	Fed: State: CDFW:	FSC -- --	Species occurs throughout California in all habitats except subalpine and alpine communities. Requires caves, mines tunnels, buildings or man-made structures for day and night roosts. Rarely roots in tree cavities, limited to males and non-reproductive females. Young born May-June (0-6,561 feet 10,800 feet elevation).	A	**Presumed Absent:** The Project area lacks suitable roosting habitat for this species including caves, mines, tunnels, buildings or manmade structures. There are also no CNDDB occurrences of the species documented within 10 miles of the Project area.
Pallid bat	*Antrozous pallidus*	Fed: State: CDFW:	-- -- SSC	Inhabits low elevations of deserts, grasslands, shrub lands, woodlands and forests year-round. Most common in open, dry habitats with rocky areas for roosting. Forages over open ground within 1-3 miles of day roosts. Prefers caves, crevices, and mines for day roosts, but may utilize hollow trees, bridges and buildings. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites. Maternity colonies form early April and young are born April-July (below 10,000 feet).	A	**Presumed Absent:** The Project area lacks suitable roosting habitat for this species. The Project area is also highly developed and lacks open natural habitats for foraging. There are also no nearby CNDDB occurrences of the species.
Small-footed myotis	*Myotis ciliolabrum*	Fed: State: CDFW:	FSC -- --	The small-footed myotis is a common bat of arid uplands in California. It occurs in a wide variety of habitats, primarily in relatively arid wooded and brushy uplands near water. It prefers open stands in forests and woodlands	A	**Presumed Absent:** The Project area lacks suitable roosting habitat for this species. There are also no CNDDB occurrences of the species documented within 10 miles of the Project area.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				as well as brushy habitats. Streams, ponds, springs, and stock tanks are used for drinking and feeding. This species is found from sea level to at least 2700 m (8900 ft). This bat seeks cover in caves, buildings, mines, crevices, and occasionally under bridges and under bark. Separate night roosts may be used, and have been found in buildings and caves.		
Spotted bat	*Euderma maculatum*	Fed: State: CDFW:	FSC -- --	Occupies a wide variety of habitats from arid deserts and grasslands through mixed conifer forests. Foraging habitat includes marshes, meadows, riparian zones, shrub-steppe, and open ponderosa pine forest. Prefers rock crevices in cliffs or caves for roosting. Species is solitary but may roost with other species. Mates in autumn and births before June (sea level-10,000 feet).	A	**Presumed Absent:** The Project area lacks caves and cliffs that could provide suitable roosting habitat for the species. There are also no CNDDB occurrences documented within 10 miles of the BSA.
Western mastiff bat	*Eumops perotis californicus*	Fed: State: CDFW:	-- -- SSC	Inhabits many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral. Prefers open, rugged, rocky areas where suitable crevices are available for day roosts. Roots in cliff face crevices (usually granite or consolidated sandstone), high buildings, trees and tunnels. Roosting sites must have a minimum 10-foot vertical drop. Births early April through August or September (sea level-8,475 feet).	HP	**Presumed Absent:** The BSA contains oak woodland habitat that may provide suitable roosting habitat for this species. However, there are no CNDDB occurrences of the species documented within 10 miles of the BSA. Due to lack of nearby occurrences, this species is presumed absent.
Yuma myotis	*Myotis yumanensis*	Fed: State: CDFW:	FSC -- --	The Yuma myotis is common and widespread in California. It is uncommon in the Mojave and Colorado Desert regions, except for the mountain ranges bordering the Colorado River Valley. Found in a wide variety of habitats ranging from sea level to 3300 m (11,000 ft), but it is uncommon to rare above 2560 m (8000 ft). Optimal habitats are open	A	**Presumed Absent:** The Project area lacks roosting habitat for this species. There are also no CNDDB occurrences of the species documented within 10 miles of the Project area.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				forests and woodlands with sources of water over which to feed. Roosts in buildings, mines, caves, or crevices. The species also has been seen roosting in abandoned swallow nests and under bridges. Separate, often more open, night roosts may be used.		
Reptile Species						
California horned lizard	*Phrynosoma coronatum frontale*	Fed: State: CDFW:	FSC -- --	California horned lizards can be found in a variety of habitats on the floor of the San Joaquin Valley, including grasslands and shrublands. They require warm, dry areas with patches of fine, loose soil or sand and with open spaces for sunning and foraging. They are found in coastal mountains and valleys, particularly in areas with sunshine and sandy soils.	A	**Presumed Absent:** The Project area lacks suitable habitat for this species. There are also no CNDDB occurrences documented within 10 miles of the Project area.
Coast horned lizard	*Phrynosoma blainvillii*	Fed: State: CDFW:	-- SSC --	Inhabits valley-foothill hardwood, conifer forest, and riparian habitats, as well as pine-cypress, juniper woodland, and annual grasslands with sandy areas, washes or flood plains. Frequently found near ant hills. Egg laying occurs from May to June, and some females may lay two clutches per year (sea level-8,000 feet).	A	**Presumed Absent:** The Project area contains some blue oak woodland habitat that may provide suitable habitat for this species. However, the project area lacks the loose sandy soils which this species prefers. The oak woodland habitat is also surrounded by roadways and developed buildings which reduces the habitat suitability in the Project area. Based on lack of suitable habitat within the Project area, this species is presumed absent.
Giant garter snake	*Thamnophis gigas*	Fed: State: CDFW:	T T --	A highly aquatic species that inhabits marsh, swamp, wetland (including agricultural wetlands), sloughs, ponds, rice fields, low gradient streams and irrigation/drainage canals adjacent to uplands. Ideal habitat contains both shallow and deep water with variations in topography. Species requires adequate water during the active season (April-November), emergent, herbaceous wetland vegetation, such as cattails and bulrushes, for escape cover and foraging habitat and	A	**Presumed Absent:** No suitable aquatic habitat available within the BSA. BSA is outside of the elevational range of this species.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				mammal burrows estivation. Requires grassy banks and openings in waterside vegetation for basking and higher elevation uplands for cover and refuge from flood waters during winter dormant season. Mating occurs in the spring and females bear live young.		
Northwestern pond turtle	*Actinemys marmorata*	Fed: State: CDFW:	PT -- SSC	A fully aquatic turtle of ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches with aquatic vegetation. Suitable habitat includes woodland, forests, and grasslands. Requires logs, rocks, cattail mats, and exposed banks for basking. Suitable upland habitat (sandy banks or grassy open field) is required for reproduction, which begins in April and ends with egg laying as late as August (sea level to 4,700 feet).	A	**Presumed Absent:** The Project area lacks permanent aquatic habitat that could support this species.
Plant Species						
Big-scale balsamroot	*Balsamorhiza macrolepis*	Fed: State: CNPS:	-- -- 1B.2	A perennial herb inhabiting open grassy or rocky slopes and valleys within chaparral, cismontane woodland, valley and foothill grassland communities; sometimes occurs in serpentinite soils. Flowers March-June (300-5,100 feet).	HP	**Presumed Absent:** The Project area contains grassland and oak woodland habitat that could support individuals of this species. However, no individuals were observed during the 2008, 2015 or 2023 biological and rare plant surveys. There are also no CNDDB occurrences of the species documented within 10 miles of the Project area.
Bisbee Peak rush-rose	*Crocanthemum scoparium*	Fed: State: CNPS:	-- -- 3.2	A perennial evergreen shrub inhabiting serpentinite, lone or gabbroic soils of chaparral communities. Flowers April-June (150-2,750 feet).	A	**Presumed Absent:** The Project area lacks suitable soils for this species. This species was not detected within the Project area during the field surveys.
Chaparral sedge	*Carex xerophila*	Fed: State: CNPS:	-- -- 1B.2	A perennial herb native to California, inhabiting serpentine or dry, gabbroic soils of chaparral, cismontane woodland, or lower montane coniferous forest communities. Flowers March-June (1,480-2,530 feet).	A	**Presumed Absent:** The Project area lacks suitable soils for this species. This species was not detected within the Project area during the field surveys.
El Dorado bedstraw	*Galium californicum ssp. sierrae*	Fed: State:	E R	A perennial herb inhabiting gabbroic soils of chaparral, cismontane	A	**Presumed Absent:** No populations of this species are known from the vicinity

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
		CNPS:	1B.2	woodland, lower montane coniferous forest, open pine, and oak forest communities. Flowers May-June (330-1,920 feet). Known from approximately ten occurrences in El Dorado County.		of the Project area. In addition, the species was not detected within the Project area during the 2008, 2015 or 2023 biological surveys and rare plant surveys.
El Dorado County mule ears	*Wyethia reticulata*	Fed: State: CNPS:	-- -- 1B.2	A perennial herb inhabiting clay or gabbroic soils of wooded slopes, chaparral, cismontane woodland, and lower montane coniferous forest communities. Flowers May-August (500-2,070 feet). Known only from El Dorado County.	A	**Presumed Absent:** The Project area lacks suitable soils for this species. In addition, the species was not detected within the Project area during the 2008, 2015 or 2023 biological surveys and rare plant surveys.
Jepson's onion	*Allium jepsonii*	Fed: State: CNPS:	-- -- 1B.2	A perennial bulb inhabiting open, serpentine or volcanic slopes, and flats of chaparral, cismontane woodland, and lower montane coniferous forest communities. Flowers April-August (980-4,330 feet).	A	**Presumed Absent:** The Project area lacks serpentine soils. In addition, the species was not detected within the Project area during the 2008, 2015 or 2023 biological surveys and rare plant surveys.
Layne's ragwort	*Packera layneae*	Fed: State: CNPS:	T R 1B.2	A perennial herb inhabiting rocky, soils within chaparral and cismontane woodland communities. Flowers April-June (660-3,560 feet).	HP	**High Potential:** Populations of this species were observed in the Project area during the 2008 and 2015 biological surveys. On a subsequent survey in 2023, no plants were found in the Project area. This species has a high potential to occur based on the past occurrences within the Project area.
Nissenan manzanita	*Arctostaphylos nissenana*	Fed: State: CNPS:	-- -- 2B.3	A perennial evergreen shrub inhabiting open, rocky shale ridges, chaparral, woodland, and closed-cone coniferous forests. Flowers February-March (1,475-3,600 feet).	HP	**Presumed Absent:** The Project area contains marginal grassland habitat that could support individuals of this species. However, the species was not detected within the Project area during the 2008, 2015 or 2023 biological surveys and rare plant surveys.
oval-leaved viburnum	*Viburnum ellipticum*	Fed: State: CNPS:	-- -- 2B.3	A perennial deciduous shrub inhabiting chaparral, cismontane woodland, and lower montane coniferous forest. Flowers May-June (700-4,500 feet).	HP	**Presumed Absent:** The Project area contains marginal chamise chaparral habitat that may provide suitable habitat for this species. However, the species was not detected within the Project area during the 2008, 2015 or 2023 biological surveys and rare plant surveys. There are also no recent, nearby CNDDB

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
						occurrences documented within 10 miles of the Project area.
Parry's horkelia	*Horkelia parryi*	Fed: State: CNPS:	-- -- 1B.2	A perennial herb inhabiting openings within chaparral and cismontane woodland. Species is especially known within Ione soil formations but occurs on other soils. Flowers April-September (260-3,400 feet).	HP	**Presumed Absent:** The Project area contains marginal chamise chaparral habitat that may provide suitable habitat for this species. However, the species was not detected within the Project area during the 2008, 2015 or 2023 biological surveys and rare plant surveys. There are also no recent, nearby CNDDB occurrences documented within 10 miles of the Project area.
Pine Hill ceanothus	*Ceanothus roderickii*	Fed: State: CNPS:	E R 1B.1	An evergreen perennial shrub inhabiting rocky, gabbroic, or serpentine soils characterized by low concentrations of available K, P, S, Fe, and Zn of chaparral, oak/pine woodland, and cismontane woodland communities. Flowers April-June (800-2,070 feet). Known only from El Dorado County.	HP	**Presumed Absent:** The Project area contains some oak woodland and chamise chaparral habitat that could provide suitable habitat for this species. However, the species was not detected within the Project area during the 2008, 2015 or 2023 biological surveys and rare plant surveys.
Pine Hill flannelbush	*Fremontodendron decumbens*	Fed: State: CNPS:	E R 1B.2	A perennial evergreen shrub inhabiting rocky, gabbroic, or serpentinite soils of chaparral, cismontane woodland, and pine woodland communities. Flowers April-July (1,400-2,500 feet).	A	**Presumed Absent:** The Project area lacks suitable soils for this species. In addition, no individuals of this species were observed during the 2008, 2015 or 2023 biological surveys and rare plant surveys.
Red Hills soaproot	*Chlorogalum grandiflorum*	Fed: State: CNPS:	-- -- 1B.2	A perennial bulbiferous herb inhabiting open shrubby or wooded hills of chaparral, cismontane woodland, and lower montane coniferous forest communities. Occurs frequently within serpentine or gabbro soils; known to occur on non-ultramafic soils. Flowers May-June (800-4,070 feet).	A	**Presumed Absent:** The Project area lacks suitable soils for this species. In addition, no individuals of this species were observed during the 2008, 2015 or 2023 biological surveys and rare plant surveys.
Sanford's arrowhead	*Sagittaria sanfordii*	Fed: State: CNPS:	-- -- 1B.2	A perennial rhizomatous herb inhabiting freshwater marshes, swamps, ponds, and ditches. Flowers May-October (0-2,130 feet).	A	**Presumed Absent:** The Project area lacks freshwater marshes, swamps, ponds and ditches. There are also no recent nearby CNDDB occurrences within 10 miles of the Project area.
Sierra arching sedge	*Carex cyrtostachya*	Fed: State: CNPS:	-- -- 1B.2	A perennial herb inhabiting mesic lower montane coniferous forest, meadows and seeps, marshes and	A	**Presumed Absent:** The Project area lacks the habitat communities where this species is normally found. There are also

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				swamps, and margins of riparian forest communities. Flowers May-August (2,000-4,460 feet).		no CNDDB occurrences of the species documented within 10 miles of the Project area.
Spicate calycadenia	*Calycadenia spicata*	Fed: State: CNPS:	-- -- 1B.3	An annual herb endemic to California inhabiting slopes in foothill woodland and valley grassland habitat communities. Blooms May-September (245-2,295 feet).	HP	**Presumed Absent:** The Project area contains some grassland and oak woodland habitat that could provide suitable habitat for this species. However, there are no documented CNDDB occurrences of the species within 10 miles of the BSA. The species was not observed during the 2008, 2015 or 2023 survey efforts.
Stebbins' morning-glory	*Calystegia stebbinsii*	Fed: State: CNPS:	E E 1B.1	A perennial rhizomatous herb inhabiting gabbroic or serpentinite soils of chaparral openings and cismontane woodland communities. Flowers April-July (600-3,600 feet). Known from fewer than 20 occurrences in El Dorado and Nevada Counties.	A	**Presumed Absent:** The Project area lacks suitable soils for the species. No individuals of this species were detected within the Project area during the 2008, 2015 or 2023 surveys.
Tuolumne button-celery	*Eryngium pinnatisectum*	Fed: State: CNPS:	-- -- 1B.2	An annual/perennial herb inhabiting vernal pools, swales, intermittent streams, cismontane woodlands, and lower montane coniferous forests. Flowers May-August (230-3,000 feet).	HP	**Presumed Absent:** The Project area has one intermittent stream channel that could provide suitable habitat for this species. However, there are no documented CNDDB occurrences of the species within 10 miles of the BSA. The species was not observed during the 2008, 2015 or 2023 survey efforts.
Van Zuuk's morning-glory	*Calystegia vanzuukiae*	Fed: State: CNPS:	-- -- 1B.3	A perennial herb native to California, inhabiting gabbroic and serpentine soils in chaparral and cismontane woodland. Flowers May-August (1,600-3,900 feet).	A	**Presumed Absent:** The Project area lacks serpentine and gabbroic soils. There are also no documented CNDDB occurrences of the species within 10 miles of the BSA. The species was not observed during the 2008, 2015 or 2023 survey efforts

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Sacramento, CA 95825-1846
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In Reply Refer To: 06/03/2026 18:45:28 UTC
Project Code: 2026-0098363
Project Name: U.S. 50/Ponderosa Road/South Shingle Road Interchange Improvements Project

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/what-we-do.

It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

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".

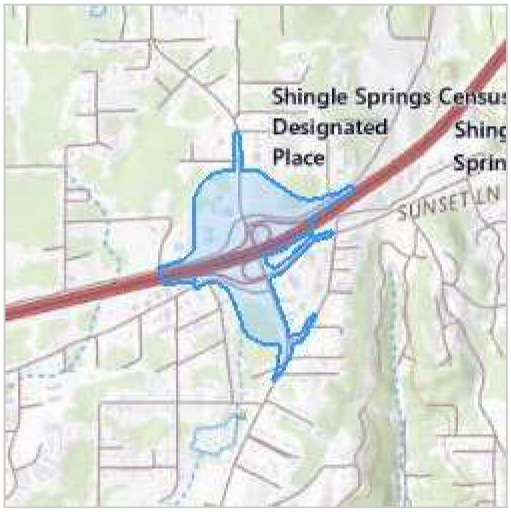
This species list is provided by:

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

PROJECT SUMMARY

Project Code: 2026-0098363
Project Name: U.S. 50/Ponderosa Road/South Shingle Road Interchange Improvements Project
Project Type: Road/Hwy - Maintenance/Modification
Project Description: Improvements to the interchange to increase capacity of both sides to include a total of 5 travel lanes.
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@38.662442150000004,-120.93905486685574,14z



Counties: El Dorado County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 10 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

REPTILES

NAME	STATUS
Northwestern Pond Turtle *Actinemys marmorata* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1111 General project design guidelines: https://ipac.ecosphere.fws.gov/project/D27ROXGMW5BBDD262IJXV2YTIY/documents/generated/11271.pdf	Proposed Threatened

AMPHIBIANS

NAME	STATUS
California Red-legged Frog *Rana draytonii* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891 General project design guidelines: https://ipac.ecosphere.fws.gov/project/D27ROXGMW5BBDD262IJXV2YTIY/documents/generated/11271.pdf	Threatened
Foothill Yellow-legged Frog *Rana boylii* Population: South Sierra Distinct Population Segment (South Sierra DPS) There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5133 General project design guidelines: https://ipac.ecosphere.fws.gov/project/D27ROXGMW5BBDD262IJXV2YTIY/documents/generated/11271.pdf	Endangered
Western Spadefoot *Spea hammondii* Population: Northern DPS No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5425 General project design guidelines: https://ipac.ecosphere.fws.gov/project/D27ROXGMW5BBDD262IJXV2YTIY/documents/generated/11271.pdf	Proposed Threatened

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743 General project design guidelines: https://ipac.ecosphere.fws.gov/project/D27ROXGMW5BBDD262IJXV2YTIY/documents/generated/11271.pdf	Proposed Threatened

FLOWERING PLANTS

NAME	STATUS
El Dorado Bedstraw *Galium californicum ssp. sierrae* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5209	Endangered
Layne's Butterweed *Senecio layneae* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4062	Threatened
Pine Hill Ceanothus *Ceanothus roderickii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3293	Endangered
Pine Hill Flannelbush *Fremontodendron californicum ssp. decumbens* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4818	Endangered
Stebbins' Morning-glory *Calystegia stebbinsii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3991	Endangered

CRITICAL HABITATS

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

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

IPAC USER CONTACT INFORMATION

Agency: Dokken Engineering
Name: Avery Vu
Address: 110 Blue Ravine Road, Suite 200
City: Folsom
State: CA
Zip: 95630-4713
Email avu@dokkenengineering.com
Phone: 9168580642

Quad Name **Pilot Hill**
Quad Number **38121-G1**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) - **X**
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) - **X**
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 - **X**
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) -

Essential Fish Habitat

Coho EFH -
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 Monica DeAngelis
monica.deangelis@noaa.gov
562-980-3232

MMPA Cetaceans -
MMPA Pinnipeds -

Quad Name **Clarksville**
Quad Number **38121-F1**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) - **X**
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) - **X**
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) -

Essential Fish Habitat

Coho EFH -
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 Monica DeAngelis
monica.deangelis@noaa.gov
562-980-3232

MMPA Cetaceans -
MMPA Pinnipeds -

Quad Name **Placerville**
Quad Number **38120-F7**

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) -

Essential Fish Habitat

Coho EFH -
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 Monica DeAngelis
monica.deangelis@noaa.gov
562-980-3232

MMPA Cetaceans -
MMPA Pinnipeds -

Quad Name **Latrobe**
Quad Number **38120-E8**

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) - **X**
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) -

Essential Fish Habitat

Coho EFH -
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 Monica DeAngelis
monica.deangelis@noaa.gov
562-980-3232

MMPA Cetaceans -
MMPA Pinnipeds -

Quad Name **Folsom SE**
Quad Number **38121-E1**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) - **X**
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) - **X**
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) -

Essential Fish Habitat

Coho EFH -
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 Monica DeAngelis
monica.deangelis@noaa.gov
562-980-3232

MMPA Cetaceans -
MMPA Pinnipeds -

Quad Name **Fiddletown**
Quad Number **38120-E7**

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) - **X**
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) -

Essential Fish Habitat

Coho EFH -
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 Monica DeAngelis
monica.deangelis@noaa.gov
562-980-3232

MMPA Cetaceans -
MMPA Pinnipeds -

Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Pilot Hill (3812171) OR Coloma (3812078) OR Garden Valley (3812077) OR Clarksville (3812161) OR Shingle Springs (3812068) OR Placerville (3812067) OR Fiddletown (3812057) OR Folsom SE (3812151) OR Latrobe (3812058))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Alabaster Cave harvestman *Banksula californica*	ILARA14020	None	None	GH	SH	
American bumble bee *Bombus pensylvanicus*	IIHYM24260	None	None	G3G4	S2	
American goshawk *Astur atricapillus*	ABNKC12061	None	None	G5	S3	SSC
bald eagle *Haliaeetus leucocephalus*	ABNKC10010	Delisted	Endangered	G5	S3	FP
bank swallow *Riparia riparia*	ABPAU08010	None	Threatened	G5	S3	
big-scale balsamroot *Balsamorhiza macrolepis*	PDAST11061	None	None	G2	S2	1B.2
Bisbee Peak rush-rose *Crocanthemum suffrutescens*	PDCIS020F0	None	None	G2?Q	S2?	3.2
Blennosperma vernal pool andrenid bee *Andrena blennospermatis*	IIHYM35030	None	None	G2	S1	
Brandegee's clarkia *Clarkia biloba ssp. brandegeeae*	PDONA05053	None	None	G4G5T4	S4	4.2
burrowing owl *Athene cunicularia*	ABNSB10010	None	Candidate Endangered	G4	S2	SSC
California black rail *Laterallus jamaicensis coturniculus*	ABNME03041	None	Threatened	G3T1	S2	FP
California red-legged frog *Rana draytonii*	AAABH01022	Threatened	None	G2G3	S2S3	SSC
Central Valley Drainage Hardhead/Squawfish Stream *Central Valley Drainage Hardhead/Squawfish Stream*	CARA2443CA	None	None	GNR	SNR	
chaparral sedge *Carex xerophila*	PMCYP03M60	None	None	G2	S2	1B.2
coast horned lizard *Phrynosoma blainvillii*	ARACF12100	None	None	G4	S4	SSC
Cosumnes stripetail *Cosumnoperla hypocrena*	IIPLE23020	None	None	G2	S2	
Crotch's bumble bee *Bombus crotchii*	IIHYM24480	None	Candidate Endangered	G2	S2	
El Dorado bedstraw *Galium californicum ssp. sierrae*	PDRUB0N0E7	Endangered	Rare	G5T1	S1	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
El Dorado County mule ears *Wyethia reticulata*	PDAST9X0D0	None	None	G2	S2	1B.2
ferruginous hawk *Buteo regalis*	ABNKC19120	None	None	G4	S3S4	WL
Fisher *Pekania pennanti*	AMAJF01020	None	None	G5	S2S3	SSC
foothill yellow-legged frog - south Sierra DPS *Rana boylii pop. 5*	AAABH01055	Endangered	Endangered	G3T2	S2	
giant gartersnake *Thamnophis gigas*	ARADB36150	Threatened	Threatened	G2	S2	
golden eagle *Aquila chrysaetos*	ABNKC22010	None	None	G5	S3	FP
grasshopper sparrow *Ammodramus savannarum*	ABPBXA0020	None	None	G5	S3	SSC
great blue heron *Ardea herodias*	ABNGA04010	None	None	G5	S4	
great egret *Ardea alba*	ABNGA04040	None	None	G5	S4	
Jepson's onion *Allium jepsonii*	PMLIL022V0	None	None	G2	S2	1B.2
Layne's ragwort *Packera layneae*	PDAST8H1V0	Threatened	Rare	G2	S2	1B.2
Nissenan manzanita *Arctostaphylos nissenana*	PDERI040V0	None	None	G1	S1	1B.2
North American porcupine *Erethizon dorsatum*	AMAFJ01010	None	None	G5	S3	
northwestern pond turtle *Actinemys marmorata*	ARAAD02031	Proposed Threatened	None	G2	SNR	SSC
oval-leaved viburnum *Viburnum ellipticum*	PDCPR07080	None	None	G4G5	S3	2B.3
pallid bat *Antrozous pallidus*	AMACC10010	None	None	G4	S3	SSC
Parry's horkelia *Horkelia parryi*	PDROS0W0C0	None	None	G2	S2	1B.2
Pine Hill ceanothus *Ceanothus roderickii*	PDRHA04190	Endangered	Rare	G1	S1	1B.1
Pine Hill flannelbush *Fremontodendron decumbens*	PDSTE03030	Endangered	Rare	G1	S1	1B.2
Red Hills soaproot *Chlorogalum grandiflorum*	PMLIL0G020	None	None	G3	S3	4.2
Ricksecker's water scavenger beetle *Hydrochara rickseckeri*	IICOL5V010	None	None	G2?	S2?	

Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Sanford's arrowhead *Sagittaria sanfordii*	PMALI040Q0	None	None	G3	S3	1B.2
Sierra arching sedge *Carex cyrtostachya*	PMCYP03M00	None	None	G2	S2	1B.2
silver-haired bat *Lasionycteris noctivagans*	AMACC02010	None	None	G4	S3S4	
spicate calycadenia *Calycadenia spicata*	PDAST1P090	None	None	G3?	S3	1B.3
Stebbins' morning-glory *Calystegia stebbinsii*	PDCON040H0	Endangered	Endangered	G1	S1	1B.1
steelhead - Central Valley DPS *Oncorhynchus mykiss irideus pop. 11*	AFCHA0209K	Threatened	None	G5T2Q	S2	SSC
Swainson's hawk *Buteo swainsoni*	ABNKC19070	None	Threatened	G5	S4	
tricolored blackbird *Agelaius tricolor*	ABPBXB0020	None	Threatened	G3	S2	SSC
Tuolumne button-celery *Eryngium pinnatisectum*	PDAPI0Z0P0	None	None	G2	S2	1B.2
valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	IICOL48011	Threatened	None	G3T3	S3	
Van Zuuk's morning-glory *Calystegia vanzuukiae*	PDCON040Q0	None	None	G2	S2	1B.3
vernal pool fairy shrimp *Branchinecta lynchi*	ICBRA03030	Threatened	None	G3	S3	
Wawona riffle beetle *Atractelmis wawona*	IICOL58010	None	None	G3	S1S2	
western bumble bee *Bombus occidentalis*	IIHYM24252	None	Candidate Endangered	G3	S1	
western spadefoot *Spea hammondii*	AAABF02020	Proposed Threatened	None	G2G3	S3S4	SSC
white-tailed kite *Elanus leucurus*	ABNKC06010	None	None	G5	S3S4	FP
Yuma myotis *Myotis yumanensis*	AMACC01020	None	None	G5	S4	

Record Count: 56

CALIFORNIA NATIVE PLANT SOCIETY

CNPS Rare Plant Inventory

Search Results

17 matches found. Click on scientific name for details

Search Criteria: , CRPR is one of [1A:1B:2A:2B] , Quad is one of [3812161:3812068:3812067:3812077:3812078:3812171:3812151:3812058:3812057]

▲ COMMON NAME	SCIENTIFIC NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED	PHOTO
big-scale balsamroot	*Balsamorhiza macrolepis*	Asteraceae	perennial herb	Mar-Jun	None	None	G2	S2	1B.2	Yes	1974-01-01	 ©1998 Dean Wm. Taylor
chaparral sedge	*Carex xerophila*	Cyperaceae	perennial herb	Mar-Jun	None	None	G2	S2	1B.2	Yes	2016-06-06	 © 2023 Steven Perry
El Dorado bedstraw	*Galium californicum* ssp. *sierrae*	Rubiaceae	perennial herb	May-Jun	FE	CR	G5T1	S1	1B.2	Yes	1974-01-01	 © 2019 John Doyen
El Dorado County mule ears	*Wyethia reticulata*	Asteraceae	perennial herb	Apr-Aug	None	None	G2	S2	1B.2	Yes	1974-01-01	 Steven Perry
Jepson's onion	*Allium jepsonii*	Alliaceae	perennial bulbiferous herb	Apr-Aug	None	None	G2	S2	1B.2	Yes	1994-01-01	 © 2019 Steven Perry
Layne's ragwort	*Packera layneae*	Asteraceae	perennial herb	Apr-Aug	FT	CR	G2	S2	1B.2	Yes	1974-01-01	 Steve Tyron

Nissenan manzanita	*Arctostaphylos nissenana*	Ericaceae	perennial evergreen shrub	Feb-Mar	None	None	G1	S1	1B.2	Yes	1974-01-01	 David Graber
oval-leaved viburnum	*Viburnum ellipticum*	Viburnaceae	perennial deciduous shrub	May-Jun	None	None	G4G5	S3	2B.3		1974-01-01	 © 2006 Tom Engstrom
Parry's horkelia	*Horkelia parryi*	Rosaceae	perennial herb	Apr-Sep	None	None	G2	S2	1B.2	Yes	1974-01-01	 © 2009 Barry Breckling
Pine Hill ceanothus	*Ceanothus roderickii*	Rhamnaceae	perennial evergreen shrub	Apr-Jun	FE	CR	G1	S1	1B.1	Yes	1974-01-01	 © 2018 Steven Perry
Pine Hill flannelbush	*Fremontodendron decumbens*	Malvaceae	perennial evergreen shrub	Apr-Jul	FE	CR	G1	S1	1B.2	Yes	1974-01-01	 Steven Perry
Sanford's arrowhead	*Sagittaria sanfordii*	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	None	None	G3	S3	1B.2	Yes	1984-01-01	 ©2013 Debra L. Cook
Sierra arching sedge	*Carex cyrtostachya*	Cyperaceae	perennial herb	May-Aug	None	None	G2	S2	1B.2	Yes	2015-08-18	No Photo Available
spicate calycadenia	*Calycadenia spicata*	Asteraceae	annual herb	May-Sep	None	None	G3?	S3	1B.3		2023-04-05	 © 2023 Christopher Bronny
Stebbins' morning-glory	*Calystegia stebbinsii*	Convolvulaceae	perennial rhizomatous herb	Apr-Jul	FE	CE	G1	S1	1B.1	Yes	1980-01-01	 Steven Perry

Tuolumne button-celery	*Eryngium pinnatisectum*	Apiaceae	annual/perennial herb	May-Aug	None	None	G2	S2	1B.2	Yes	1974-01-01	 © 2007 Robert E. Preston, Ph.D.
Van Zuuk's morning-glory	*Calystegia vanzuukiae*	Convolvulaceae	perennial rhizomatous herb	May-Aug	None	None	G2	S2	1B.3	Yes	2014-07-16	No Photo Available

Showing 1 to 17 of 17 entries

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United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for El Dorado Area, California

May 29, 2025

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

Map Scale: 1:7,230 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 350 700 1400 2100

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: El Dorado Area, California
Survey Area Data: Version 16, Aug 30, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 3, 2022—Oct 6, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AnB	Argonaut clay loam, 3 to 9 percent slopes	4.0	4.3%
AxD	Auburn very rocky silt loam, 2 to 30 percent slopes	1.9	2.1%
PrD	Placer diggings	1.1	1.2%
ReB	Rescue sandy loam, 2 to 9 percent slopes	12.1	13.2%
RfC	Rescue very stony sandy loam, 3 to 15 percent slopes	71.0	77.8%
RgE2	Rescue extremely stony sandy loam, 3 to 50 percent slopes, eroded	1.2	1.3%
Totals for Area of Interest		**91.3**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it

was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

El Dorado Area, California

AnB—Argonaut clay loam, 3 to 9 percent slopes

Map Unit Setting

National map unit symbol: hhyf
Elevation: 120 to 2,500 feet
Mean annual precipitation: 20 to 50 inches
Mean annual air temperature: 55 to 63 degrees F
Frost-free period: 220 to 270 days
Farmland classification: Not prime farmland

Map Unit Composition

Argonaut and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Argonaut

Setting

Landform: Ridges
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Residuum weathered from andesite and/or residuum weathered from metasedimentary rock

Typical profile

H1 - 0 to 11 inches: clay loam
H2 - 11 to 40 inches: clay
H3 - 40 to 44 inches: weathered bedrock

Properties and qualities

Slope: 3 to 9 percent
Depth to restrictive feature: 40 to 44 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.8 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: D
Ecological site: F018XI207CA - Deep Volcanic Plateaus and Hills
Hydric soil rating: No

Minor Components

Rescue

Percent of map unit: 14 percent

Landform: Ridges
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope, interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Rescue, clayey variant
Percent of map unit: 1 percent
Landform: Drainageways
Hydric soil rating: Yes

AxD—Auburn very rocky silt loam, 2 to 30 percent slopes

Map Unit Setting
National map unit symbol: hhyr
Elevation: 120 to 3,000 feet
Mean annual precipitation: 20 to 40 inches
Mean annual air temperature: 55 to 63 degrees F
Frost-free period: 175 to 275 days
Farmland classification: Not prime farmland

Map Unit Composition
Auburn and similar soils: 75 percent
Rock outcrop: 15 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Auburn

Setting
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Residuum weathered from basic igneous rock and/or basic residuum weathered from metamorphic rock

Typical profile
H1 - 0 to 14 inches: silt loam
H2 - 14 to 18 inches: unweathered bedrock

Properties and qualities
Slope: 2 to 30 percent
Depth to restrictive feature: 14 to 18 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches

Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 2.3 inches)

Interpretive groups

Land capability classification (irrigated): 6e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: D
Ecological site: F018XI200CA - Low Elevation Foothills
Hydric soil rating: No

Description of Rock Outcrop

Setting

Parent material: Metamorphic rock

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydric soil rating: No

Minor Components

Argonaut

Percent of map unit: 3 percent
Landform: Ridges
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Boomer

Percent of map unit: 3 percent
Landform: Mountain slopes, hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank, side slope
Down-slope shape: Concave
Across-slope shape: Convex
Hydric soil rating: No

Sobrante

Percent of map unit: 2 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Convex
Hydric soil rating: No

Unnamed

Percent of map unit: 2 percent
Hydric soil rating: No

PrD—Placer diggings

Map Unit Composition

Placer diggings: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Placer Diggings

Setting

Parent material: Alluvium derived from mixed sources

Typical profile

H1 - 0 to 60 inches: fine sandy loam, cobbles

Properties and qualities

Slope: 2 to 15 percent
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Frequency of flooding: Occasional
Available water supply, 0 to 60 inches: Very low (about 1.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Ecological site: R018XD084CA - PLACER DIGGINGS
Hydric soil rating: No

Minor Components

Unnamed

Percent of map unit: 10 percent
Landform: Channels
Hydric soil rating: Yes

ReB—Rescue sandy loam, 2 to 9 percent slopes

Map Unit Setting

National map unit symbol: hj0x
Elevation: 800 to 2,000 feet
Mean annual precipitation: 30 inches
Mean annual air temperature: 59 degrees F
Frost-free period: 200 to 270 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Rescue and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Rescue

Setting

Landform: Ridges
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope, interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from gabbrodiorite

Typical profile

H1 - 0 to 14 inches: sandy loam
H2 - 14 to 26 inches: sandy clay loam
H3 - 26 to 34 inches: sandy loam
H4 - 34 to 55 inches: coarse sandy loam
H5 - 55 to 66 inches: loamy coarse sand
H6 - 66 to 70 inches: weathered bedrock

Properties and qualities

Slope: 2 to 9 percent
Depth to restrictive feature: 66 to 70 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.2 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: F018XI202CA - Deep Thermic Steep Hillslopes
Hydric soil rating: No

Minor Components

Argonaut

Percent of map unit: 8 percent
Landform: Ridges
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Rescue

Percent of map unit: 7 percent
Hydric soil rating: No

RfC—Rescue very stony sandy loam, 3 to 15 percent slopes

Map Unit Setting

National map unit symbol: hj10
Elevation: 800 to 2,000 feet
Mean annual precipitation: 30 inches
Mean annual air temperature: 59 degrees F
Frost-free period: 200 to 270 days
Farmland classification: Not prime farmland

Map Unit Composition

Rescue and similar soils: 85 percent
Argonaut and similar soils: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Rescue

Setting

Landform: Ridges
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope, interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from gabbrodiorite

Typical profile

H1 - 0 to 10 inches: very stony sandy loam
H2 - 10 to 34 inches: sandy clay loam
H3 - 34 to 55 inches: coarse sandy loam
H4 - 55 to 59 inches: weathered bedrock

Properties and qualities

Slope: 3 to 15 percent
Depth to restrictive feature: 55 to 59 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.1 inches)

Interpretive groups

Land capability classification (irrigated): 6e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Ecological site: F018XI202CA - Deep Thermic Steep Hillslopes
Hydric soil rating: No

Description of Argonaut

Setting

Landform: Ridges
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Residuum weathered from andesite and/or residuum weathered from metasedimentary rock

Typical profile

H1 - 0 to 10 inches: gravelly loam
H2 - 10 to 30 inches: clay
H3 - 30 to 34 inches: weathered bedrock

Properties and qualities

Slope: 3 to 15 percent
Depth to restrictive feature: 30 to 34 inches to paralithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: D
Ecological site: F018XI202CA - Deep Thermic Steep Hillslopes
Hydric soil rating: No

RgE2—Rescue extremely stony sandy loam, 3 to 50 percent slopes, eroded

Map Unit Setting

National map unit symbol: hj13
Elevation: 800 to 2,000 feet
Mean annual precipitation: 30 inches
Mean annual air temperature: 59 degrees F
Frost-free period: 200 to 270 days
Farmland classification: Not prime farmland

Map Unit Composition

Rescue and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Rescue

Setting

Landform: Ridges
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope, interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from gabbrodiorite

Typical profile

H1 - 0 to 5 inches: stony sandy loam
H2 - 5 to 29 inches: sandy clay loam
H3 - 29 to 45 inches: coarse sandy loam
H4 - 45 to 49 inches: weathered bedrock

Properties and qualities

Slope: 3 to 50 percent
Depth to restrictive feature: 45 to 49 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: C
Ecological site: R018XI106CA - Steep Thermic Hillslopes and Canyon Walls
Hydric soil rating: No

Minor Components

Metamorphic rock land

Percent of map unit: 10 percent
Landform: Mountain slopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Concave
Hydric soil rating: No

Serpentine rock land

Percent of map unit: 5 percent
Hydric soil rating: No

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APPENDIX E. USFWS BIOLOGICAL OPINION

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825-1846

In Reply Refer To:
81420-2008-F-1127-3

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Mr. Jason Meigs
California Department of Transportation
District 3
Office of Environmental Management
2389 Gateway Oaks Drive (MS-15)
Sacramento, California 95833

Subject: Biological Opinion on the Proposed U.S. 50/Ponderosa/South Shingle Road Interchange Project, El Dorado County, California

Dear Mr Meigs:

This is in response to your letter dated June 1, 2009, requesting formal consultation with the U.S. Fish and Wildlife Service (Service) for El Dorado County Department of Transportation's proposed project to improve the operation of U.S. Highway 50/Ponderosa/South Shingle Road Interchange in El Dorado County, California. In accordance with section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*)(Act), this document represents the Service's biological opinion of the effects of the proposed action on the threatened Layne's butterweed (*Packera layneae*).

The Service is aware of a planning effort being conducted by El Dorado County Department of Transportation (EDCDOT) for the extension of Wild Chaparral Drive north of Highway 50. The currently proposed interchange project will be constructed in a manner that either allows for the extension of Wild Chaparral Drive, or will accommodate the increased traffic flow resulting from Wild Chaparral Drive extending to Palmer Drive. The future road will be constructed on lands that are part of a preserve system established for the conservation of five federally listed plant species. The property that will be affected by the extension of Wild Chaparral Drive was purchased, in part, using funds from both the Central Valley Project Improvement Act, administered by Bureau of Reclamation (Reclamation) and the Service, and the Wildlife Conservation Board (WCB) funds, administered by the state. Since these funds were used to acquire property that was intended for the conservation of listed plants, it is our understanding that authorization to construct a road through this portion of the preserve would be required from both Reclamation and the WCB. Additionally, since the Wild Chaparral Drive extension would occur on land under the control of the Bureau of Land Management (BLM), authorization would

also need to be obtained from BLM. Given that additional Federal approvals would be required prior to construction of the Wild Chaparral Drive extension, and such Federal actions would require future consultation under section 7 of the Act, it is appropriate that this consultation be limited to the Hwy 50/Ponderosa/South Shingle Road and not include consideration of the effects of the proposed Wild Chaparral Drive extension on listed species.

The Service is also aware of the EDCDOT's recent acquisition of approximately 20 acres of property that contains federally listed plants, in an effort to offset the effects of future road construction activities in the Cameron Park area. The property, identified as the Carriage Hill Property, is located immediately adjacent to the currently protected Cameron Park unit of the Pine Hill Preserve, and is identified in the Service's 2002 *Recovery Plan for Gabbro Soil Plants of the Central Sierra Nevada Foothills* (Recovery Plan) as necessary for the conservation of gabbro plant species. Because the status of the Carriage Hill Property, for conservation purposes, is currently unclear, it will not be considered in the context of this consultation.

The Hwy 50/Ponderosa/Shingle Springs project area is located within the range of the California red-legged frog (*Rana draytonii*) (frog) and aquatic features within dispersal distance of the proposed project provide suitable breeding habitat for the frog. However, dense residential/commercial development and Highway 50 provide significant barriers to dispersing frogs and therefore it is unlikely that frogs could disperse into the project area from nearby ponds, with the exception a single pond immediately south of the project area. Protocol level surveys of this pond, conducted in accordance with the Service's 2005, *Revised Guidance on Site Assessment and Field Surveys for the California Red-legged Frog*, resulted in the detection of bullfrog (*Lithobates catesbeiana*), but no California red-legged frog. Due to the migration barriers and lack of frog detections, it is extremely unlikely that frogs would utilize the project area and be affected by the project, therefore the Service concurs with your determination that the proposed project is not likely to adversely affect California red-legged frog.

This biological opinion is based on: (1) the May 2009, *Biological Assessment for Impacts to Layne's Butterweed and California red-legged Frog, U.S. 50/Ponderosa/South Shingle Road Interchange Project, El Dorado County, California*; (2) a May 01, 2008 and December 04, 2008, site visit conducted by the Service; (3) miscellaneous electronic communications concerning the proposed action between the Service and the California Department of Transportation (Caltrans); and (4) other information available to the Service.

Consultation History

March 07, 2008	The Service received a California red-legged frog site assessment from Caltrans with a request for recommendations on whether protocol level surveys would be necessary.
April 01, 2008	The Service issued Caltrans a request for California red-legged frog surveys to be conducted.

May 01, 2008	The Service conducted a site visit with representatives of Caltrans and EDCDOT to discuss listed species concerns.
December 04, 2008	The Service conducted a site visit with representatives of Caltrans and EDCDOT to discuss project effects to Layne's butterweed and methods to reduce the effects.
December 18, 2008	The Service received a conservation plan for Layne's butterweed.
January 12, 2009	Electronic communications exchanged between the Service and Caltrans addressing the conservation measures for Layne's butterweed.
June 03, 2009	The Service received the Biological Assessment and request for formal consultation.
July 07, 2009	Electronic communication from the Service to Caltrans outlining the Service's concerns with the conservation measures and requesting clarification of the project's effects.
August 04, 2009	The Service issued Caltrans a request for additional information addressing the indirect effects of the project and the proposed conservation measures.
August 31, 2009	Electronic communication from the Service to Caltrans providing clarification on the Service's view of the potential effects of the project.
September 02, 2009	Telephone conversation representatives of Caltrans and EDCDOT discussing the additional information request and providing clarification about the conservation measures.
September 28, 2009	The Service received a response from Caltrans to the Service's request for additional information.
February 08, 2010	Electronic communication from the Service to Caltrans requesting minor clarification of proposed conservation measures.
February 09, 2010	Electronic communication from the Caltrans to the Service providing clarification of proposed conservation measure for Layne's butterweed.

BIOLOGICAL OPINION

Project Description

The proposed project is located along the U.S. Highway 50/Ponderosa/South Shingle Road interchange in Shingle Springs, El Dorado County, California. The County of El Dorado is proposing to improve the operation of the existing interchange by widening on and off ramps, and increasing the capacity in both directions to include a total of five travel lanes. Specifically, EDCDOT is proposing construction that will widen the existing bridge from three to five lanes; widening and realigning North Shingle and Durock Roads; the possible realignment/ reconstruction of portions of Wild Chaparral Drive; adding turn pockets; providing acceleration/deceleration lanes; high occupancy vehicle bypass lanes and ramp metering; and modifications to the loop on and off ramps in both east and west directions. While the exact details and project design have not yet been finalized, all project alternatives will have the same effect on listed species.

Conservation Measures

EDCDOT has proposed the following measures to reduce the effects of the project on Layne's butterweed:

1. No less than 60 days prior to start of ground-disturbing project activities, EDCDOT will contribute $880.00 to the BLM for the enhancement of habitat to benefit Layne's Butterweed.

2. Prior to ground disturbing activities, the on-site Layne's butterweed plants will be transplanted to the property recently acquired by El Dorado County, or to suitable habitat on property managed by the BLM within the Cameron Park Unit of the Pine Hill Preserve. Transplanting will occur in accordance with a Layne's Butterweed Transplant and Monitoring plan that will be prepared by EDCDOT and submitted for review and approval by the Service no less than 60 days prior to start of ground-disturbing project activities. The plan will include the following items:
    a. Oversight of the transplanting by a qualified botanist.
    b. Details on site preparation.
    c. Transplant schedule and procedure.
    d. Maintenance of the transplant site (including weed control and vegetation/trash removal.
    e. Monitoring criteria (up to five years of monitoring) and remedial actions.
    f. Success criteria.
    g. Monitoring reporting requirements.

Analytical Framework for the Jeopardy Analyses

In accordance with policy and regulation, the jeopardy analyses in this biological opinion relies on four components: (1) the *Status of the Species*, which evaluates the species' range-wide

condition, the factors responsible for that condition, and its survival and recovery needs; (2) the *Environmental Baseline*, which evaluates the condition of the species in the action area, the factors responsible for that condition, and the relationship of the action area to the survival and recovery of the species; (3) the *Effects of the Action*, which determines the direct and indirect impacts of the proposed Federal action and the effects of any interrelated or interdependent activities on the species; and (4) *Cumulative Effects*, which evaluates the effects of future, non-Federal activities in the action area on the species.

In accordance with policy and regulation, the jeopardy determination is made by evaluating the effects of the proposed Federal action in the context of the species' current status, taking into account any cumulative effects, to determine if implementation of the proposed action is likely to cause an appreciable reduction in the likelihood of both the survival and recovery of the species in the wild.

The jeopardy analysis in this biological opinion places an emphasis on consideration of the range-wide survival and recovery needs of the Layne's butterweed; and the role of the action area in the survival and recovery of Layne's butterweed as the context for evaluating the significance of the effects of the proposed Federal action, taken together with cumulative effects, for purposes of making the jeopardy determination.

Action Area

The action area is considered the construction limits of the project including all access and staging areas. The action area extends from the existing interchange, 450 feet west and 600 feet east, and extends just north of the Ponderosa and North Shingle Road junction south to the intersection of South Shingle Road and Sunset Lane.

Status of the Species

On October 18, 1996, Layne's butterweed was federally listed as threatened (Service 1996). Layne's Butterweed is a perennial herb of the aster family (Asteraceae) that sprouts from a rootstock. Its mostly basal lance shaped leaves are 8 to 24 centimeters (cm) (3 to 10 inches [in.]) long. The several flower heads are 4 to 6 cm (2 to 3 in.) wide. Each flower head has 5 to 8 orange yellow ray flowers and numerous yellow disk flowers. Layne's Butterweed flowers from April to August (CNPS 2009). Population size records vary from 10 to over 1,000 individuals (CNDDB 2009).

Layne's Butterweed grows in open rocky areas within chaparral plant communities, primarily on gabbro soil formations and occasionally on serpentine soils. Most known sites are scattered within a 40,000 acre area in western El Dorado County that includes the Pine Hill formation and adjacent serpentine. A few other colonies occur in the Eldorado National Forest in El Dorado County, in the Bureau of Land Management Red Hills Management Area in Tuolumne County, and on Bureau of Land Management managed land in Yuba County (Service 2002). Observations suggest that Layne's Butterweed is an early succession species that occupies temporary openings on gabbro or serpentine soils and is eliminated as vegetation grows up

around it (Baad and Hanna 1987). Like many species in the sunflower family, Layne's butterweed is adapted to disturbance, but the role of fire on the species' viability is unknown (Service 2002). In at least one case, Layne's butterweed has been found on a property which burned several years earlier. Details of the reproductive biology and demography of this species are not available.

Marsh (2000) studied the genetic structure of Layne's Butterweed at four populations representing the species' range and conducted a preliminary investigation of the breeding system of Layne's Butterweed. Results suggested that although most of the genetic variation was found within the populations, almost one-third of the genetic variation was found between populations (Marsh 2000). Additionally, in a pollination study, Marsh (2000) found that open pollinated flower heads had an 8-fold increase in potentially viable seeds over flower heads where the pollinators had been excluded, indicating that the predominant breeding system for Layne's Butterweed is outcrossing (Marsh 2000).

Habitat loss, habitat fragmentation, alteration of natural fire regime, and suppression of disturbance (all mainly due to urbanization) were the major threats leading to the listing of Layne's butterweed. The decline of Layne's butterweed is due to residential and commercial development, road maintenance, changes in fire frequency, off-road vehicle use, competition from invasive alien species, horse paddocking, mining, other human disturbances, and inadequate regulatory mechanisms. Habitats adjacent to developed lands may be negatively affected by "edge effects" emanating from neighboring properties, such as drift of household herbicides and insecticides, fire break maintenance, and the proliferation of unmanaged trail networks. Research also indicates that habitat fragmentation can result in the loss of ecosystem functions, such as pollination and seed dispersal, and reduced biodiversity, including the local disappearance of some plant species (Damschen *et al.* 2006).

In 2002, the Service published the *Recovery Plan for Gabbro Soil Plants of the Central Sierra Nevada Foothills* (Recovery Plan). The Service's 2002 Recovery Plan identifies a recommended Pine Hill preserve system, designed for the protection of the gabbro soil plant species, covering approximately 5,001 acres in El Dorado County. The Recovery Plan outlines the creation of the Pine Hill Preserve, consisting of a widely-distributed preserve system which includes the Pine Hill, Salmon Falls/Martel Creek, Penny Lane, and Cameron Park Units as well as a 60-acre El Dorado bedstraw specialty preserve.

The Recovery Plan identifies a need to secure and protect habitat as well as the maintenance of metapopulation dynamics. In order to achieve these goals, the Recovery Plan specifically recommends the protection of: (1) at least one very large occurrence of Layne's Butterweed greater than 200 acres; seven medium occurrences each between 10 and 100 acres; and 24 small occurrences each smaller than 10 acres, throughout the Pine Hill formation; (2) at least one large, two medium and five small occurrences within western Eldorado County off of the Pine Hill formation; (3) at least two medium and four small occurrences maintained within Tuolumne County; and (4) at least two small occurrences maintained in Yuba County.

Cumulative Effects

Cumulative effects include the effects of future State, Tribal, local, or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions that are unrelated to the proposed U.S. 50/Ponderosa/South Shingle Road Interchange Project are not considered in this section; they require separate consultation pursuant to Section 7 of the Act. The Service is not aware of specific projects that might Layne's butterweed in the action area that are currently under review by State, county, and local authorities.

The global average temperature has risen by approximately 0.6 degrees Celsius during the 20th Century (Intergovernmental Panel on Climate Change 2001, 2007; Adger et al 2007). There is an international scientific consensus that most of the warming observed has been caused by human activities (Intergovernmental Panel on Climate Change 2001, 2007; Adger et al. 2007), and that it is "very likely" that it is largely due to increasing concentrations of greenhouse gases (carbon dioxide, methane, nitrous oxide, and others) in the global atmosphere from burning fossil fuels and other human activities (Cayan et al. 2005, Adger et al. 2007). Eleven of the twelve years between 1995 and 2006 rank among the twelve warmest years since global temperatures began in 1850 (Adger et al. 2007). The warming trend over the last fifty years is nearly twice that for the last 100 years (Adger et al. 2007). Looking forward, under a high emissions scenario, the International Panel on Climate Change estimates that global temperatures will rise another four degrees Celsius by the end of this Century; even under a low emissions growth scenario, the International Panel on Climate Change estimates that the global temperature will go up another 1.8 degrees Celsius (Intergovernmental Panel on Climate Change 2001). The increase in global average temperatures affects certain areas more than others. The western United States, in general, is experiencing more warming than the rest of the Nation, with the 11 western states averaging 1.7 degrees Fahrenheit warmer temperatures than this region's average over the 20th Century (Saunders et al. 2008). California, in particular, will suffer significant consequences as a result of global warming (California Climate Action Team 2006). In California, reduced snowpack will cause more winter flooding and summer drought, as well as higher temperatures in lakes and coastal areas. The incidence of wildfires in the Golden State also will increase and the amount of increase is highly dependent upon the extent of global warming. No less certain than the fact of global warming itself is the fact that global warming, unchecked, will harm biodiversity generally and cause the extinction of large numbers of species. If the global mean temperatures exceed a warming of two to three degrees centigrade above pre-industrial levels, twenty to thirty percent of plant and animal species will face an increasingly high risk of extinction (Intergovernmental Panel on Climate Change 2001, 2007). The mechanisms by which global warming may push already imperiled species closer or over the edge of extinction are multiple. Global warming increases the frequency of extreme weather events, such as heat waves, droughts, and storms (Intergovernmental Panel on Climate Change 2001, 2007; California Climate Action Team 2006; Lenihan et al. 2003). Extreme events, in turn, may cause mass mortality of individuals and significantly contribute to determining which species will remain or occur in natural habitats. As the global climate warms, temperate terrestrial habitats are moving northward and upward, but in the future, range contractions are more likely than simple northward or upslope shifts. Ongoing global climate change (Kerr 2007; Inkley et al.

2004; Adger et al. 2007; Kanter 2007) likely poses a threat to Layne's butterweed. Since climate change threatens to disrupt annual weather patterns, it may result in a loss of habitat and/or pollinators. Where populations are isolated, a changing climate may result in local extinction, with range shifts precluded by lack of habitat.

Conclusion

After reviewing the current status of the species, the environmental baseline for the action area, the effects of the proposed action and the cumulative effects, it is the Service's biological opinion that the proposed actions are not likely to jeopardize the continued existence of Layne's butterweed. We base our determination on the following:

1) Compared to the total area known to be occupied by Layne's butterweed, the loss of 0.01 acres is not significant.
2) The location of the Layne's butterweed occurrence is in an area determined not essential for the recovery of the species.
3) The project is located in the central portion of the species' range and the loss of this occurrence will not alter the species' distribution.
4) Conservation measures being implemented by EDCDOT.

Sections 7(b)(4) and 7(o)(2) of the Act generally do not apply to listed plant species. However, limited protection of listed plants from take is provided to the extent that the Act prohibits the removal or reducing to possession of listed plants from areas under Federal jurisdiction; the malicious damage or destruction of any such species on such areas; and the removal, destruction or damage of such species in violation of state laws, including state criminal trespass law (16 USC 1538(a)(2)(B).

Section 9 of the Act prohibits removing or reducing to possession, or maliciously damaging or destroying listed plant species from areas under Federal jurisdiction. The Act and its implementing regulations do not provide for exemption from these prohibitions; however, it is the Service's expectation that the applicant will refrain from removing or collecting and will avoid malicious damage to, or destruction of, listed plants.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities that can be implemented to further the purposes of the Act, such as preservation of endangered species habitat, implementation of recovery actions, or development of information and databases.

1) Caltrans should continue to work with EDCDOT to design projects so as to avoid or reduce effects to plants in western El Dorado County.

2) Caltrans should continue to provide Environmental Enhancement and Mitigation Program

funds and provide other support for land acquisition and management of the Pine Hill Preserve.

REINITIATION—CLOSING STATEMENT

This concludes formal consultation on the U.S. 50/Ponderosa/South Shingle Road Interchange Project. As provided in 50 CFR §402.16, reinitiation of formal consultation is required and shall be requested by the Federal agency or by the Service, where discretionary Federal involvement or control over the action has been retained or is authorized by law and: (a) if the amount or extent of taking specified in the incidental take statement is exceeded; (b) if new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (c) if the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion; or (d) if a new species is listed or critical habitat designated that may be affected by the identified action.

Please contact Jeremiah Karuzas, staff biologist, or Kim Squires, acting Forest and Foothills Branch Chief, at (916) 414-6600, if you have any questions regarding this biological opinion on the proposed U.S. 50/Ponderosa/South Shingle Road Interchange Project.

Sincerely,

for Susan K. Moore
Field Supervisor

cc:
Ms. Jennifer Maxwell, Project Manager, El Dorado County Department of Transportation, El Dorado Hills, California
Mr. Todd Gardiner, California Department of Fish and Game, Rancho Cordova, California

LITERATURE CITED

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APPENDIX F. AVOIDANCE, MINIMIZATION, AND/OR MITIGATION SUMMARY

In order to be sure that all of the environmental measures identified in this document are executed at the appropriate times, the following mitigation program (as articulated on the proposed Environmental Commitments Record [ECR] which follows) would be implemented. During project design, avoidance, minimization, and /or mitigation measures will be incorporated into the project's final plans, specifications, and cost estimates, as appropriate. All permits will be obtained prior to implementation of the project. During construction, environmental and construction/engineering staff will ensure that the commitments contained in this ECR are fulfilled. Following construction and appropriate phases of project delivery, long-term mitigation maintenance and monitoring will take place, as applicable. As the following ECR is a draft, some fields have not been completed, and will be filled out as each of the measures is implemented. Note: Some measures may apply to more than one resource area. Duplicative or redundant measures have not been included in this ECR.

Task and Brief Description	Timing	Responsible Party	Completed	Initials	Notes (optional)
Community Character and Cohesion					
Measure CCC-1: Prior to the start of construction, to provide a point of contact with residents, businesses, and public safety agencies that will be affected by construction, the County of El Dorado will establish a public outreach/community liaison program which would utilize electronic and print media, changeable message signs, and other means of public outreach as necessary. These efforts will be paired with the Transportation Management Plan which would reduce temporary construction impacts to users of the transportation facility.	Prior to construction	County	☐	_____	
Measure CCC-2: Wherever feasible, temporary signage will be installed notifying the public of closures or detours and the expected duration of the closure.	During construction	Resident Engineer	☐	_____	
Measure CCC-3: Temporary disruptions to access for businesses in the improvement area will be minimized by coordinating construction to provide alternative access points and by ensuring that all businesses have at least one open driveway during construction.	During construction	Resident Engineer	☐	_____	
Measure CCC-4: Pedestrian and bicycle access will be maintained, where facilities are currently present, on at least one side of the roadway through the project area during construction.	During construction	Resident Engineer	☐	_____	
Relocation					
Measure RLC-1: Property owners will be compensated in accordance with fair market values based on appraisals. Business owners will be compensated based on an assessment of the values of the business and any loss of good will.	Prior to construction	County	☐	_____	
Utilities/Emergency Services					
Measure UTL/ES-1: To avoid any minimize interruptions of service to utility customers, a series of coordination letters will be sent to all impacted utility companies to identify utilities within the proposed project. Letters will indicate where utility relocations are to be performed and the required time to relocate them. Design plans will be sent to involved utility owners during the project development phase. Meetings will be arranged with utility companies as necessary to discuss impacts and relocation plans.	Prior to construction (prepare) / During construction (implement)	County / Resident Engineer	☐	_____	

Task and Brief Description	Timing	Responsible Party	Completed	Initials	Notes (optional)
Measure UTL/ES-2: A Transportation Management Plan will be prepared. It will be ensured that there is appropriately designed access for emergency services onto all roads involved in the proposed project. The transportation coordination plan will be provided to emergency public services (including fire, police, and hospital facilities).	Prior to construction (prepare) / During construction (implement)	County / Resident Engineer	☐	_____	
Measure UTL/ES-3: Emergency public services, local law enforcement agencies, and local businesses will be notified of the proposed project and of any temporary lane closures one month before construction begins.	Prior to construction	County	☐	_____	
Traffic and Transportation/Pedestrian and Bicycle Facilities					
Measure TRAF-1: All existing non-motorized facilities will be maintained to ADA standards.	During construction	Resident Engineer	☐	_____	
Measure TRAF-2: Prior to the start of construction, the County will establish a public outreach/community liaison program to provide a point of contact with residents, businesses, and public safety agencies that will be affected by construction utilizing electronic and print media, changeable message signs and other means of public outreach as necessary.	Prior to construction (prepare) / During construction (implement)	County / Resident Engineer	☐	_____	
Measure TRAF-3: To minimize the temporary effects to travelers, pedestrians, and bicyclists, a Transportation Management Plan will be prepared. Such strategies might include public information campaigns, motorist information, incident management, and inclusion of night work for construction activities.	Prior to construction (prepare) / During construction (implement)	County / Resident Engineer	☐	_____	
Cultural					
Measure CR-1: If cultural materials are discovered during construction, all earth-moving activities within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.	During construction	Resident Engineer	☐	_____	

Task and Brief Description	Timing	Responsible Party	Completed	Initials	Notes (optional)
Measure CR-2: If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities will cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to Public Resources Code Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission who will then notify the Most Likely Descendent. At this time, the person who discovered the remains will contact Tina Fulton, District 10 Native American Heritage Coordinator, so that they may work with the Most Likely Descendent on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.	During construction	Resident Engineer	☐	_____	
Measure CR-3: The County will continue coordinating with the Shingle Springs Band of Miwok Indians (SSBMI) throughout the duration of the project to ensure that the SSBMI has an opportunity to provide a tribal monitor during construction, that protective fencing is installed along the construction footprint in areas believed to be adjacent to sensitive Native American resources, and that a monitoring plan is prepared that clearly delineates the appropriate procedures regarding monitoring and unanticipated discovery of buried resources during construction.	Prior to construction/ During Construction	County/ Resident Engineer	☐	_____	
Water Quality and Stormwater Runoff					
Measure SWR-1: For project areas exceeding one acre, NPDES guidelines necessitate the development of a SWPPP by the contractor prior to construction to establish project-specific permanent and temporary BMPs. During the design phase, a Water Pollution Control Plan would be prepared to determine the minimum control requirements to be included in the SWPPP. This project is subject to the requirements of General Construction Permit Order No. 2022-0057-DWQ, effective on September 1, 2023. A Notice of Intent or Notice of Construction will be submitted to the SWRCB along with the completed SWPPP.	Prior to construction	County	☐	_____	

Task and Brief Description	Timing	Responsible Party	Completed	Initials	Notes (optional)
Measure SWR-2: BMPs include any facilities and methods used to remove, reduce, or prevent storm water runoff pollutants from entering receiving waters. Erosion control methods, temporary and permanent BMPs, and improvement of drainage facilities along the roadway would minimize impacts from storm water runoff. The SWPPP and NPDES compliant measures would ensure no adverse impacts would occur to water quality associated with each of the build alternatives.	Prior to construction (prepare) / During construction (implement)	County / Resident Engineer	☐	_____	
Measure SWR-3: Temporary construction site BMPs will be deployed under a contractor prepared SWPPP. Temporary concrete washouts, stabilized construction entrances/exits, and fiber rolls and additional items will be identified during the project design phase.	Prior to construction (prepare) / During construction (implement)	County / Resident Engineer	☐	_____	
Hazardous Waste or Materials					
Measure HW-1: Exploratory excavations, soil sampling, and analytical testing is required for Parcel APN 070-270-029-000, 070-270-020-000, and APN 109-040-040-000 prior to ROW acquisition.	Prior to construction	County	☐	_____	
Measure HW-2: In the event that volatile organic compounds, hydrocarbons, or heavy metal levels exceed the statewide standard during testing, the contaminated soil will be properly handled and transported off site to a licensed Class I hazardous waste landfill. After excavation, and prior to off-site disposal, all soil will be managed appropriately on site per the Department of Toxic Substance Control protocol to reduce the risk of accidental release of hazardous materials.	Prior to construction (prepare) / During construction (implement)	County / Resident Engineer	☐	_____	
Measure HW-3: Removal of any yellow traffic striping within the project area will require that an appropriate Lead Compliance Plan be developed.	During construction	Resident Engineer	☐	_____	
Measure HW-4: An Aerially Deposited Lead (ADL) evaluation will be prepared for any work within unpaved highway/roadway shoulders and median in areas of planned construction excavations. An appropriate soil management plan will be developed for soil containing significant concentrations of ADL. If soils contain hazardous levels of ADL, the contaminated soil must be handled appropriately or disposed of at a Class 1 disposal facility.	Prior to construction (prepare) / During construction (implement)	County / Resident Engineer	☐	_____	

Task and Brief Description	Timing	Responsible Party	Completed	Initials	Notes (optional)
Measure HW-5: Willow soil sampling and analytical testing should be performed for the unpaved highway/roadway shoulders and median in areas of planned construction excavations to evaluate the potential presence of NOA at regulated concentrations.	Prior to construction	County	☐	_____	
Measure HW-6: Prior to construction, an Asbestos Dust Mitigation Plan will be obtained from the Air Quality Management Departments, and all measures from these plans will be implemented to ensure that impacts from Naturally Occurring Asbestos are not significant.	Prior to construction	County	☐	_____	
Measure HW-7: Any chemically treated wood must be treated as Treated Wood Waste (TWW) and disposed of as hazardous waste. For the TWW, the DTSC regulations §66261.9.5 provide alternative management standards for TWW. Caltrans 2024 SSP for TWW, SSP 14-11.14, is based on DTSCs Alternative Management Standards (AMS) regulations. This SSP directs the Contractor to follow the AMS including providing training to all personnel that may come in contact with TWW. This training must include, at a minimum, safe handling, sorting and segregating, storage, labeling (including date), and proper disposal methods.	During construction	Resident Engineer	☐	_____	
Measure HW-8: Undocumented subsurface structures including USTs, septic systems, and domestic/agricultural water wells encountered during construction excavation activities should be properly removed or abandoned in accordance with EDCEMD permitting requirements. Areas where apparent soil contamination (i.e. odor, staining, debris, etc.) is encountered during construction excavation/grading activities (if any) should be isolated, stockpiled separately, and disposed of where appropriate to an accepting landfill facility. Notification to the EDCEMD for regulatory oversight may be required if any significant areas of contamination are encountered.	During construction	Resident Engineer	☐	_____	
Measure HW-9: An ACM and LCP survey should be performed of the Shingle Springs overcrossing bridge structure prior to any planned renovation or demolition activities.	Prior to construction	County	☐	_____	

Task and Brief Description	Timing	Responsible Party	Completed	Initials	Notes (optional)
Measure HW-10: Asbestos and LCP surveys should be performed for any buildings proposed for demolition as part of the Project to satisfy regulatory requirements (asbestos) and demolition waste disposal characterization (asbestos and lead).	Prior to construction	County	☐	_____	
Air Quality					
Measure AQ-1: During construction, all activities will apply standard BMPs to control dust during construction. These practices include, but are not limited to the following: • Application of water on disturbed soils and unpaved roadways a minimum of three times per day • Using track-out prevention devices at construction site access points • Stabilizing construction area exit points • Covering haul vehicles • Restricting vehicles speeds on unpaved roads to 15 miles per hour • Replanting disturbed areas as soon as practical	During construction	Resident Engineer	☐	_____	
Measure AQ-2: Prior to construction, an asbestos dust mitigation plan will be submitted to the Air Quality Management District for review and approval. All BMPs and minimization measures required by the AQMD will be adhered to throughout the duration of construction activities.	Prior to construction (prepare) / During construction (implement)	County / Resident Engineer	☐	_____	
Noise					
Measure NOI-1: All equipment will have sound-control devices that are no less effective than those provided on the original equipment. No equipment will have an unmuffled exhaust.	During construction	Resident Engineer	☐	_____	
Measure NOI-2: The contractor will implement appropriate additional noise minimization measures, including changing the location of stationary construction equipment, turning off idling equipment, rescheduling construction activity, notifying adjacent residents in advance of construction work, and installing acoustic barriers around stationary construction noise sources.	During construction	Resident Engineer	☐	_____	

Task and Brief Description	Timing	Responsible Party	Completed	Initials	Notes (optional)
Measure NOI-3: Construction will take place between the hours of 7 a.m. and 7 p.m, Monday through Friday, and 8 a.m. and 5 p.m. on weekends and federally recognized holidays. Exceptions are allowed if it can be shown that construction beyond these times is necessary to alleviate traffic congestion and/or safety hazards.	During construction	Resident Engineer	☐	_____	
Biological Environment					
Measure BIO-1: El Dorado County will adhere to all requirements within the County's Oak Resources Management Plan regarding tree removal prior to construction.	Prior to construction	County	☐	_____	
Measure BIO-2: El Dorado County will incorporate oaks as appropriate in the landscaping and revegetation plan.	Prior to construction	County	☐	_____	
Measure BIO-3: To the extent feasible, topsoil that is free of noxious weeds containing native seed stock will be stockpiled separately from subsoils. The soils will be used during revegetation upon completion of construction activities.	During construction	Resident Engineer	☐	_____	
Measure BIO-4: Trees to be impacted will be limited to only those necessary for (i.e., that cannot be avoided by) the roadway improvement. Trees that are not within the direct alignment of project facilities or for which removal is not necessary due to safety issues will be avoided.	During construction	Resident Engineer	☐	_____	
Measure BIO-5: All native oak trees to remain in place within and adjacent to proposed ground disturbances will be designated as "Environmentally Sensitive Areas" (ESAs) and will be temporarily fenced with orange plastic construction (exclusion) fencing throughout all grading and construction activities. To the extent feasible, the exclusion fencing will be installed 6 feet outside the dripline of oak trees greater than 6 inches dbh, and will be staked a minimum of every 6 feet. The fencing is intended to prevent equipment operations in the proximity of protected trees that may compact soil, crush roots, or collide with the tree trunk and/or overhanging branches.	Prior to construction (prepare) / During construction (implement)	County / Resident Engineer	☐	_____	
Measure BIO-6: No construction equipment will be parked, stored or operated within 6 feet of any specimen tree dripline.	During construction	Resident Engineer	☐	_____	

Task and Brief Description	Timing	Responsible Party	Completed	Initials	Notes (optional)
Measure BIO-7: The revegetation/restoration plan will be designed to minimize soil loss immediately after construction and to revegetate disturbed areas with appropriate native plants. The revegetation/restoration plan will be implemented to compensate for the loss and/or disturbance of vegetation on the project site and areas cleared for access and construction staging areas. The restoration plan elements will be graphically depicted on final construction plans, including the location and extent of the dripline for all trees, type and location of any fencing, and equipment storage and staging areas outside of dripline areas.	Prior to construction (prepare) / During construction (implement)	County / Resident Engineer	☐	_____	
Measure BIO-8: Plants selected for revegetation will be native species appropriate for the Ponderosa Interchange project area and will not include any noxious or invasive weeds. Seeds and/or container-grown plants will be obtained from within the Ponderosa Interchange project area when feasible or alternatively from contract-growers using locally occurring native plants. Advance notice will be given to the suppliers or growers to ensure that the required species are ready at the proposed planting time.	Prior to construction (prepare) / During construction (implement)	County / Resident Engineer	☐	_____	
Measures BIO-9: Establish all waterways and aquatic features within the Ponderosa Interchange project area as ESAs. ESA exclusion fencing and silt fencing will be established at least 10 feet from the boundary of all waterways and aquatic features if ground-disturbing activities will occur within 50 feet of any waterway or aquatic feature. BMPs would be followed to minimize erosion and reduce sediments from entering channels and wetlands. All disturbed areas will be replanted upon completion of construction to stabilize soil.	Prior to construction (prepare) / During construction (implement)	County / Resident Engineer	☐	_____	
Measures BIO-10: Work will be conducted in accordance with the SWPPP and NPDES BMPs. The contractor will implement the measures listed the Water Quality and Storm Water Run-off section as well as the following specific measures in order to minimize indirect impacts to nearby waters, wetlands, and aquatic life.	During construction	Resident Engineer	☐	_____	

Task and Brief Description	Timing	Responsible Party	Completed	Initials	Notes (optional)
Measures BIO-11: The contractor will exercise every reasonable precaution to protect drainages from pollution with fuels, oils, bitumen, calcium chloride, and other harmful materials. Construction byproducts and pollutants such as oil, cement, and wash water would be prevented from discharging into the drainage and would be collected and removed from the site.	During construction	Resident Engineer	☐	_____	
Measures BIO-12: Erosion control measures would be applied to all disturbed slopes, including the banks of the streambed. No non-native grasses would be used for erosion control. A combination of straw wattles and a planting of native riparian species will be used for erosion control.	During construction	Resident Engineer	☐	_____	
Measures BIO-13: Silt fencing (or filter fabric) would be used to catch any short-term erosion or sedimentation that may inadvertently occur. Silt-fencing would be installed well above drainages or ponds. Straw bales will not be used for erosion control to avoid introduction of additional noxious weeds to the site, such as star thistle.	During construction	Resident Engineer	☐	_____	
Measures BIO-14: To minimize water quality impacts to the stream after the project is complete, no direct discharge of run-off from newly constructed impervious surface would be allowed to flow directly to the drainage. Run-off from surfaces should be directed through storm water interceptors or vegetated swales constructed at discharge points. These interceptors will remove oil, sediment, and other pollutants that might otherwise flow to downstream waterways.	During construction	Resident Engineer	☐	_____	
Measure BIO-15: No less than 60 days prior to start of ground-disturbing project activities El Dorado County will contribute $880.00 to the Bureau of Land Management for the enhancement of habitat to benefit Layne's Butterweed. Under a phased construction plan, this measure will be implemented prior to construction of the phase that would impact the population of Layne's butterweed.	Prior to construction	County	☐	_____	

Task and Brief Description	Timing	Responsible Party	Completed	Initials	Notes (optional)
Measure BIO-16: Prior to ground disturbing activities, the on-site Layne's butterweed plants will be transplanted to the property recently acquired by El Dorado County, or to suitable habitat on property managed by the Bureau of Land Management within the Cameron Park Unit of the Pine Hill Preserve. Transplanting will occur in accordance with a Layne's Butterweed Transplant and Monitoring Plan that will be prepared by El Dorado County and submitted for review and approval by the USFWS no less than 60 days prior to start of ground-disturbing project activities. Under a phased construction plan, this measure will be implemented prior to construction of the phase that would impact the population of Layne's butterweed. The plan will include the following items: 1. Oversight of the transplanting by a qualified biologist. 2. Details on site preparation. 3. Transplant schedule and procedure. 4. Maintenance of the transplant site (including weed control and vegetation/trash removal). 5. Monitoring criteria (up to five years of monitoring) and remedial actions. 6. Success criteria. 7. Monitoring reporting requirements.	Prior to construction	County	☐	_____	
Measures BIO-17: In compliance with the Executive Order on Invasive Species, E.O. 13112, and subsequent guidance from the Federal Highway Administration, the landscaping and erosion control included in the project will not use species listed as noxious weeds. In areas of particular sensitivity, extra precautions will be taken if invasive species are found in or adjacent to the construction areas. These include the inspection and cleaning of construction equipment and eradication strategies to be implemented should an invasion occur.	Prior to construction (prepare) / During restoration (implement)	County	☐	_____	

Task and Brief Description	Timing	Responsible Party	Completed	Initials	Notes (optional)
Measures BIO-18: To minimize the risk of the risk of introducing additional non-native species into the area, weed-free erosion control applications will be used. No dry-farmed straw will be used and certified weed-free straw will be required where erosion control straw is to be used. In addition, hydro-seed mulch or any other erosion control application must also be certified weed-free. If a revegetation seed mix is to be used, the mix will also be certified weed-free and contain native species appropriate for the project area.	During Construction	County	☐	_____	
Measures BIO-19: All off-road equipment would be cleaned of potential noxious weed sources (mud, vegetation) before entry into the Ponderosa Road Interchange Improvement project area, to help ensure noxious weeds are not introduced into the Ponderosa Road Interchange Improvement project area. The contractor will implement thorough cleaning methods for all equipment before entry. These methods will include high-pressure water hose cleaning, visual inspections, and certification of equipment cleanliness prior to and during construction to ensure that equipment is free of noxious weeds. Equipment will be considered free of soil, seeds, and other such debris when a visual inspection does not disclose such material. Disassembly of equipment components or specialized inspection tools is not required.	During construction	Resident Engineer	☐	_____	
Measures BIO-20: The construction contractor will avoid removing any vegetation during the nesting bird season (February 15 – August 31). If vegetation must be removed within the breeding season, a pre-construction nesting bird survey must be conducted no more than 3 days prior to vegetation removal. The vegetation must be removed within 3 days from the nesting bird survey. A minimum 100-foot no-disturbance buffer will be established around any active nest of migratory birds, and a minimum 300-foot no-disturbance buffer will be established around any nesting raptor species. The contractor must immediately stop work in the nesting area until the appropriate buffer is established and is prohibited from conducting work that could disturb the birds (as determined by a qualified biologist) in the buffer area until a qualified biologist determines the young have fledged. A reduced buffer can be established if determined appropriate by the Project biologist and approved by the County.	Prior to construction	County	☐	_____	
Visual/Aesthetics					

Task and Brief Description	Timing	Responsible Party	Completed	Initials	Notes (optional)
Measure VIS-1: The new external treatments of the interchange will match the theme of new interchanges within the El Dorado County U.S. 50 corridor, specifically, the El Dorado Hills Boulevard Interchange and the Missouri Flat Road Interchange.	Prior to construction	County	☐	_____	

APPENDIX G. LIST OF ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Description
AADT	Annual Average Daily Traffic
ACHP	Advisory Council on Historic Preservation
ACM	asbestos-containing material
ADA	Americans with Disabilities Act
ADI	Area of Direct Impacts
ADL	Aerially Deposited Lead
ADT	Average Daily Traffic
AMS	Alternative Management Standards
APE	Area of Potential Effects
APN	Assessor's Parcel Number
AQMD	Air Quality Management District
ARAR	Applicable or Relevant and Appropriate Requirements
ASR	Archaeological Survey Report
BMPs	Best Management Practices
BSA	Biological Study Area
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCC	Community Character and Cohesion
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
CGP	Construction General Permit
CIA	Community Impact Assessment
CIP	Capital Improvement Program
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	carbon monoxide
CTBG	Census Tract Block Groups
CWA	Clean Water Act
dBA	A-weighted decibels
dbh	diameter at breast height
DPS	Distinct Population Segment

Acronym/Abbreviation	Description
DSA	Disturbed Soil Area
DTSC	Department of Toxic Substance Control
EDCEMD	El Dorado County Environmental Management Department
EID	El Dorado Irrigation District
EMFAC	Emission Factors
EO	Executive Order
EPA	Environmental Protection Agency
ESAs	Environmentally Sensitive Areas
FCAA	Federal Clean Air Act
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
FTIP	Federal Transportation Improvement Program
H_2S	Hydrogen Sulfide
HPSR	Historic Property Survey Report
ISA	Initial Site Assessment
LCP	lead-containing paint
LEDPA	Least Environmentally Damaging Practicable Alternative
LOS	Level of Service
MCAB	Mountain Counties Air Basin
MLD	Most Likely Descendent
MPO	Metropolitan Planning Organization
MSAT	Mobile Source Air Toxics
MS4s	Municipal Separate Storm Sewer System
MTIP	Metropolitan Improvement Transportation Program
MTP	Metropolitan Transportation Plan
MTP/SCS	Metropolitan Transportation Plan/Sustainable Communities Strategy
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NAHC	Native American Heritage Commission
NAL	Numeric Action Level
NCIC	North Central Information Center
NEL	Numeric Effluent Limits
NEPA	National Environmental Policy Act

Acronym/Abbreviation	Description
NES	Natural Environment Study
NMFS	National Marine Fisheries Service (under NOAA)
NOA	Naturally Occurring Asbestos
NOI	Notice of Intent
NHPA	National Historic Preservation Act
NO_2	nitrogen dioxide
NOx	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NSR	Noise Study Report
O_3	ozone
OHWM	ordinary high water mark
OWMP	Oak Woodland Management Plan
PA	Programmatic Agreement
Pb	lead
PDT	Project Development Team
PG&E	Pacific Gas and Electric Company
PLACs	Permits, Licenses, Agreements, and Certifications
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
PM_{10}	particulate matter less than 10 microns in diameter
POAQC	Project of Air Quality Concern
Ppd	pounds per day
PRDs	Project Registration Documents
Project	U.S. Highway 50/Ponderosa Road/South Shingle Road Interchange Improvements Project
PUC	Public Utilities Commission
QPE	Qualifying Precipitation Event
QSD	Qualified SWPPP Developer
QSP	Qualified SWPPP Practitioner
RAP	Relocation Assistance Program
RCRA	Resource Conservation and Recovery Act
RECs	Recognized Environmental Conditions
RL	Risk Level
ROG	Reactive Organic Gases
ROW	Right of Way

Acronym/Abbreviation	Description
RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
RUSLE	Revised Universal Soil Loss Equation
RWQCB	Regional Water Quality Control Board
SACOG	Sacramento Area Council of Governments
SCS	Sustainable Communities Strategy
SDC	Seismic Design Criteria
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SLF	Sacred Lands File
SMARTS	Stormwater Multiple Application and Report Tracking System
SO_2	sulfur dioxide
SSBMI	Shingle Springs Band of Miwok Indians
SSC	State Species of Special Concern
SSPs	Caltrans Standard Special Provisions
SWMP	Storm Water Management Plan
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminants
TAR	Traffic Analysis Report
T-BACT	Toxic Best Available Control Technology
TCP	Traditional Cultural Properties
TMDL	Total Maximum Daily Load
TMP	Transportation Management Plan
TWW	Treated Wood Waste
U.S.	United States
USC	United States Code
USACE	U.S. Army Corps of Engineers
USDOT	United States Department of Transportation
U.S. EPA	United States Environmental Protection Agency
USFWS	United State Fish and Wildlife Service
UST	Underground Storage Tank
VIA	Visual Impact Assessment
WDID	Waste Discharge Identification
WDRs	Waste Discharge Requirements

Acronym/Abbreviation	Description
WPCP	Water Pollution Control Program
VIA	Visual Impact Assessment
VMT	Vehicle Miles Traveled

APPENDIX J. LIST OF TECHNICAL STUDIES

Technical Study	Approval Date
Air Quality Technical Report (updated August 2011) Air Quality Technical Report Addendum	June 2009 January 2025
Biological Assessment for Layne's Butterweed and the California Red Legged Frog	May 2009
Community Impact Assessment Community Impact Assessment Addendum	February 2009 May 2024
Hazardous Waste Initial Site Assessment (updated May 2024)	January 2009
Historical Property Survey Report Supplemental Historic Property Survey Report (2016 and 2024)	December 2008 April 2016 and December 2024
Natural Environment Study Natural Environment Study Addendums (2015, 2024, and 2025)	January 2009 July 2016 May 2024 June 2025
Noise Study Report Noise Study Report Addendum (2009 and 2025)	January 2009 February 2009 January 2025
Preliminary Geotechnical Report	December 2008
Relocation Impact Study	April 2009
Traffic Report Transportation Analysis Report	March 2009 November 2024
Visual Impact Assessment	July 2024
Stormwater Data Report	May 2025

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