U.S. 50/PONDEROSA ROAD/SOUTH SHINGLE SPRINGS ROAD INTERCHANGE IMPROVEMENTS PROJECT

EL DORADO COUNTY, CALIFORNIA
DISTRICT 3 – ELD – 50 (PM 8.3/8.7)
EA 03-2E550

Initial Study with Proposed Mitigated Negative Declaration/Environmental Assessment with Finding of No Significant Impact

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

The environmental review, consultation, and any other action required in accordance with applicable Federal laws for this project is being, or has been, carried out by Caltrans under its assumption of responsibility pursuant to 23 U.S.C. 327.

January 2018

General Information about This Document

What's in this document:
The El Dorado County Department of Transportation (County) and California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration (FHWA), have prepared this Initial Study/Environmental Assessment (IS/EA), which examines the potential environmental impacts of the alternatives being considered for the proposed project located in El Dorado County, California. The County is the California Environmental Quality Act (CEQA) lead agency, while Caltrans is the National Environmental Policy Act (NEPA) lead agency. The document describes 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.

What you should do:

- Please read the document.
- Additional copies of the document, as well as of the technical studies relied on in preparing it, are available for review at the following locations:
  - El Dorado County Department of Transportation, 2850 Fairlane Court, Placerville, CA 95667
  - Caltrans District 3, 703 B Street, Marysville, CA 95901
  - El Dorado County Library, 345 Fair Lane, Placerville, CA 95667
- If you have any comments regarding the proposed project, please send your written comments to El Dorado County by the deadline.
  - Submit comments via postal mail to:
    Attention: Donna Keeler , Principal Planner
    El Dorado County Department of Transportation
    2850 Fairlane Court, Placerville, CA 95667
  - Submit comments via email to: donna.keeler@edcgov.us
- The comment deadline is: February 26, 2018

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

It should be noted that at a future date, Caltrans acting through FHWA or another federal agency may publish a notice in the Federal Register, pursuant to 23 USC §139(I), indicating that a final action has been taken on this project by Caltrans or another federal agency. If such notice is published, a lawsuit or other legal claim will be barred unless it is filed within 180 days after the date of publication of the notice (or within such shorter time period as is specified in the Federal laws pursuant to which judicial review of the federal agency action is allowed). If no notice is published, then the lawsuit or claim can be filed as long as the periods of time provided by other Federal laws that govern claims are met.

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 El Dorado County, Attn: Donna Keeler, El Dorado County Department of Transportation, 2850 Fairlane Court, Placerville, CA 95667; (530) 621-5900-Voice.

SCH# _____
3-ELD-50-PM 8.3/8.7
EA 03-2E550

To improve the United States (U.S.) Highway 50/Ponderosa Road/South Shingle Springs Road Interchange in El Dorado County,
(post mile 8.3 to post mile 8.7)

Initial Study with Proposed Mitigated Negative Declaration/ Environmental Assessment

Submitted Pursuant to: (State) Division 13, California Public Resources Code
(Federal) 42 USC 4332(2)(C)

The State of California Department of Transportation

and

El Dorado County Department of Transportation

10/20/17
Date of Approval

Amarjeet Benipal
District Director
California Department of Transportation
NEPA Lead Agency

1/12/18
Date of Approval

Rafael Martinez
Director of the Department of Transportation
El Dorado County
CEQA Lead Agency

SCH:

PROPOSED MITIGATED NEGATIVE DECLARATION

Pursuant to: Division 13, Public Resources Code

Project Description

The El Dorado County Department of Transportation (County) proposes to modify the existing U.S. 50/Ponderosa Road/South Shingle Springs Road Interchange and adjacent frontage roads. This project is located in El Dorado County, California.

Determination

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

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

The proposed project would have no effect on farmlands/timberlands, the coastal zone, or wild and scenic rivers.

The proposed project would have no significant effect on parks and recreation facilities, environmental justice, visual resources, hydrology and floodplain resources, and paleontology.

The proposed project would have no significantly adverse effect on growth, relocations, utilities and emergency services, traffic and transportation systems, cultural resources, water quality and stormwater run-off, geology and soils, hazardous waste/materials, air quality, noise, and biological resources. The following avoidance, minimization, and mitigation measures have been included to reduce the potential for impacts to the environment:

- Community Character and Cohesion Measures CCC-1 through CCC-4
- Relocation Measures RLC-1 through RLC-2
- Utilities and Emergency Services Measures UTL/ES-1 through UTL/ES-3
- Traffic & Transportation/Pedestrian & Bicycle Measures TRAF-1 through TRAF-3
- Cultural Resources Measures CR-1 through CR-2
- Water Quality and Stormwater Run-off Measures SWR-1 through SWR-4
- Geology/Soils/Seismic/Topography Resources Measure GEO-1
- Hazardous Waste Measures HW-1 through HW-3
- Air Quality Measures AQ-1 through AQ-2
- Noise Measures NOI-1 through NOI-4
- Biological Resources Measures BIO-1 through BIO-19

These measures can be found throughout the document in their respective discussion sections and in Appendix D: Environmental Commitment Record.

_____ _____

Rafael Martinez, Director Date
Community Development Services
Department of Transportation
El Dorado County

SUMMARY

The El Dorado County Department of Transportation (County) proposes to improve the United States (U.S.) Highway 50/Ponderosa/South Shingle Springs Road Interchange and realign frontage roads at Durock Road, North Shingle Road and Wild Chaparral Drive in El Dorado County, California.

The purpose for the proposed Ponderosa Interchange modification and road realignments is five-fold: (1) address an existing operations problem; (2) improve Levels of Service (LOS); (3) maintain adequate LOS for main-line operations and existing access points to and from U.S. 50; (4) improve multimodal mobility (e.g., bike and pedestrian) within and through the interchange, and (5) provide for future traffic growth at this interchange, projected to occur from planned regional growth.

This environmental document is prepared in conformance with the requirements of the National Environmental Policy Act (NEPA) 40 CFR 1500-1508 and the California Environmental Quality Act (CEQA) Public Resources Code 21000-21178. For this project, Caltrans is the NEPA lead agency and the County is the CEQA lead agency. The environmental review, consultation, and any other action required in accordance with applicable Federal laws for this project is being, or has been carried out by Caltrans under its assumption of responsibility pursuant to 23 U.S.C. 327. Compliance with the NEPA is required as a result of potential federal funding for the project and federal actions required to approve the project. In addition to potential federal funds, the project will also use local funds from El Dorado County.

In order to provide decision makers, the public, and reviewing agencies a complete description of the project, its purpose and need, and a description of how this project has the potential to impact the natural and human environment, this Initial Study/Environmental Assessment has been prepared as a joint CEQA/NEPA environmental document. The document has been prepared following the Caltrans joint document format which provides an overview of the project in Chapter 1, evaluates each environmental resource for potential impacts and measures to reduce those impacts in Chapter 2, and outlines the environmental process and public involvement in Chapter 3.

U.S. Highway 50 (U.S. 50) is a major east/west route and serves as an interstate connector in California between Sacramento and South Lake Tahoe. Within the project limits, U.S. 50 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. 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 of these intersections are signalized and situated in a tightly spaced, non-standard, position relative to the bridge over U.S. 50. The on- and off-ramps in their configuration with the north and south intersections operate at levels of service approaching failure and are expected to deteriorate substantially more by 2035, the design year.

This environmental document evaluates four alternatives that are being proposed for this project. Build Alternative 1 would widen the existing overpass from three to five lanes, would widen and realign the interchange ramps and adjacent roadways, and would improve intersections in the project area. Build Alternative 2 is similar to Build Alternative 1, but it would additionally realign the existing Wild Chaparral Drive connection to the north and would create a new cul-de-sac with the connection to Ponderosa Road. Build Alternative 3 would widen the overpass from 3 to 5 lanes and would improve local approaches and existing intersections. Build Alternative 3 should be considered a "minimum impact" build solution because it would require less right-of-way (ROW) impacts compared with Build Alternatives 1 and 2; however, it would only minimally improve the degrading LOS situation in the project area by 2035. The fourth alternative is the No-Build Alternative which would maintain the existing facility. The No-Build Alternative does not address the current deficiencies or long-term traffic needs of the U.S. 50 corridor or the Ponderosa Interchange.

The table below is a summary of impacts associated with each of the project alternatives. Each section is described more thoroughly in Chapter 2 of this document.

Summary of Major Potential Impacts from Alternatives

Potential Impact		Build Alternative 1	Build Alternative 2	Build Alternative 3	No-Build Alternative
Land Use	**Consistency with the El Dorado County General Plan**	Build Alternative 1 is consistent with the County's General Plan by including avoidance, minimization, and mitigation measures included in this environmental document. Park and ride parking will be replaced as part of the project design.	Build Alternative 2 is consistent with the County's General Plan by including avoidance, minimization, and mitigation measures included in this environmental document. Park and ride parking will be replaced as part of the project design.	Build Alternative 3 is only partially consistent with the County's General Plan. This alternative would improve safety, improve air quality in the region, and provide pedestrian facilities; however, four of the project intersections would operate at LOS F in 2035.	The No-Build Alternative would not improve safety, air quality, pedestrian facilities, and would result in a LOS F at the majority of facilities in the project area.
Growth		Build Alternative 1 is consistent with the County's General Plan; no unplanned growth will be induced.	Build Alternative 2 is consistent with the County's General Plan; no unplanned growth will be induced.	Build Alternative 3 is consistent with the County's General Plan; no unplanned growth will be induced.	The existing interchange would not be improved and would not be consistent with the Growth planned for in the County's General Plan.
Community	**Community Character and Cohesion**	Build Alternative 1 would require permanent ROW acquisition, but would only require relocation of one business. No communities would be divided and the traffic and pedestrian facilities would be greatly improved. Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	Build Alternative 2 would require permanent ROW acquisition, but would only require relocation of one business. No communities would be divided and the traffic and pedestrian facilities would be greatly improved. Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	Build Alternative 3 would have minor impacts to Community Character and Cohesion. It would require substantially less ROW acquisitions compared with Build Alternatives 1 and 2, but it would only marginally improve the LOS in the project area in by 2035. Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	No impacts would occur to the existing community, but would result in unacceptable LOS by 2035.

Potential Impact		Build Alternative 1	Build Alternative 2	Build Alternative 3	No-Build Alternative
	Relocation	Build Alternative 1 would require partial ROW acquisition from 31 parcels and full acquisition from 2 parcels. One commercial relocation would be necessary (the other is a vacant residential parcel). Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	Build Alternative 2 would require partial ROW acquisition from 31 parcels and full acquisition from 2 parcels. One commercial relocation would be necessary (the other is a vacant residential parcel). Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	Build Alternative 3 would require partial ROW acquisition from 14 parcels. No relocations would be necessary since the full acquisition is currently a vacant residential parcel. Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	No acquisitions will be required; no relocations would be necessary. No impact.
	Environmental Justice	Build Alternative 1 will not cause a disproportionately high or adverse effect on any minority or low-income populations. No impact.	Build Alternative 2 will not cause a disproportionately high or adverse effect on any minority or low-income populations. No impact.	Build Alternative 3 will not cause a disproportionately high or adverse effect on any minority or low-income populations. No impact.	No impact.
Utilities/Emergency Services		Build Alternative 1 would require utility coordination and potential relocation of Comcast, PG&E, AT&T, and El Dorado Irrigation District utilites. Operational efficiency for emergency service will ultimately be improved. Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	Build Alternative 2 would require utility coordination and potential relocation of Comcast, PG&E, AT&T, and El Dorado Irrigation District utilities. Operational efficiency for emergency service will ultimately be improved. Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	Build Alternative 3 would require utility coordination and potential relocation of Comcast, PG&E, and AT&T utilities. Operational efficiency for emergency service will ultimately be improved. Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	No impact to existing utilities. New facilities will not be installed. Operational efficiency for emergency services will not be improved. No impact.
Traffic and Transportation/ Pedestrian and Bicycle Facilities		Build Alternative 1 would result in a substantial improvement in present and future traffic operations, however construction could impact traffic temporarily. Pedestrian and bicycle facilities would be improved.	Build Alternative 2 would result in a substantial improvement in present and future traffic operations, however construction could impact traffic temporarily. Pedestrian and bicycle facilities would be improved.	Build Alternative 3 would result in a substantial improvement in present and future traffic operations, however construction could impact traffic temporarily. Pedestrian and bicycle facilities would be improved.	The No-Build would not improve existing or future traffic operations, nor would it improve safety, pedestrian facilities, or bicycle facilities. No impact.

Potential Impact	Build Alternative 1	Build Alternative 2	Build Alternative 3	No-Build Alternative
Visual/Aesthetics	Build Alternative 1 would reduce visual quality in the project area through increased pavement and the removal of trees and other landscaping, but would not significantly impact the visual character of the project area. Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	Build Alternative 2 would reduce visual quality in the project area through increased pavement and the removal of trees and other landscaping, but would not significantly impact the visual character of the project area. Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	Build Alternative 3 would reduce visual quality in the project area through increased pavement and the removal of trees and other landscaping, but would not significantly impact the visual character of the project area. Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	No impact.
Cultural Resources	Build Alternative 1 is not expected to encounter any historic or archaeological resources during project construction. If resources are discovered, construction will stop until a qualified cultural specialist can determine how to protect sensitive resources. Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	Build Alternative 2 is not expected to encounter any historic or archaeological resources during project construction. If resources are discovered, construction will stop until a qualified cultural specialist can determine how to protect sensitive resources. Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	Build Alternative 3 is not expected to encounter any historic or archaeological resources during project construction. If resources are discovered, construction will stop until a qualified cultural specialist can determine how to protect sensitive resources. Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	No impact.
Water Quality and Stormwater Run-off	Build Alternative 1 would increase impervious surfaces and would have the potential to introduce pollutants during construction. Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	Build Alternative 2 would increase impervious surfaces and would have the potential to introduce pollutants during construction. Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	Build Alternative 3 would increase impervious surfaces and would have the potential to introduce pollutants during construction. Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	No Impact.

Potential Impact	Build Alternative 1	Build Alternative 2	Build Alternative 3	No-Build Alternative
Geology/Soils/ Seismic/Topography	Build Alternative 1 construction activities could result in impacts to naturally occurring asbestos in the project area. An asbestos fugitive dust mitigation plan will be obtained from El Dorado County Air Quality Management District prior to construction. Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	Build Alternative 2 construction activities could result in impacts to naturally occurring asbestos in the project area. An asbestos fugitive dust mitigation plan will be obtained from El Dorado County Air Quality Management District prior to construction. Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	Build Alternative 3 construction activities could result in impacts to naturally occurring asbestos in the project area. An asbestos fugitive dust mitigation plan will be obtained from El Dorado County Air Quality Management District prior to construction. Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	No impact.
Hazardous Waste/Materials	Concerns including naturally occurring asbestos, aerially deposited lead, asbestos containing materials and lead-based paints. Additional surveys will be conducted during the final design stage to verify the presence/extent of Recognized Environmental Conditions and evaluate the potential for remediation. Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	Concerns including naturally occurring asbestos, aerially deposited lead, asbestos containing materials and lead-based paints. Additional surveys will be conducted during the final design stage to verify the presence/extent of Recognized Environmental Conditions and evaluate the potential for remediation. Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	Concerns including naturally occurring asbestos, aerially deposited lead, asbestos containing materials and lead-based paints. Additional surveys will be conducted during the final design stage to verify the presence/extent of Recognized Environmental Conditions and evaluate the potential for remediation. Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	No impact.

Potential Impact	Build Alternative 1	Build Alternative 2	Build Alternative 3	No-Build Alternative
Air Quality	Build Alternative 1 will not have adverse air quality impacts. Construction impacts to air quality are short-term in duration and, therefore, will not result in adverse or long-term conditions. Congestion in the project area would be relieved which would improve regional and local air quality conditions. Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	Build Alternative 2 will not have adverse air quality impacts. Construction impacts to air quality are short-term in duration and, therefore, will not result in adverse or long-term conditions. Congestion in the project area would be relieved which would improve regional and local air quality conditions. Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	Build Alternative 3 will not have adverse air quality impacts. Construction impacts to air quality are short-term in duration and, therefore, will not result in adverse or long-term conditions. Congestion in the project area would be relieved which would improve regional and local air quality conditions. Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	Congestion in the project area would not be reduced; consequently, air pollution resulting from congestion would not be reduced. No impact.
Noise	Build Alternative 1 would cause noise receivers along the new alignment of Durock Road to experience noise impacts necessitating the use of noise abatement in the form of rubberized asphalt. Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	Build Alternative 2 would cause noise receivers along the new alignment of Durock Road to experience noise impacts necessitating the use of noise abatement in the form of rubberized asphalt. Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	Build Alternative 3 would not cause any noise receivers to experience noise impacts. Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	No impact.
Natural Communities	Build Alternative 1 would result in impacts to 4.58 acres of oak woodland in the project area. Potential impacts to oak woodland would be mitigated by payment into the County's Oak Woodland Conservation Fund. Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	Build Alternative 2 would result in impacts to 5.05 acres of oak woodland in the project area. Potential impacts to oak woodland would be mitigated by payment into the County's Oak Woodland Conservation Fund. Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	Build Alternative 3 would result in impacts to 1.50 acres of oak woodland in the project area. Potential impacts to oak woodland would be mitigated by payment into the County's Oak Woodland Conservation Fund. Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	No impact.

Potential Impact	Build Alternative 1	Build Alternative 2	Build Alternative 3	No-Build Alternative
Wetlands and other Waters	Build Alternative 1 would result in no impacts to wetlands and other waters with inclusion of avoidance and minimization measures included in this environmental document.	Build Alternative 2 would result in no impacts to wetlands and other waters with inclusion of avoidance and minimization measures included in this environmental document.	Build Alternative 3 would result in no impacts to wetlands and other waters with inclusion of avoidance and minimization measures included in this environmental document.	No impact.
Threatened and Endangered Species	Build Alternative 1 would result in impacts to Layne's Butterweed. Formal Section 7 Consultation with the USFWS resulted in Service approved minimization and mitigation measures that would ensure potential impacts are not significant to this threatened species.	Build Alternative 2 would result in impacts to Layne's Butterweed. Formal Section 7 Consultation with the USFWS resulted in Service approved minimization and mitigation measures that would ensure potential impacts are not significant to this threatened species.	Build Alternative 3 would result in impacts to Layne's Butterweed. Formal Section 7 Consultation with the USFWS resulted in Service approved minimization and mitigation measures that would ensure potential impacts are not significant to this threatened species.	No impact.
Invasive Species	Implementation of minimization measures will ensure that Build Alternative 1 will not spread invasive plants into or from the project site.	Implementation of minimization measures will ensure that Build Alternative 2 will not spread invasive plants into or from the project site.	Implementation of minimization measures will ensure that Build Alternative 3 will not spread invasive plants into or from the project site.	No impact.
Climate Change	Build Alternative 1 would reduce existing and future congestion which would reduce GHG emissions. Additionally, measures have been included to minimize construction and cumulative climate change impacts. Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	Build Alternative 2 would reduce existing and future congestion which would reduce GHG emissions. Additionally, measures have been included to minimize construction and cumulative climate change impacts. Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	Build Alternative 3 would reduce existing and future congestion which would reduce GHG emissions. Additionally, measures have been included to minimize construction and cumulative climate change impacts. Avoidance, minimization, and/or mitigation measures would ensure impacts are not substantial.	No impact.
Cumulative Impacts	Build Alternative 1 would not result in any cumulative impacts.	Build Alternative 2 would not result in any cumulative impacts.	Build Alternative 3 would not result in any cumulative impacts.	No impact.

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CHAPTER 1 - PROPOSED PROJECT

1.1 Introduction

The El Dorado County Department of Transportation (County) proposes to improve the United State (U.S.) Highway 50/Ponderosa Road/South Shingle Springs Road Interchange and realign frontage roads at Durock Road, North Shingle Road and Wild Chaparral Drive in El Dorado County, California. The County 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.

In order to provide decision makers, the public, and reviewing agencies a complete description of the project, its purpose and need, and a description of how this project has the potential to impact the natural and human environment, this Initial Study/Environmental Assessment has been prepared as a joint CEQA/NEPA environmental document. The document has been prepared following the Caltrans joint document format which provides an overview of the project in Chapter 1, evaluates each environmental resource for potential impacts and measures to reduce those impacts in Chapter 2, and outlines the environmental process and public involvement in Chapter 3.

The existing United States Highway 50 (U.S. 50)/Ponderosa Road/South Shingle Springs Road Interchange is located immediately west of Shingle Springs, El Dorado County, California, nine miles (14.5 km) west of the City of Placerville and 34 miles (54.7 km) east of downtown Sacramento (Figure 1). 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 Springs Road, Wild Chaparral and Mother Lode drives, Sunset and Durock roads. 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. 50. Through the project, U.S. 50 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 Springs Road. South Shingle Springs Road connects Ponderosa Road to Latrobe Road, approximately eight miles southwest of the project. North Shingle Road, a north-south two-lane arterial, joins Ponderosa Road to Green Valley Road. Durock Road, Mother Lode and Wild Chaparral drives, are all east-west, two-lane arterials. Durock Road extends south of Cameron Park Drive to South Shingle Spring Road,

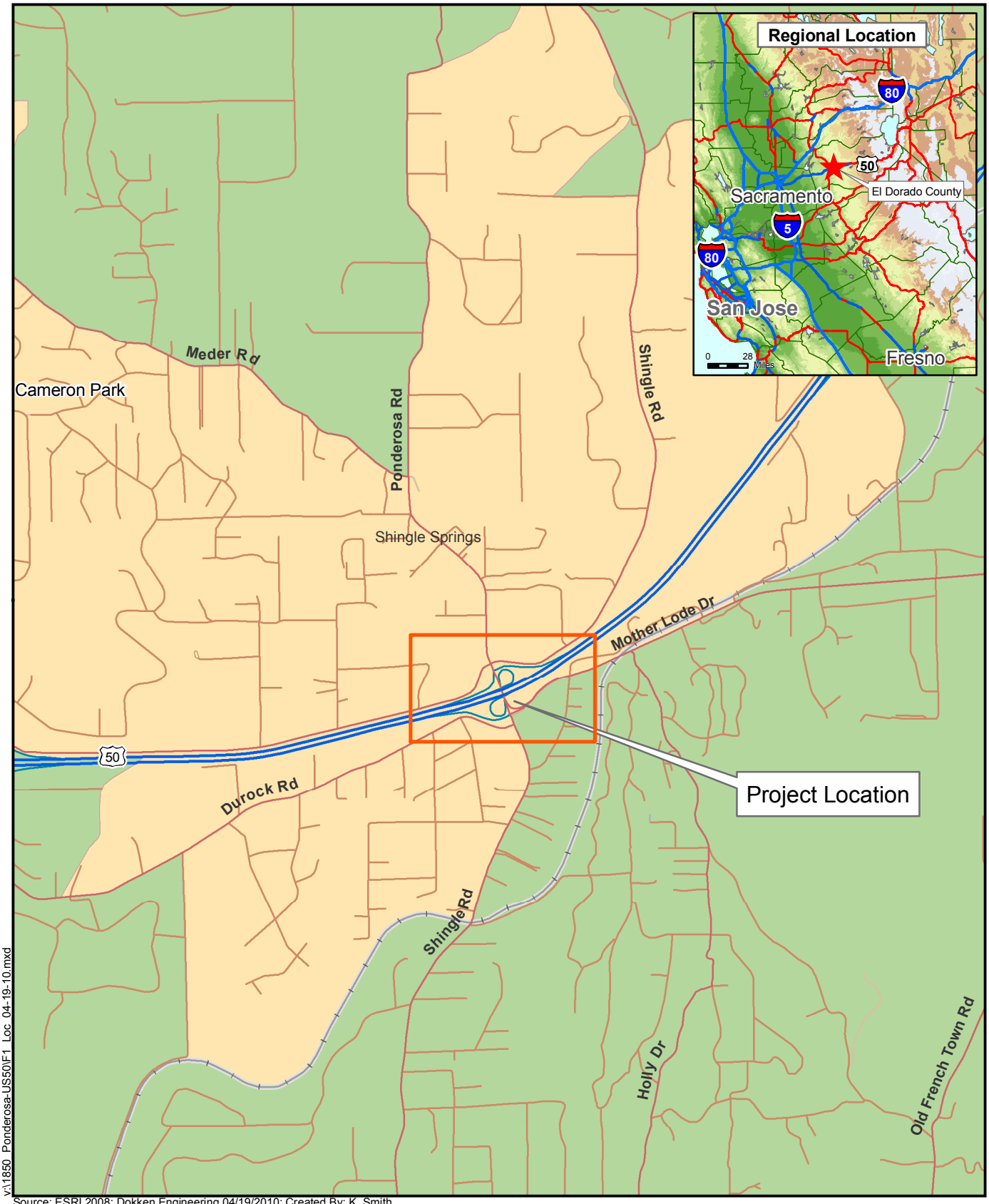

FIGURE 1
PROJECT LOCATION
U.S.-50/Ponderosa Road/South Shingle Road Interchange Improvements Project
District 3-ELD-50 (PM 8.3/8.7)
Federal Project # EA 03-2E550
El Dorado County, California

where it then merges into Mother Lode Drive, before continuing eastward. Mother Lode Drive is situated between Ponderosa and Missouri Flat roads. Wild Chaparral carries traffic west of Ponderosa to its terminus west of Many Oaks Lane. Sunset Lane, a minor two-lane road, connects Mother Lode Drive with South Shingle Springs Road.

Traffic congestion has increased over the last 20 years and 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 20 years. This project has been designed to improve traffic congestion and interchange operation for both the current and future interchange conditions.

Accident rates at the interchange are also a concern since two out of five of the interchange ramps are equal to, or worse than the statewide average. The eastbound off-ramp had 8 accidents attributed to speed and improper turns (Traffic Accident Surveillance and Analysis System [TASAS] January 2012 through December 2014). The data was analyzed further to determine that rear-end collisions and hit objects accounted for 13% and 25% respectively. These collisions are indicative of high traffic volumes and associated congestion. The ramps and signalized frontage roads will operate at a failing Level of Service (LOS) in 2035 (Design Year) if improvements are not made.

The El Dorado County Regional Transportation Plan identifies the need for improvements at U.S. 50/Ponderosa Road within the unincorporated region of the County (Capital Improvement Program [CIP] Project No. 71333). The Sacramento Area Council of Governments (SACOG) also includes the project in their 2016 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS). In addition, it is consistent with the El Dorado County General Plan, and the El Dorado County Bicycle Transportation Plan (which shows Class II bike facilities along Ponderosa Road, Mother Lode Drive and South Shingle Springs Road). This proposed transportation improvement would respond to current congestion, decreasing existing levels of service and anticipated future demands of motor vehicle traffic within the project area.

1.2 Purpose and Need

In the more than forty years since construction of the interchange, there has been increased traffic due to cumulative 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.

1.2.1 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, will 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 (2035) condition are shown Section 4.3 below.

The eastbound off-ramp currently experience LOS E conditions in the PM peak hour, and several of the local road intersections within and/or immediately adjacent to the interchange operate at LOS D. With the exception of the South Shingle Springs Springs/Sunset Lane intersection, all other intersections and ramp are forecasted to operate at LOS F by 2035.

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 Bicycle Transportation Plan.

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.	

Table 2: Level of Service for Existing Conditions

Intersection	AM Peak Hour	PM Peak Hour
	LOS	LOS
1) Ponderosa Road / North Shingle Springs Road	D	C
2) Ponderosa Road / U.S. 50 WB off-ramp (Wild Chaparral Drive)	B	B
3) Ponderosa Road / U.S. 50 EB off-ramps, Mother Lode Drive	D	D
4) South Shingle Springs Road / Durock Road	C	D
5) South Shingle Springs Road / Sunset Lane	A	A
6) Mother Lode Drive / Sunset Lane	A	A

Source: Fehr & Peers, 2009

- All intersection operations analysis were conducted using procedures and methodologies contained in the Highway Capacity Manual, Transportation Research Board, 2000.
- Intersections were analyzed using the Synchro/SimTraffic microscopic traffic simulation analysis software.
- Freeway mainline segments and ramp junctions were analyzed using the Highway Capacity Software.

Table 3: Level of Service for Design Year (2035) by Build Alternative

Intersection	No-Build		With Project Alternative 1		With Project Alternative 2		With Project Alternative 3	
	AM	PM	AM	PM	AM	PM	AM	PM
1) Ponderosa Road/North Shingle Springs Road	**F**	**F**	B	B	C	B	**F**	**F**
2) Ponderosa Road/U.S. 50 WB off-ramp (Wild Chaparral Dr.)	**F**	**F**	B	B	A	B	**F**	**F**
3) Ponderosa Road/U.S. 50 EB off-ramps, Mother Lode Drive	**F**	**F**	C	D	C	D	**F**	**F**
4) South Shingle Springs Road/ Durock Road	E	**F**	--	--	--	--	E	**F**
5) South Shingle Springs Road/ Sunset Lane	A	B	B	C	B	C	A	A
6) Mother Lode Drive/Sunset Lane	C	**F**	A	C	B	C	E	C

Notes: *Bold and underline font indicate unacceptable operations based on analysis evaluation criteria. Level of service (LOS) and control delay (in seconds per vehicle) are reported.*

Source: Fehr & Peers, 2009

- All intersection operations analysis were conducted using procedures and methodologies contained in the Highway Capacity Manual, Transportation Research Board, 2000.
- Intersections were analyzed using the Synchro/SimTraffic microscopic traffic simulation analysis software.
- Freeway mainline segments and ramp junctions were analyzed using the Highway Capacity Software.

1.2.2 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 storage distances between intersections, 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 – The eastbound off-ramp currently experiences LOS E conditions in the PM peak hour, and several of the local road intersections within and/or immediately adjacent to the interchange operate at LOS D.

- Maintain acceptable LOS on U.S. 50 and at existing access points to and from U.S. 50 – Provide improvements to maintain LOS E for the freeway mainline and interchange ramp junctions.

- Improve multimodal mobility within and through the interchange – Existing bicycle and pedestrian facilities are not ADA compliant and/or consistent with the El Dorado County

Bicycle Transportation Plan. El Dorado County Transit Authority fixed routes and commuter busses experience delays through the intersection while accessing the transit stop and park and ride lot on the interchange's north side.

- Accommodate the needs of future local and regional traffic – With the exception of the South Shingle Springs Road/Sunset Lane intersection, all other intersections and ramps are forecast to operate at LOS F in 2035 under existing (no improvements) conditions. Therefore, the build alternatives include improving the interchange configuration and facilitating ramp movements to provide improved LOS for 2035 conditions.

1.2.3 Independent Utility and Logical Termini

Federal Highway Administration (FHWA) regulations (23 CFR 771.111 (f)) require that a proposed project:

- Connect logical termini and be of sufficient length to address environmental matters on a broad scope;

- Have independent utility or independent significance (be usable and require a reasonable expenditure even if no additional transportation improvements in the area are made); and

- Not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

As described in this section, the proposed U.S. 50/Ponderosa Road/South Shingle Springs Road Interchange Improvement project specifically addresses existing and forecast congestion and traffic volumes at the interchange. The project proposes improvements on Ponderosa Road/South Shingle Springs Road at its crossing of U.S. 50 to accommodate ramp improvements, intersection improvements, and roadway realignments for the nearby connecting roadways. These improvements will 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 will be designated and constructed to minimize the potential conflict with other reasonably foreseeable transportation improvements in the area.

1.3 Project Description

This section describes the proposed action and the design alternatives that were developed to meet the identified need through accomplishing the defined purpose(s), while avoiding or minimizing environmental impacts. The alternatives are Build Alternative 1, 2, 3, and the No-Build Alternative.

The proposed improvements entail modifying the existing U.S. 50/Ponderosa Road/South Shingle Springs 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; and adding square ramp junctions and islands to provide safety and ADA compliance for pedestrians and bicycles. Generally 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 southern direction 600 feet to the South Shingle Springs Road and Sunset Lane Road junction. The project footprint encompasses approximately 165 acres and would involve partial and full right of way acquisitions. 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.

1.4 Alternatives

Several alternatives were developed and considered by the U.S. 50/Ponderosa Road/South Shingle Springs Road Interchange Improvement Project Development Team (PDT). The PDT includes County staff, Caltrans District 3 staff and engineering and environmental planning consultants (David Evans and Associates, Inc., Fehr & Peers Transportation Consultants, PAR Environmental Services, Inc. and Dokken Engineering). Alternatives considered feasible are described below.

1.4.1 Build Alternatives

Common Design Features of the Build Alternatives

The following design features are proposed for all build alternatives.

- Increase the capacity of the overcrossing from three to five lanes (12-foot-wide) including eight-foot-wide shoulders and six-foot sidewalks on both sides for a total bridge width of 94 feet (Alternatives 1, 2, and 3).

- Widen the westbound on-ramps (both loop and slip on-ramps) to provide two lanes, including a mixed flow and HOV and add ramp metering (Alternatives 1, 2, and 3).

- Provide acceleration/deceleration lanes at all ramps (Alternatives 1, 2, and 3).

- Add turn pockets on the local roads at ramp intersections (Alternatives 1, 2, and 3).

- Square ramp junctions and add islands to provide safety and ADA compliance for pedestrians and bicycles. This would apply to the westbound loop on-ramp and westbound off-ramp (Alternatives 1, 2, and 3).

Additionally, Alternatives 1 and 2 increase the storage distance between the local roads and ramps to further improve traffic operations. Build Alternative 3 is considered a “minimum” impact option and, therefore, does not incorporate the design features mentioned below.

- Realign Durock Road to the south approximately 600 feet opposite Sunset Lane (Alternatives 1 and 2).

- Realign North Shingle Road to the north approximately 500 feet (Alternatives 1 and 2).

- Realign westbound loop on-ramp and eastbound off-ramp opposite Wild Chaparral Drive to create one intersection (Alternatives 1 and 2).

- Realign Wild Chaparral Drive to the north approximately 500 feet opposite North Shingle Road (Alternative 2)

- Provide cul-de-sac access to auto dealership and park and ride (along existing Wild Chaparral Drive alignment) at Ponderosa Road/westbound loop on-ramp/eastbound off-ramp intersection (Alternative 2).

Unique Features of the Build Alternatives

1.4.1.1 Build Alternative 1

This build option proposes to widen the existing bridge from three to five lanes. It includes road widening and realignments of North Shingle and Durock roads. 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. Alternative 1 also includes adding turn pockets, providing acceleration/deceleration lanes, 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 2. This alternative meets the purpose and need of the project.

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 will 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 will be required and identified on the construction drawings within the project footprint. A staged construction program will also be adopted with access to adjacent businesses maintained.

The design, right of way acquisitions, utility relocations (including undergrounding), and construction of the project may be phased. Currently, the tentative phasing plan includes three phases. Phase 1 is the realignment of Durock Road, Phase 2 is the realignment of North Shingle Road and westbound off-ramp improvements, and Phase 3 is the overcrossing widening and the remaining ramp improvements.

1.4.1.2 Build Alternative 2

Build Alternative 2 includes all the design features of Alternative 1 (described above). The same utility relocations as Build Alternative 1 would also be required. Additionally, 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. See Figure 3 for preliminary layout drawings of Alternative 2 This alternative meets the purpose and need of the project.

1.4.1.3 Build Alternative 3

Alternative 3 is characterized as a "Minimum Impact" build solution because it would require less right-of-way (ROW) impacts compared to the other two alternatives discussed above. The alternative proposes 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 and Durock roads. The preliminary geometrics are shown in Figure 4. This alternative, due to forecasted LOS in 2035, only partially meets the purpose and need of the project.

1.4.2 No-Build 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, and 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 existing condition, which would remain the same under the No-Build Alternative, is shown under Figure 5. The "No Build" option does not address the current traffic deficiencies which are expected to deteriorate further resulting in LOS F by 2035. This alternative does not meet the purpose and need of the project.

1.4.3 Comparison of Alternatives

This environmental document evaluates four alternatives that are being proposed for this project. For this comparison of alternatives, Build Alternatives 1 and 2 should be considered full build, Alternative 3 should be considered a minimal build, and the No-Build would maintain the existing facility.

EL DORADO COUNTY DEPARTMENT OF TRANSPORTATION

Figure 2: Build Alternative 1

US-50/PONDEROSA ROAD INTERCHANGE

DRAWN BY: JRBI	DAVID EVANS AND ASSOCIATES INC. 1544 Eureka Road, Suite 200 Roseville California 95661 Phone: 916.781.9383	JOB NO.	SHEET 1 OF 3
CHECKED BY: JORO		FILE NO. 03-2E5500	
DATE: 9-19-08			
SCALE: 1" = 300'			

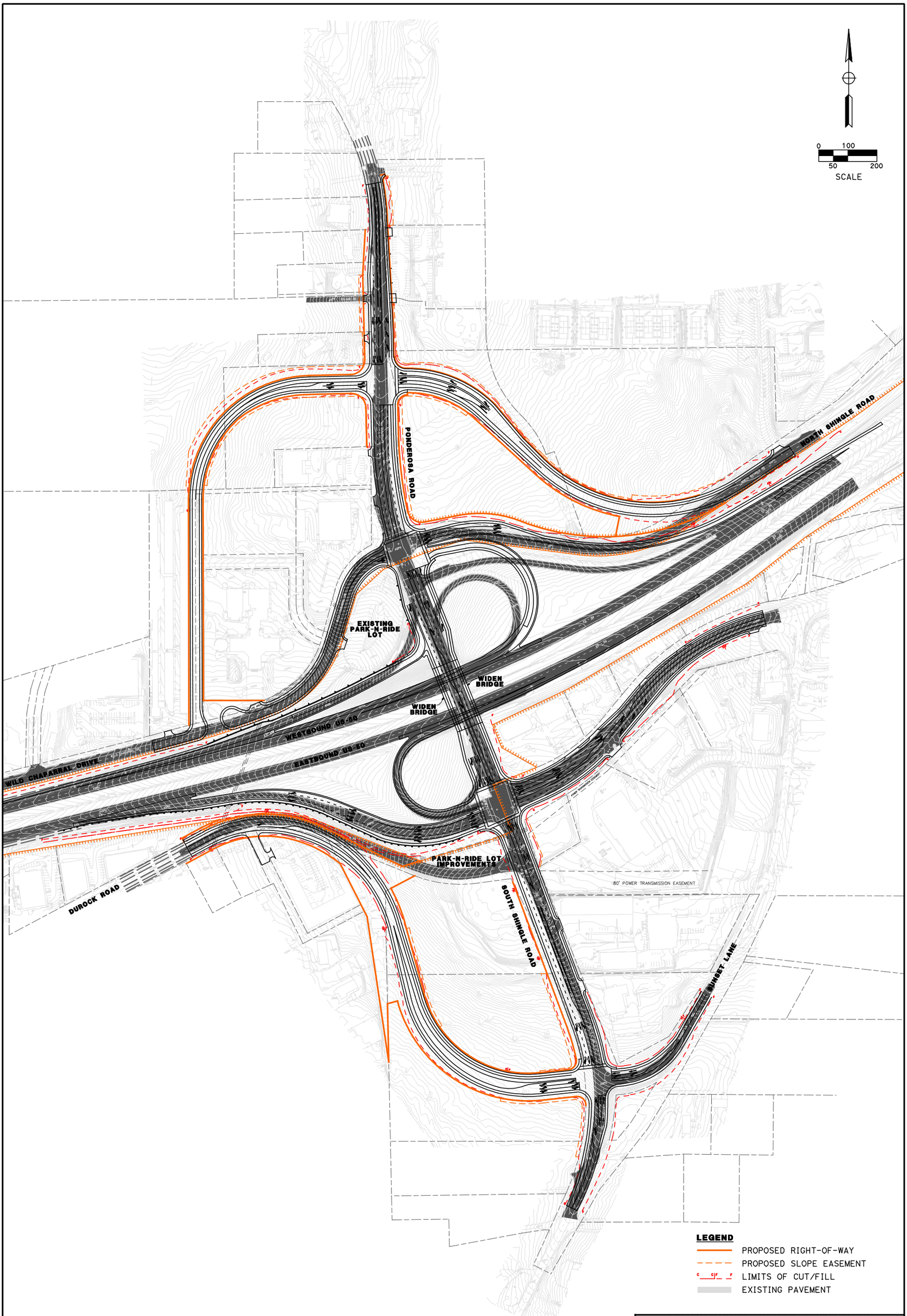

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Figure 3: Build Alternative 2

US-50/PONDEROSA ROAD INTERCHANGE

DRAWN BY: JRBI	DAVID EVANS AND ASSOCIATES INC. 1544 Eureka Road, Suite 200 Roseville California 95661 Phone: 916.781.9383	JOB NO.	SHEET 2 OF 3
CHECKED BY: JORO		FILE NO. 03-2E5500	
DATE: 9-19-08			
SCALE: 1" = 300'			

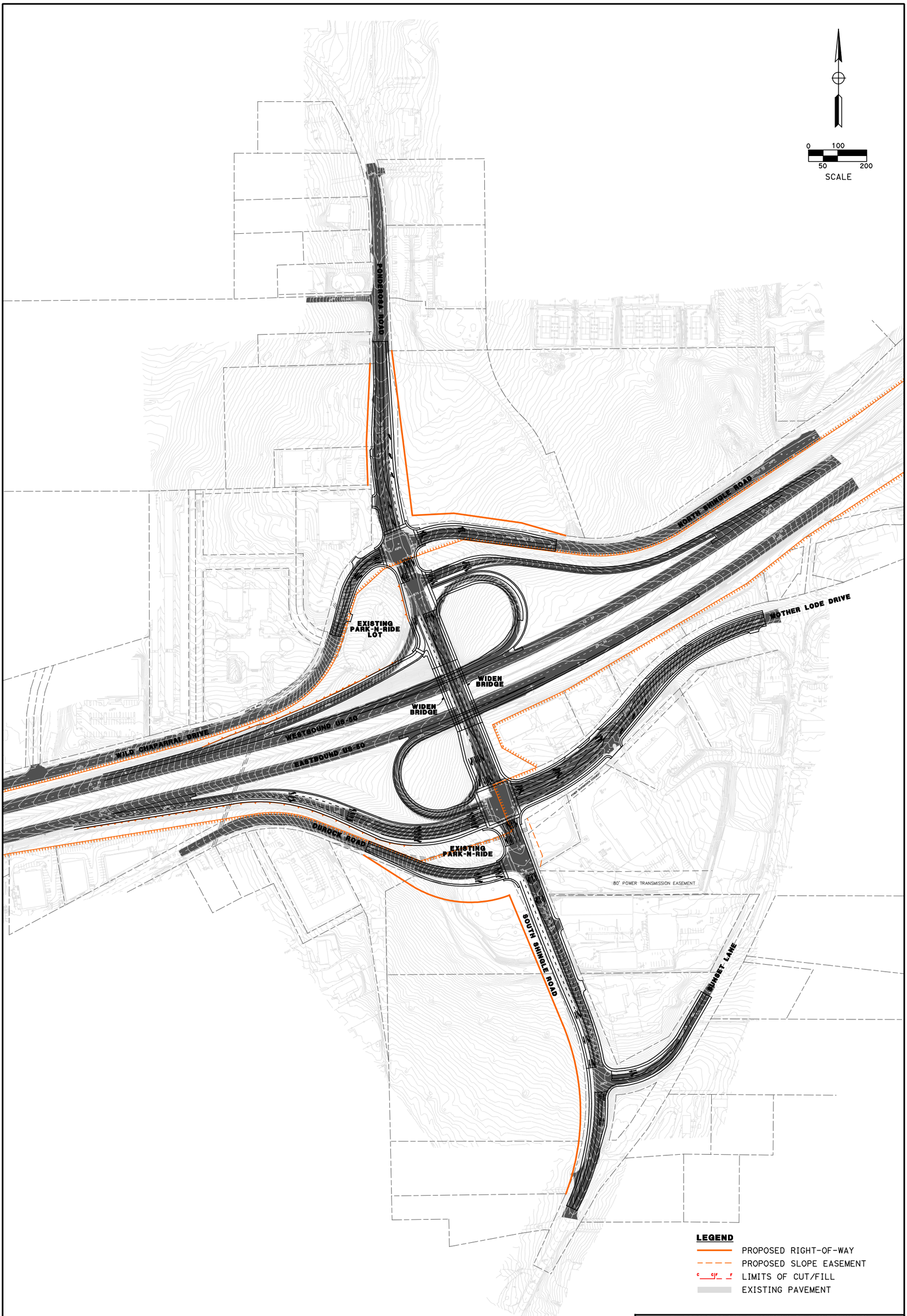

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Figure 4: Build Alternative 3

US-50/PONDEROSA ROAD INTERCHANGE

DRAWN BY: JRBI	DAVID EVANS AND ASSOCIATES INC. 1544 Eureka Road, Suite 200 Roseville California 95661 Phone: 916.781.9383	JOB NO.	SHEET 3 OF 3
CHECKED BY: JORO		FILE NO. 03-2E5500	
DATE: 9-19-08			
SCALE: 1" = 300'			

EL DORADO COUNTY DEPARTMENT OF TRANSPORTATION

Figure 5: No Build Alternative

US-50/PONDEROSA ROAD INTERCHANGE

DRAWN BY: JRBI	DAVID EVANS AND ASSOCIATES INC. 1544 Eureka Road, Suite 200 Roseville California 95661 Phone: 916.781.9383	JOB NO.	SHEET 4
CHECKED BY: JORO			OF 4
DATE: 9-19-08		FILE NO. 03-2E5500	
SCALE: 1" = 300'			

The environmental impacts of the three build alternatives differ primarily in the following areas: Traffic and Transportation, Biological Resources, and Community Character and Cohesion[1]. The alternatives vary in their effects on Community Character and Cohesion primarily in the extent of ROW required and the number and type of parcels affected. A full comparison of potential environmental impacts is included in a table located in the Summary section of this document.

Each build alternative would require a portion of ROW in order to accommodate widening and realignment of the facility. As shown in Table 4 below, Build Alternative 1 is anticipated to require partial acquisition from 31 parcels totaling 5.89 acres and full acquisition from two parcels totaling 1.45 acres. Build Alternative 2 is anticipated to require partial acquisition from 31 parcels totaling 8.05 acres and full acquisition from two parcels totaling 1.45 acres. Build Alternative 3 is anticipated to require partial acquisition from 14 parcels totaling 2.18 acres. The No-Build Alternative would not require any property acquisitions.

Table 4: Right-of-Way Impacts by Alternative

Alternative	Full Take		Partial Take		Total Properties Impacted
	Properties Impacted	Area (ac)	Properties Impacted	Area (ac)	
1	2	1.45	31	5.89	33
2	2	1.45	31	8.05	33
3	0	0	14	2.18	14

Each of the build alternatives would require one full residential property acquisition; however, that parcel (APN 090-440-24) is currently vacant and would not necessitate any residential relocation. Build Alternatives 1 and 2 would likely require full acquisition of a commercial property, APN 109-040-40, located in the southwest quadrant of the intersection. This acquisition would necessitate relocation of the business located on that property. Community impacts and relocations are discussed further in Section 2.1.3.

When considering Traffic and Transportation, Build Alternatives 1 and 2 are very similar. They both would substantially improve existing and future LOS on the interchange as well as the six intersections analyzed in the project area. Build Alternatives 1 and 2 would widen the overpass to provide additional vehicular capacity as well as improve the pedestrian and bicycle facilities. Further, the improvement in LOS through 2035 would decrease congestion and would improve local and regional air quality. Build Alternative 3 would also widen the overpass and improve pedestrian and bicycle facilities, but would only marginally improve existing and future LOS in the project area. Four of the six intersections would operate at unacceptable levels, pursuant to El Dorado County General Plan Policy, in the 2035 design year. The No-Build alternative would not improve any of the existing facilities, four of the six intersections would operate at an

[1] Community Character and Cohesion is being analyzed under NEPA; it is not an impact that must be analyzed under CEQA, although separately it can overlap with impacts to land use, to consistency with regulatory plans, and to population and housing.

unacceptable LOS, and would be inconsistent with several general plan policies. Traffic and transportation is discussed further in Section 2.1.5.

Direct impacts to biological resources as a result of this project would include the removal of oak woodlands and impacts to a small population of Layne's butterweed, a Federally Threatened plant species protected by the Endangered Species Act. All three Build Alternatives would result in impacts to Layne's butterweed (approximately 0.01 acre). Build Alternative 1 would potentially impact 4.58 acres of oak woodlands, Build Alternative 2 would potentially impact 5.05 acres of oak woodlands, Build Alternative 3 would potentially impact 1.50 acres of oak woodlands, and the No-Build Alternative would not require the removal of any oak woodlands. Biology is discussed further in Section 2.3.

1.4.4 Identification of a Preferred Alternative

After the public circulation period, all comments will be considered, and the County will select a preferred alternative and make the final determination of the project's effect on the environment. In accordance with CEQA, if no immitigable significant adverse impacts are identified, the County will prepare a Mitigated Negative Declaration. Similarly, if Caltrans determines the action does not significantly impact the environment, Caltrans, as assigned by FHWA, will issue a Finding of No Significant Impact (FONSI) in accordance with NEPA.

1.4.5 Alternatives Considered But Eliminated From Further Discussion

The following alternatives were considered but eliminated from further study. In summary, there were access and geometric deficiencies with these additional build alternatives that would result in circuitous travel, insufficient spacing, and traffic movements that are considered inconsistent with current design standards. Moreover, during public workshops, there were several objections expressed by the public about pursuing these build options.

1.4.5.1 Alternative 2 Variation

This design alternative is similar to Build Alternative 2. Durock Road is realigned only 350 feet south to a point approximately midway between the U.S. 50 eastbound off-ramp intersection and Sunset Lane, opposite an existing commercial driveway. Based on the traffic operations analysis (cf. Fehr and Peers 2009), there would be insufficient spacing between the eastbound off-ramp and Sunset Lane intersections to provide for the required vehicle storage for left turn movements. In addition, there are adverse (steep) grades in the vicinity of this midpoint intersection, and it does not comply with Caltrans minimum local road spacing requirements from the next major intersection.

1.4.5.2 Alternative 3 Variation

This design alternative is similar to Build Alternative 3 but would include the following differences. Instead of providing the cul-de-sac access road off of Ponderosa Road with a cul-de-sac at the eastern terminus, the cul-de-sac access road would intersect with Wild Chaparral Drive with the cul-de-sac at the western terminus. Several deficiencies were addressed by the PDT including reduced access for auto dealership patrons and commuters using El Dorado

County's Transit Authority (EDCTA) bus service. These concerns were also echoed by the public during public workshop forums.

1.5 Project Phasing

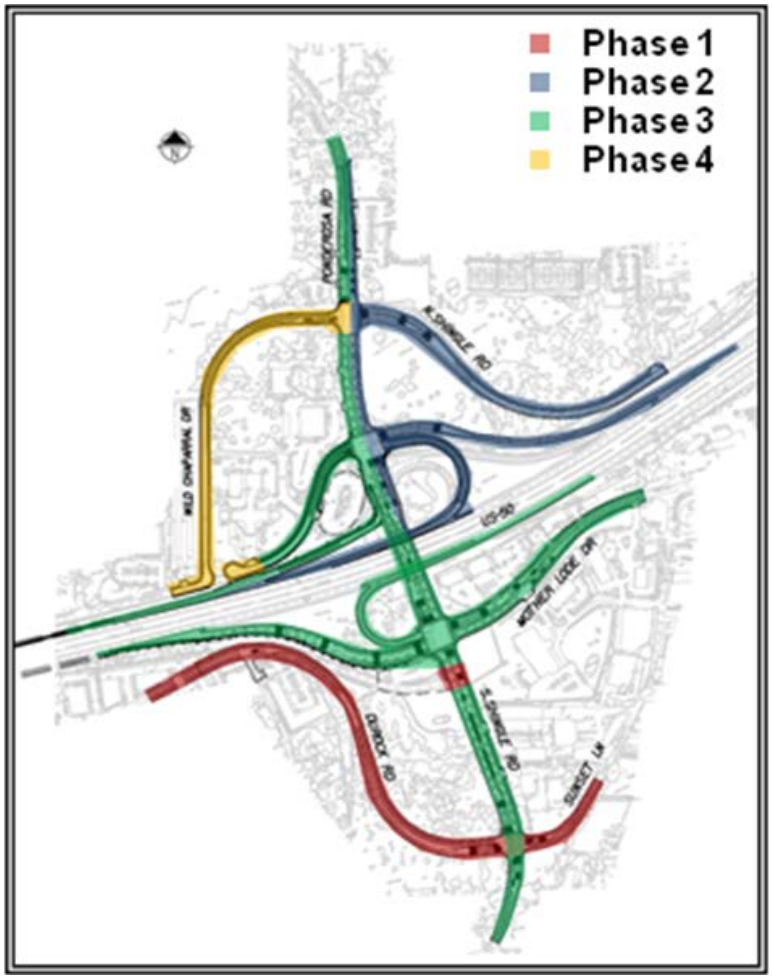
Due to limited transportation funding, Alternatives 1 and 2 are proposed to be constructed in phases as identified in the most recent El Dorado County Capital Improvement Program (CIP). The proposed phasing by alternative is shown in Table 5 and multi-colored graphic shown below. The goal of this phasing plan is to gain the best cost-to-operational and safety benefit ratio, while taking advantage of development in the vacant properties adjacent to the SW and NE interchange quadrants. Timing and developer funding will also play a role in the proposed phasing and funding of the phased improvements. Since development schedules and funding is somewhat uncertain at this time, an operational analysis of the phased improvements would be subject to change depending upon future development and funding. Consequently, the PDT decided to postpone performing an operational analysis of the phased improvements until the start of PS&E for the first phase.

The primary operational benefits of Alternatives 1 and 2 come from elimination of the closely spaced intersections and roadway widening. Since widening has the highest cost, the phasing plan focuses first on eliminating the closely spaced intersections at South Shingle Springs Springs/Durock and Ponderosa/North Shingle intersections because removal of these two intersections provides the highest cost to benefit ratio as shown in Table 5.

Table 5: Construction Phasing Plan

	Alternative 1	Alternative 2
Phase 1[1]	Realign Durock Rd. Remove existing South Shingle Springs Springs/Durock intersection. May reconstruct South Shingle Springs park and ride lot to mitigate removal of North Shingle lot during Phase2.	Realign Durock Rd. Remove existing South Shingle Springs Springs/Durock intersection. May reconstruct South Shingle Springs park and ride lot to mitigate removal of North Shingle lot during Phase2.
Phase 2	Realign North Shingle Springs Rd. Construct WB off-ramp and WB loop on-ramp. Remove WB off-ramp/Ponderosa intersection. Remove North Shingle park and ride lot.	Realign North Shingle Springs Rd. Construct WB off-ramp and WB loop on-ramp. Remove WB off-ramp/Ponderosa intersection. Remove North Shingle park and ride lot.
Phase 3	Widen overcrossing and construct the remainder of ramp improvements, reconstruct park and ride lots	Widen overcrossing and construct the remainder or ramp improvements, reconstruct park and ride lots
Phase 4[2]	N/A	Realign Wild Chaparral Dr. Cul-de-sac existing Wild Chaparral Dr.

(1) The North Shingle park and ride lot would be removed and the lost parking spaces would not be mitigated until the EB off-ramp is reconstructed in phase 3.
(2) Alternative 2: Applies only if Alternative 2 is chosen as the preferred alternative.



Proposed Project Phasing

1.6 Permits and Approvals Needed

The following permits, reviews, and approvals would be required for project construction:

Table 6: Permits and Approvals

Agency	Permit/Approval
United States Fish and Wildlife Service	Section 7 Consultation for Threatened and Endangered Species
State Water Resources Control Board	Section 402 National Pollution Discharge Elimination System General Construction Permit will be required

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

This chapter explains the impacts that the proposed project will have on the human, physical, and biological environments in the project area. It describes the existing environment that could be affected by the project, potential impacts from each of the alternatives, and proposed avoidance, minimization, and/or mitigation measures pursuant to CEQA and NEPA requirements. A CEQA checklist, which evaluates the level of impacts under each environmental resource, is included under Appendix A.

As part of the scoping and environmental analysis conducted for the project, the following environmental issues were considered but no adverse impacts were identified. Consequently, there is no further discussion regarding 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 it is not anticipated to have any effects on coastal resources.

Wild and Scenic Rivers – The project will 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 maintains four recreational park locations in the project vicinity. Bradford Park is the closest park to the project area, located at 4224 Mother Lode Drive and 0.6 miles away; however, none of the proposed alternatives would have any impact on county park land.

2.1 Human Environment

2.1.1 Land Use

A *Community Impact Assessment* for the U.S. 50/Ponderosa Interchange Project was prepared for this project in February of 2009 and the following is a summary of the findings made in that study.

2.1.1.1 Existing and Future Land Uses

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 and South Shingle Springs roads, but the majority of commercial and residential development in the project area did not occur until the 1980s. Over the past 30 years, El Dorado County has experienced population growth and is

projected to grow by 30,000 households over the next 20 years (El Dorado County 2004) and 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. Land uses on properties surrounding the interchange include commercial (car dealerships, equipment rental, restaurants, services station, office buildings), medium density residential (single family dwellings), industrial (fire station, churches and day care facilities), recreational (In Shape Health Club) and open space. Additionally, the northwest, northeast and southwest quadrants of the project contain Park and Ride lots. Figure 6 shows the El Dorado County General Plan Land Use Designations for properties in the vicinity of the interchange and Figure 7 shows the location of parcels by Assessor's Parcel Number.

Future Land Use

The northeast (APN 070-270-29 and 070-270-20) and southwest (APN 109-080-01 and 109-080-02) quadrants of the project are predominately undeveloped. There is one parcel (APN 070-250-70) in the northwest quadrant with vacant land. These areas within the project limits have potential for future development. Table 7 lists current projects that are planned within the project area.

Table 7: 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 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. 50 and Cameron Park Drive.	Project Planning/ Alternatives Development
Mixed Use Development	El Dorado County	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	El Dorado County	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	El Dorado County	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	El Dorado County	Tentative subdivision to create 5 lots ranging from 1.0 to 1.07.	Tentative Map Extension approved.

Project/Activity	Jurisdiction	Project/Action Summary	Status
Residential Development	El Dorado County	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

Regional Transportation Plans

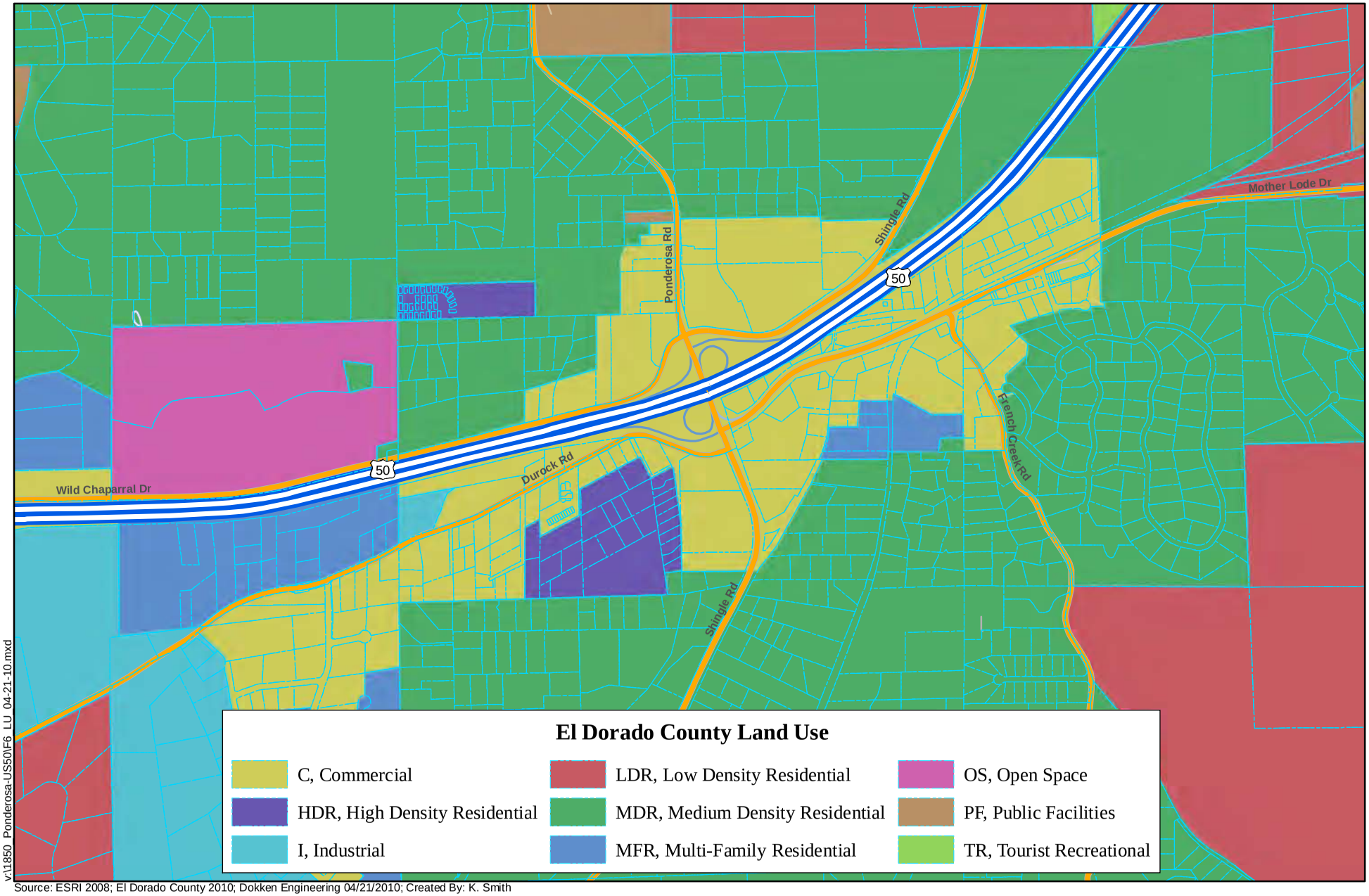
El Dorado County Department of Transportation uses an annually updated Ten-Year CIP. The CIP includes short-range and long-range capital improvement plans. The U.S. 50/Ponderosa Road/South Shingle Springs Road Interchange Project is consistent with the El Dorado County Regional Transportation Plan and is listed under CIP Project Nos. 71333, 71338, and 71339. The project is also consistent with the El Dorado County Bicycle Transportation Plan as each build alternative would implement the pedestrian and bicycle facilities identified in that plan in the project location. A record of this project's inclusion in the CIP has been included under Appendix E.

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 in 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 listed in the 2016 SACOG MTP/SCS and a record of this inclusion has been provided under Appendix E.

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.

Table 8 lists El Dorado County General Plan goals and policies relevant to the proposed project and provides a discussion of consistency with each goal or policy. The ultimate determination of consistency with local general plan goals and policies lies with the El Dorado County Board of Supervisors. Consistency discussions apply to all build alternatives and the no-build alternative.



Source: ESRI 2008; El Dorado County 2010; Dokken Engineering 04/21/2010; Created By: K. Smith

Parcel Boundaries/Right-of-Way

0 0.5 Miles

FIGURE 6

GENERAL PLAN LAND USE DESIGNATIONS

U.S. 50/Ponderosa Interchange Improvements Project
District 3-Eld-50 (PM 8.3/8.7)
Federal Project # EA 03-2E550
El Dorado County, California

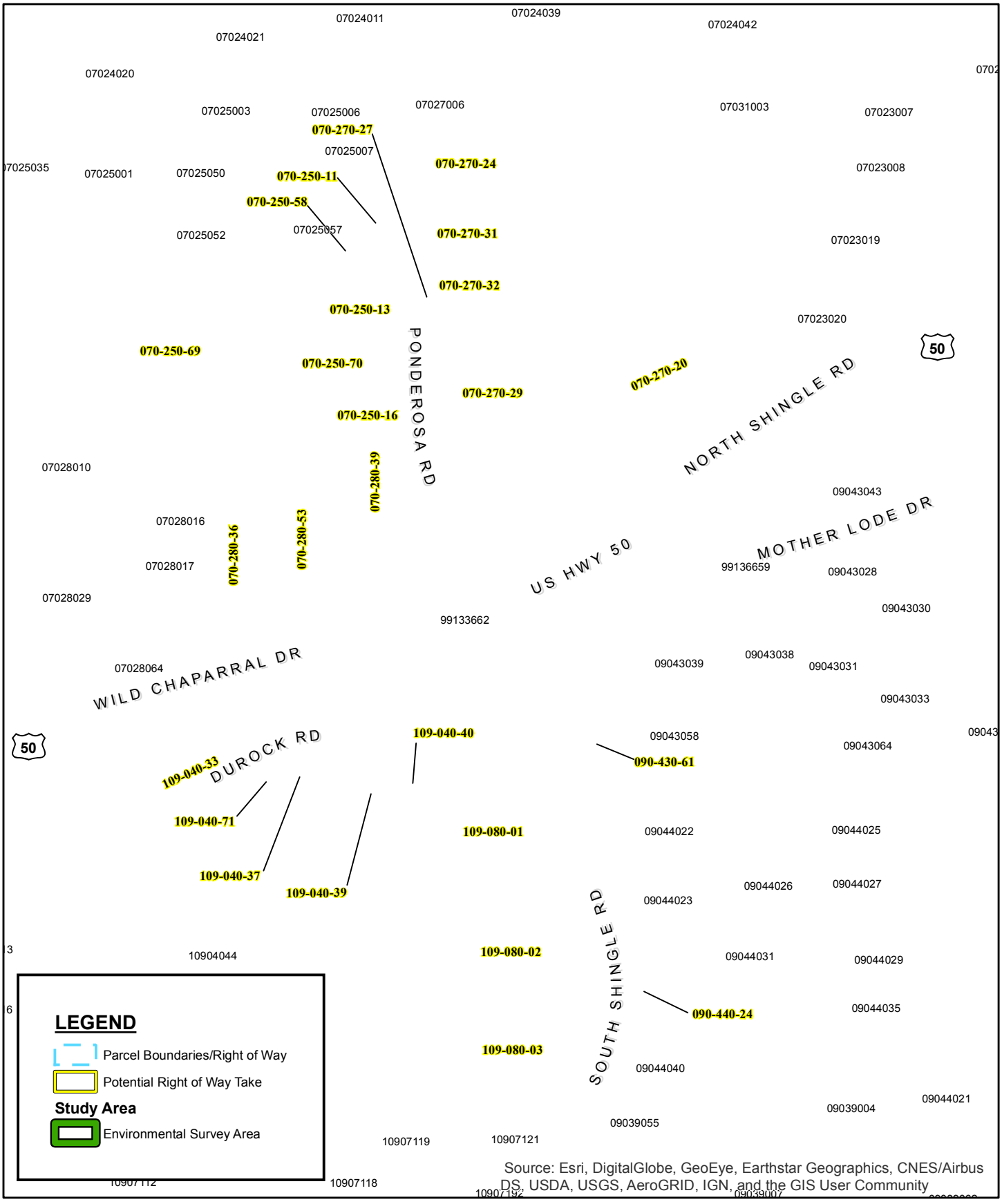


FIGURE 7
ASSESSOR'S PARCEL NUMBERS
U.S. 50/Ponderosa Interchange Improvements Project
District 3-Eld-50 (PM 8.3/8.7)
Federal Project # EA 03-2E550
El Dorado County, California

Table 8: 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 countywide 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 crashes; 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 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's 10-year CIP program. Full air, noise and water quality technical studies have been prepared for this project. All impacts for these resources can be mitigated to less than significant levels. **Build Alternatives 1 and 2:** Consistent. The proposed project is a roadway improvement project. The project proposes to improve existing traffic operational deficiencies by increasing storage distances between intersections, adding turn pockets and improving the interchange configuration. Both alternatives would maintain LOS D or better at all intersections within the project. **Build Alternative 3:** Partially Consistent. Would improve the interchange with minimal impacts to right-of-way; however, results in unacceptable LOS at four of the six study intersections during either the AM or PM peak hour traffic. **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'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. Policy TC-3a: The County shall support all standards and regulations adopted by the El Dorado County Air Quality Management District governing transportation control measures and applicable state and federal standards.	**Build Alternatives 1, 2, and 3:** Consistent. An air quality technical study was prepared for this project. The project was analyzed for regional and state conformity and it was shown that all impacts to air quality can be mitigated to a less than significant level. **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, Objective, or Policy	Consistency Discussion
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 shall implement a system of recreational, commuter, and inter-community bicycle routes in accordance with the County's *Bicycle Transportation 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 Alternatives 1, 2, and 3:** 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 will be consistent with the El Dorado County Bicycle Transportation Plan. Additionally, the project will square up 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.	**Build Alternatives 1, 2, and 3:** Consistent. Sidewalk would be added along all roads within in the project area. The project will square up interchange ramps to provide for 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 County roads. Policy TC-Xd: Level of Service (LOS) for 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 capacity ratio of the roadway segments listed in Table TC-2 shall not exceed the ratio specified in that table. Level of Service will 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.	**Build Alternatives 1 and 2:** Consistent. The proposed project is a roadway improvement project. The project proposes to improve existing traffic operational deficiencies by increasing storage distances between intersections, adding turn pockets and improving the interchange configuration. Both alternatives would maintain LOS D or better at all intersections within the project. **Build Alternative 3:** Not Consistent. This alternative would improve the interchange with minimal impacts to right-of-way; however, it would result in unacceptable LOS at four of the six study intersections during either the AM or PM peak hour traffic. **No-Build Alternative:** Not Consistent. Would not improve the intersection and would not improve existing and future LOS in the project area.

Goal, Objective, or Policy	Consistency Discussion
Conservation and Open Space Element	
OBJECTIVE 7.4.1: PINE HILL RARE PLANT SPECIES The County shall protect Pine hill rare plan species species and their habitat consistent with Federal and State laws. Policy 7.4.1.1 The County 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 Code Chapter 130.71 and the USFWS's *Gabbro Soil Plants for the Central Sierra Nevada Foothills Recovery Plan* (USFWS 2002).	**Build Alternatives 1, 2, and 3:** Consistent. The permanent loss of 0.01 acres of Layne's butterweed would occur under all alternatives. Compensatory mitigation is required and will be implemented to offset this loss. **No-Build Alternative:** Consistent. No changes to the project intersection or associated roadways would occur and no protected plant species would be impacted.
OBJECTIVE 7.4.4: FOREST, OAK WOODLAND, AND TREE RESOURCES Protect and conserve forest, oak woodland, and tree resources for their wildlife habitat, recreation, water production, domestic livestock grazing, production of a sustainable flow of wood products, and aesthetic values. Policy 7.4.4.4 For all new development projects or actions that result in impacts to oak woodlands and/or individual native oak trees, including Heritage Trees, the County shall require mitigation as outlined in the El Dorado County Oak Resources Management Plan (ORMP). The ORMP functions as the oak resources component of the County's biological resources mitigation program, identified in Policy 7.4.2.8.	**Build Alternatives 1, 2, and 3:** Consistent. Build Alternatives 1, 2, and 3 would result in impacts to 4.58, 5.05, and 1.50 acres of oak woodland respectively in the project area. Impacts to oak woodlands would be mitigated by payment into the County's Oak Woodland Conservation Fund as outlined in the ORMP. **No-Build Alternative:** Consistent. No changes to the project intersection or associated roadways would occur and no oak woodland would be impacted.

2.1.1.2 Parking

Currently there are three park and ride facilities in the project area, located in the northwest, northeast, and southwest quadrants. The northwest lot has 113 spaces, the northeast lot has 28 spaces, and the southwest lot has 60 spaces. Under Build Alternatives 1 and 2, 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 will result in a loss of 28 parking spaces. Replacement spaces have been incorporated into the project design by adding 28 spaces to the park and ride lot in the southwest quadrant. As a result, Build Alternatives 1 and 2 would not reduce the number of park and ride parking spaces in the project area.

Under Build Alternative 3 and the No Build Alternative, park and ride facilities would not be impacted.

2.1.2 Growth

Regulatory Setting

The Council on Environmental Quality (CEQ) regulations, which established the steps necessary to comply with the National Environmental Policy Act (NEPA) of 1969, requires evaluation of the potential environmental effects of all proposed federal activities and programs. This provision includes a requirement to examine indirect consequences, which may occur in areas beyond the immediate influence of a proposed action and at some time in the future. The CEQ regulations (40 Code of Federal Regulations [CFR] 1508.8) refer to these consequences as indirect impacts. Indirect impacts may include changes in land use, economic vitality, and population density, which are all elements of growth.

The California Environmental Quality Act (CEQA) also requires the analysis of a project's potential to induce growth. The CEQA guidelines (Section 15126.2[d]) require that environmental documents "…discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment…"

Affected Environment

Growth was analyzed as part of the *Community Impact Assessment for the U.S. 50/Ponderosa Interchange Project* (PAR 2009).

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 Community Impact Assessment 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

Between 2000 and 2016, the state of California grew by by over 5.5 million persons for an overall growth rate of approximately 15% (California Department of Finance 2016). El Dorado County's population has grown to 183,140 which is an approximate 18% increase from the County's population estimate in 2000.Growth in the El Dorado County outpaces growth in greater California. Future planned growth in El Dorado County is expected to continue at a similar rate and grow by 30,000 households between 2015 – 2035 according to the County's General Plan.

<u>How, if at all, does the proposed Project potentially change accessibility?</u>

Each of the build alternatives would improve an existing deficient interchange on U.S. 50. Though the build alternatives do include the potential for moving existing routes, no new routes are proposed and accessibility would not be affected as a result of this project.

How, if at all, do the project type, project location, and growth-pressure potentially influence growth? Is project-related growth reasonably foreseeable as defined by NEPA?

One of the purposes of the proposed project is to provide for future traffic growth at this interchange, projected to occur from planned regional 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 defined by the 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 growth inducing effects of the project would be consistent with General Plan policies.

Construction Impacts

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

2.1.3 Community Impacts

2.1.3.1 Community Character and Cohesion

Regulatory Setting

The National Environmental Policy Act of 1969 (NEPA), as amended, established that the federal government use all practicable means to ensure that all Americans have safe, healthful, productive, and aesthetically and culturally pleasing surroundings (42 United States Code [USC] 4331[b][2]). The Federal Highway Administration in its implementation of NEPA (23 United States Code [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.

Under the California Environmental Quality Act (CEQA), an economic or social change by itself is not to be considered a significant effect on the environment. However, if a social or economic change is related to a physical change, then social or economic change may be considered in determining whether the physical change is significant. Since this project would result in physical change to the environment, it is appropriate to consider changes to community character and cohesion in assessing the significance of the project's effects.

Affected Environment

Community Impacts have been analyzed as part of the *Community Impact Assessment for the U.S. 50/Ponderosa Interchange Project* (PAR 2009); refer to that report for detailed data regarding demographics and community impacts.

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 development. The existing interchange area land uses include commercial (car dealerships, equipment rental, restaurants, services station, office buildings), medium residential (single-family dwellings), industrial (fire station, churches and daycare facilities) recreational (In Shape Health Club) and open space. 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.

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 (Caltrans 1997).

Information on community character and cohesion was obtained from field observations. The 2010 United States Census was examined at the County, Census Tract and Census Tract Block Group[2] levels. Census geography areas for the project are shown in Figure 8. Data from the adjacent Census Tract Block Groups were used to describe household composition, age, ethnicity and economic conditions of the populations in the project corridor and the surrounding area.

Within the project study area, the average household size is 2.67 persons, slightly higher than in the county as a whole. Additionally, tenure, or home ownership, in the study area is a higher percentage than the county.

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[2] **Census tract**

A small, relatively permanent statistical subdivision of a county delineated by local committee of census data users for the purposes of presenting data. Census tract boundaries normally follow visible feature, but may follow governmental unit boundaries and other non-visible features in some instances; they always nest within counties. Designated to be relatively homogeneous units with respect to population characteristics, economic status and living conditions at the time of establishment, census tracts average about 4,000 inhabitants. They may be split by any sub-county geographic entity.

Block group

A subdivision of a census tract (or, prior to 2000, a block numbering area), a block group is the smallest geographic unit for which the Census Bureau tabulates sample data. A block group consists of all the blacks within the census tract with the same beginning number.

Block

A subdivision of census tract (or, prior to 2000, a block numbering area), a block is the smallest geographical unit for which the Census Bureau tabulates 100-percent data. Many blacks correspond to individual city blocks bounded by streets, but blacks (especially in rural areas) man include man square miles and may have some boundaries that are not streets. The Census Bureau established blocks covering the entire nation for the first time in 1990. Previous censuses back to 1940 had blocks established only for part of the nation. Over 8 million blocks are identified for Census 2010.

According to the 2010 U.S. Census, the study area consists of a population primarily of white ethnicities, representing approximately 90 percent of the total population. Average age in the study area is 44.6 years, which is slightly higher than the county average.

Users of the U.S. 50/Ponderosa Road/South Shingle Springs 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.

Environmental Consequences

Permanent Impacts

Each of the three build alternatives would implement the El Dorado General Plan goals and principles. The proposed improvements would relieve existing and future congestion at the

interchange. Additionally bicycle and pedestrian movement and safety would be improved by the inclusion of sidewalks, bicycle lanes and the squaring up of interchange on- and off-ramps.

Alternative 1 and 2

Since the project would improve an existing transportation facility it would not cause any physical divisions of the community and would not result in isolation or separation of existing residences from businesses and community facilities. The major permanent impact would be from the required ROW acquisitions needed under Alternatives 1 and 2; however, due to the relatively small number of full acquisitions needed and the correspondingly small number of relocations, this impact would not be considered substantial in terms of community character and cohesion. The relocation process is described in Section 2.1.3.2. Alternative 1 and 2 may require a full acquisition of two parcels. One of the lots is vacant and the other is a commercial storage facility.

Alternative 3

Alternative 3 would have similarly minor impacts to community character and cohesion as compared to Alternatives 1 and 2. The most important difference is that Alternative 3 would require less parcel acquisition and may necessitate the full acquisition of only one vacant residential parcel. A complete list of the required acquisition is included in Section 2.1.3.2 below under Tables 9, 10, and 11.

No-Build Alternative

Under the No-Build Alternative, community character and cohesion 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

Alternative 1, 2, and 3

Under each of the build alternatives, temporary or construction related impacts are anticipated. Construction noise from machinery may be present but will be limited to daytime hours and decibel levels (Section 2.2.7). Construction activities would result in temporary disruption of connectivity by requiring detours for pedestrians, bicyclists and potentially motorists. No major lane closures are anticipated. Through lanes will be maintained where possible and appropriate detour routes will be made available when necessary. Access to all businesses, schools, and residences will be maintained. Some delays on these road sections may occur due to construction. These impacts would be temporary and are not considered significant, with the implementation of standard traffic management measures.

No-Build Alternative

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

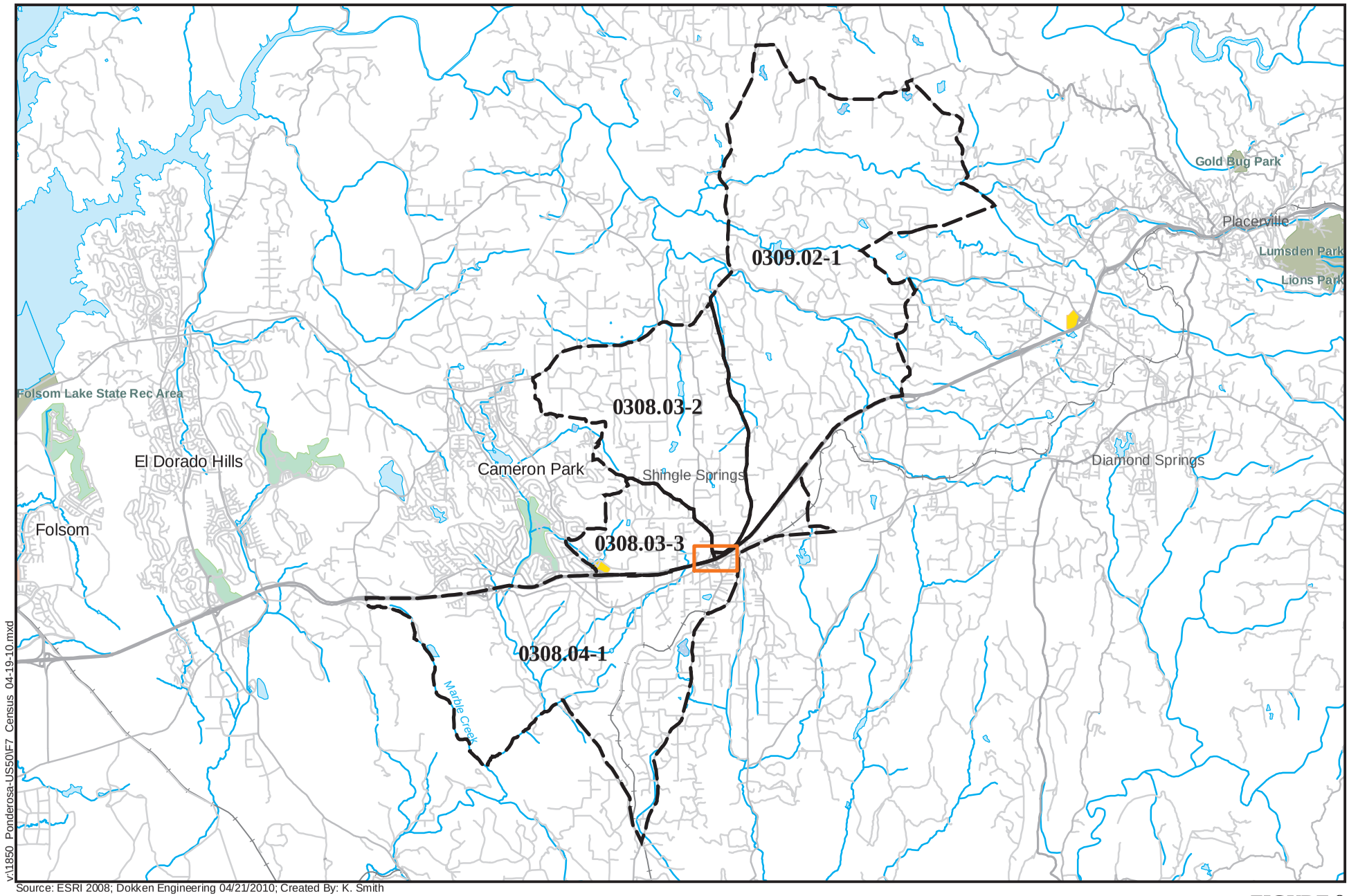

FIGURE 8
CENSUS TRACTS
U.S. 50/Ponderosa Interchange Improvements Project
District 3-Eld-50 (PM 8.3/8.7)
Federal Project # EA 03-2E550
El Dorado County, California

Avoidance, Minimization and /or Mitigation Measures

Measures described below will ensure that there is no adverse impact on community character and cohesion during construction of the project.

Measure CCC-1: Prior to the start of construction, the County shall 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. These efforts will be paired with the Traffic Management Plan which would reduce temporary construction impacts to users of the transportation facility.

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

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.

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.

2.1.3.2 Relocations and Real Property Acquisition

Right of way acquisitions, which may be required for the proposed project, are summarized in Tables 9, 10, and 11.

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) and Title 49 Code of Federal Regulations (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 will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole. Please see Appendix D for a summary of the RAP.

All relocation services and benefits are administered without regard to race, color, national origin, or sex in compliance with Title VI of the Civil Rights Act (42 United States Code [USC] 2000d, et seq.). Please see Appendix C for a copy of Caltran's Title VI Policy Statement.

Affected Environment

After completion of the Community Impact Assessment for in February of 2009, a Relocation Impact Study was prepared in April of 2009 to address potential impacts caused by partial and full acquisitions of properties in the project area. This study identified that the interchange improvement project would not displace housing.

Environmental Consequences

Build Alternative 1

Frontage acquisition and partial takes of land would be required along Durock Road, Mother Lode Drive, Ponderosa Road and South Shingle Springs Road. A total of 31 parcels may be impacted by partial ROW acquisition. These partial acquisitions would not constitute a substantial alteration to the commercial development, communities, or existing neighborhoods.

Build Alternative 1 may require the full acquisition of an undeveloped residential parcel (APN 090-440-24). Since the property is currently undeveloped, no residents would be displaced. Build Alternative 1 may also require the full acquisition of one commercial property (APN 109-040-40) which would require relocation assistance. All property transactions must comply with the Real Property Acquisition Policies Act.

Build Alternative 2

Frontage acquisition and partial takes of land would be required along Durock Road, Mother Lode Drive, Ponderosa Road and South Shingle Springs Road for ROW improvements. A total of 31 parcels may be impacted by partial ROW acquisition. These partial acquisitions would not constitute a substantial alteration to the commercial development, communities, or existing neighborhoods.

Build Alternative 2 may require the full acquisition of an undeveloped residential parcel (APN 090-440-24). Since the property is currently undeveloped, no residents would be displaced. Build Alternative 2 may also require the full acquisition of one commercial property (APN 109-040-40) which would require relocation assistance. All property transactions must comply with the Real Property Acquisition Policies Act.

Build Alternative 3

Frontage acquisition and partial takes of land would be required along Durock Road, Mother Lode Drive, Ponderosa Road and South Shingle Springs Road for ROW improvements. A total of 14 parcels may be impacted by partial ROW acquisition. These partial acquisitions would not constitute a substantial alteration to the commercial development, communities, or existing neighborhoods.

Table 9: Preliminary Right-of-Way Impacts by Alternative

Alternative	Full Take		Partial Take		Total Properties Impacted
	Properties Impacted	Area (ac)	Properties Impacted	Area (ac)	
1	2	1.45	31	5.89	33
2	2	1.45	31	8.05	33
3	0	0	14	2.18	14

Table 10: Preliminary Residential Property Right-of-Way Acquisition

APN	Type of Property	Type of Acquisition	Total ROW Acquisition (square feet)
Alternative 1			
070-250-05	Residential - Vacant Land	Partial	4,398
070-250-07	Residential - Single Family	TCE	0
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 - Vacant Land	Full	13,068
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
Alternative 2			
070-250-05	Residential - Vacant Land	Partial	17,152
070-250-07	Residential - Single Family	TCE	0
070-250-11	Residential - Improved Multi-Residential	Partial	2,112
070-250-15	Residential - Vacant Land	Partial	41,996
070-270-20	Residential - Vacant Land	Partial	30,675
070-270-24	Residential - Single Family	Partial	835
090-440-24	Residential - Vacant Land	Full	13,068
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
Alternative 3			
070-250-15	Residential - Vacant Land	Partial	7,293
090-440-24	Residential - Vacant Land	Full	13,068
109-080-02	Residential - Vacant Land	Partial	15,680
109-080-03	Residential - Improved Rural Residential	Partial	1,119

Source: David Evans and Associates 2009

Table 11: Preliminary Non-Residential Property Right-of-Way Acquisition

APN	Type of Property	Type of Acquisition	Total ROW Acquisition (square feet)
Alternative 1			
070-250-08	Shingle Springs Fire Department	TCE	0
070-250-13	Commercial - Childcare Center	Partial	3,759
070-250-16	Commercial - Office	TCE	0
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
070-280-36	Commercial - Mini Storage	TCE	0
070-280-39	Commercial - Car Dealership	TCE	0
070-280-53	Commercial - Car Dealership	TCE	0
070-280-64	Improved Recreational	TCE	0
090-430-38	Commercial - Retail Store	TCE	0
090-430-39	Commercial - Retail Store	TCE	0
090-430-42	Commercial - Vacant Land	Slope Easement	0
090-430-45	Commercial - Retail Store	TCE	0
090-440-22	Commercial - Retail Store	TCE	0
090-440-23	Commercial - Retail Store	TCE	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	Full	50,094
109-040-71	Industrial - Improved Industrial Property	Partial	790
109-080-01	Commercial - Vacant Land	Partial	25,104
Alternative 2			
070-250-08	Shingle Springs Fire Department	TCE	0
070-250-13	Commercial - Child Care Center	Partial	3,759
070-250-16	Commercial - Office	TCE	0
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
070-280-36	Commercial - Mini Storage	Partial	19,011
070-280-39	Commercial - Car Dealership	TCE	0
070-280-53	Commercial - Car Dealership	Partial	29,813
090-430-38	Commercial - Retail Store	TCE	0
090-430-39	Commercial - Retail Store	TCE	0
090-430-42	Commercial - Vacant Land	Slope Easement	0
090-430-45	Commercial - Retail Store	TCE	0
090-440-22	Commercial - Retail Store	TCE	0

APN	Type of Property	Type of Acquisition	Total ROW Acquisition (square feet)
090-440-23	Commercial - Retail Store	TCE	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	Full	50,094
109-040-71	Industrial - Improved Industrial Property	Partial	790
109-080-01	Commercial - Vacant Land	Partial	25,104
Alternative 3			
070-250-16	Commercial - Office	Partial	1,718
070-270-29	Commercial - Vacant Land	Partial	21,995
090-430-38	Commercial - Retail Store	TCE	0
090-430-39	Commercial - Retail Store	TCE	0
090-430-42	Commercial - Vacant Land	Slope Easement	0
090-430-45	Commercial - Retail Store	TCE	0
090-440-22	Commercial - Retail Store	TCE	0
090-440-23	Commercial - Retail Store	TCE	0
109-040-40	Commercial - Improved commercial	Partial	2,844
109-080-01	Commercial - Vacant Land	Partial	31,075

Source: David Evans and Associates 2009

No-Build Alternative

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

Temporary Impacts

Businesses being displaced (under Build Alternatives 1 and 2) would be relocated prior to construction; consequently these businesses would not experience construction-related impacts.

Avoidance, Minimization and/or Mitigation Measures

El Dorado County, as the project proponent, would provide relocation advisory assistance to any person, business, farm or non-profit organization displaced in compliance with Caltrans Relocation Assistance Program the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, and all applicable federal, state, and local regulations. County officials would assist non-residential displaces by providing information on comparable properties for lease or purchase.

Availability of non-residential properties changes according to a variety of factors, including the market consideration, general economic conditions and new construction activity. The description of conditions provided here is based on research conducted within 2 miles of the project site in February 2017.

Table 12 shows the availability of non-residential properties available for sale or lease within 2 miles of the proposed project in El Dorado County. In general, the supply of available properties at the time of the survey appears to be adequate.

Table 12: Available Properties in El Dorado County

Impact	Properties Available During February 2017
	Number of Units
Available non-residential properties for sale	8
Available non-residential properties for rent/lease	3

Source: www.loopnet.com

Measure RLC-1: Property owners shall be compensated in accordance with fair market values based on appraisals. Business owners shall be compensated based on an assessment of the values of the business and any loss of good will.

Measure RLC-2: All efforts would be made to identify relocation opportunities for affected businesses that would reduce the loss of good will and historic patronage. Wherever feasible, assistance would be made available in identifying suitable relocation sites within the service area of existing businesses.

2.1.3.3 Environmental Justice

Regulatory Setting

All projects involving a federal action (funding, permit, or land) must comply with Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,* signed by President William J. Clinton on February 11, 1994. This EO directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. Low income is defined based on the Department of Health and Human Services poverty guidelines. For 2016, this was $24,300 for a family of four.

All considerations under Title VI of the Civil Rights Act of 1964 and related statutes have also been included in this project. The Caltran's commitment to upholding the mandates of Title VI is demonstrated by its Title VI Policy Statement, signed by the Director, which can be found in Appendix C of this document.

Affected Environment

A Community Impact Assessment was prepared for the project in February of 2009, and the Census data provided in this environmental document has been updated to be consistent with the 2010 Census, and is summarized in the following section. This assessment evaluated impacts to people institutions, neighborhoods, organizations, and larger social and economic systems.

Environmental justice is designed to protect areas with low income and minority populations from disproportionate project impacts. In order to analyze the project and alternatives for possible environmental justice inequities, areas that are sensitive to environmental justice issues must be identified; therefore, areas where low income or minority persons are concentrated are identified using the following criteria:

- **Low Income Neighborhoods.** These are areas defined by Census Tract Block Group (CTBG) where the median income is 80 percent or less than the median income of El Dorado County overall. Eighty percent is used to be consistent with the federal definition of low income household published by the U.S. Department of Housing and Urban Development (HUD). HUD defines a low income household as a household earning 80 percent or less of the median income of the county overall.

- **Minority Neighborhoods.** These areas are defined by CTBG that have higher concentrations (at least 10 percent) of minority (or non-white) persons than the County overall. Overall, 13.4 percent of the County is minority (non-white) persons. Areas that are considered minority neighborhoods include CTBG wherein over 20 percent or more of the population are minority persons.

Table 13 summarizes low income and minority characteristics by relevant CTBG located adjacent to the project.

Table 13: Low Income and Minority Populations

Area	Total Population	White		Non-White		Median Income	Median Income Ratio
		Population	Percent	Population	Percent		
Census Tract Block Groups							
308.03	7,241	6,572	90.7	669	9.2	$77,270	111.50
308.04-1	6,377	5,684	89.1	693	10.8	$76,476	110.36
309.02-1	4,687	4,193	89.4	494	10.5	$88,365	127.52
County Totals	181,058	156,793	86.5	24,265	13.4	$69,297	100.00

Source: U.S. Census 2010

Compared to El Dorado County overall, each of the census tract block groups in the project study area are higher in the number of white persons. No minority populations are present in the project study area; therefore, no adverse impacts to minority groups are anticipated.

The median income in the project study area is higher than El Dorado County. The project study area is between 110.36 and 127.52 percent higher than the El Dorado County median income. No disproportionate impacts upon low income residents are anticipated, since the project would not result in the relocation of residents. No minority or low-income populations that would be adversely affected by the proposed project have been identified as determined above. Therefore, this project is not subject to the provisions of E.O. 12898.

No minority or low-income populations that would be adversely affected by the proposed project have been identified as determined above. Therefore, this project is not subject to the provisions of EO 12898.

Avoidance, Minimization and/or Mitigation Measures

Based on the above discussion and analysis, all project alternatives will not cause disproportionately high and adverse effects on any minority or low-income populations per EO 12898 regarding environmental justice.

2.1.4 Utilities and Emergency Services

Affected Environment

Utilities and emergency services have been analyzed as part of the *Community Impact Assessment for the U.S. 50/Ponderosa Interchange Project* (PAR 2009).

Utilities

The 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 to the project area is received from Jenkinson Lake Reservoir, providing 20,450 acre-feet per year. The reservoir is located south of Pollock Pines in the Cosumnes River basin. Jenkinson Lake Reservoir is capable of supplying up to 125 cubic feet per second of water through the dam outlet and main conduit to Reservoir A water treatment plant. Under the current permit issued by the California Department of Health Services, Reservoir A water treatment plant has a capacity of 82 cubic feet per second (EID 2009).

The public wastewater authority that serves the project area is EID. The irrigation district recently completed major upgrades at both the Deer Creek and El Dorado Hills wastewater treatment plants. Currently, EID is working to upgrade and improve their wastewater system in areas where aging infrastructure is at issue. The District recently redesigned its Rancho Ponderosa facilities and is currently completing several improvements to the Town Center Force Main from the Town Center Lift Station on El Dorado Road to the Mother Lode Force Main (EID 2016).

Pacific Gas and Electric Company (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, along Wild Chaparral Drive and across U.S. 50.

The project residents are served by AT&T for their local telephone needs. Fiber optic telephone 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 and North Shingle roads.

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

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 and houses an engine company of one Captain-Emergency Medical Technician or Captain-Paramedic and one Firefighter-Emergency Medical Technician or Firefighter-Paramedic.

The project area is served by the El Dorado County Sheriff's Office. The Patrol Division is made up of 150 deputies that are responsible for all of El Dorado County. Headquarters is located in Placerville at 300 Fair Lane.

Environmental Consequences

Utilities

Build Alternatives 1, 2, and 3

PG&E facilities impacted by each of the Build Alternatives 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 Springs Road intersection. PG&E overhead distribution lines may be placed underground pursuant to formation of an Underground Utility District per 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 alignment. All three Build Alternatives will impact this facility. To accommodate the proposed improvement, the fiberoptic lines will be re-routed along Mother Lode Drive in existing AT&T underground facilities, and through the widened Ponderosa Road overcrossing structure. This line will then reconnect to existing AT&T facilities north of the interchange near the Wild Chaparral Drive/Ponderosa Road intersection.

Comcast facilities impacted by Build Alternatives 1, 2, and 3 include overhead cables on shared poles with PG&E along Ponderosa Road. These facilities, along with PG&E overhead distribution lines, may be placed underground pursuant to formation of an Underground Utility District per PUC Rule 20A or relocated to accommodate widening of Ponderosa Road

Build Alternatives 1 and 2

In addition to the utilities described above, Alternatives 1 and 2 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 is modified for both of these alternatives, 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 for joint agencies projects. As such, EID proposes, as part of the proposed project, 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 will 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 will be abandoned in place as part of the project. The new 20-inch force main will reconnect to existing 20-inch force mains to the west and east of the project that we recently replaced by previous EID projects. The new section of force main will be located wholly within the physical limits of the interchange project and will be completed during the term of the interchange project. EID also has other existing force mains and waterlines within the project limits. If impacted by the DOT project, these utilities and related appurtenances will be relocated to make way for the project.

In addition to the impacts to PG&E facilities described above under all build alternatives, Build Alternatives 1 and 2 will also impact overhead electrical lines near the proposed Durock Road realignment. This realignment creates the need to move several overhead spans carrying both high voltage (60 kilovolt [kV]) transmission lines and distribution lines (21kV). Due to the fact that 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 be placed underground, pursuant to the formation of an Underground Utility District per PUC Rule 20A, or relocated to maintain this service. The 60kV poles and lines will remain overhead but several poles will require relocation to accommodate the proposed road realignment.

No-Build Alternative

Under the No-Build Alternative, there will be no utility improvements or relocations within the study area.

Emergency Services

Build Alternatives 1, 2, and 3

The proposed project would have no adverse effects on emergency response planning, emergency access and risk exposure. 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 squared-up on- and off-ramps, would improve safety for pedestrians and bicyclists.

Traffic congestion and delays can occur during construction and can result in adverse effects; however, these effects can 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.

No-Build Alternative

Under the No Build 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 will be placed underground or relocated. Utility companies will be coordinated with to avoid any unnecessary disruption to utility services. Temporary interruption of service to utility customers during relocation for construction may occur; permanent interruptions will not occur.

Accommodations will be made to ensure that construction of the proposed project does not negatively affect emergency access.

Avoidance, Minimization and/or Mitigation Measures

Construction of all alternatives and the acquisition of ROW 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.

Measure UTL/ES-1: To avoid and minimize interruptions of service to utility customers, a series of coordination letters shall 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.

Measure UTL/ES-2: A Transportation Management Plan shall 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).

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.

2.1.5 Traffic & Transportation/Pedestrian & Bicycle

Regulatory Setting

Caltrans, as assigned by FHWA, directs that full consideration should be given to the safe accommodation of pedestrians and bicyclists during the development of federal-aid highway projects (see 23 Code of Federal Regulations [CFR] 652). It further directs that the special needs of the elderly and the disabled must be considered in all federal-aid projects that include pedestrian facilities. When current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort must be made to minimize the detrimental effects on all highway users who share the facility.

In July 1999, the U.S. Department of Transportation (USDOT) issued an Accessibility Policy Statement pledging a fully accessible multimodal transportation system. Accessibility in federally assisted programs is governed by the USDOT regulations (49 CFR Part 27) implementing Section 504 of the Rehabilitation Act (29 United States Code [USC] 794). 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

This section summarizes the *Traffic Report for the US Highway 50/Ponderosa Road/South Shingle Springs Road Interchange Project Study Report/Project Report* (Fehr & Peers 2009), and summarizes the findings of the US-50/Ponderosa Rd Interchange Volume Assessment (Fehr & Peers 2014).

The Traffic Report was prepared in conformance with methodologies that were developed in coordination with Caltrans and El Dorado County. For the following intersections in the project area, traffic impacts were analyzed based upon the effects from area-wide development and general population growth. Development included both the proposed project and nearby future projects. Traffic counts were collected and an AM and PM peak hour analysis was performed.

- Ponderosa Road/North Shingle Springs Road
- Ponderosa Road/U.S. 50 Westbound off-ramp (Wild Chaparral Drive)
- Ponderosa Road/U.S. 50 Eastbound off-ramps, Mother Lode Drive
- South Shingle Springs Road/Durock Road
- South Shingle Springs Road/Sunset Lane
- Mother Lode Drive/Sunset Lane

Existing Traffic Facilities

The existing U.S. 50/Ponderosa Interchange is connected with adjacent two-lane frontage roads associated with this facility which include North Shingle Road, Wild Chaparral and Mother Lode drives, Sunset and Durock roads. All of these surface streets are generally interconnected and provide access to various commercial and retail businesses and three park and ride lots.

The existing 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. 50. Through the project, U.S. 50 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 Springs Road. South Shingle Springs Road

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

The traffic analysis examines the freeway mainline, freeway ramp junction and the intersection operations under the existing conditions. Under existing conditions, when peak period traffic volumes were collected at the study intersections in 2006 by Fehr and Peers, the U.S. 50 eastbound off-ramp to Ponderosa Road is nearing full capacity at LOS E in the pm peak hour, and has sometimes backed up the ramp onto the highway. Table 14 shows existing LOS at the six intersections in the project area.

Table 14: Level of Service for Existing Conditions

Intersection	AM Peak Hour	PM Peak Hour
	LOS	LOS
1) Ponderosa Road / North Shingle Springs Road	D	C
2) Ponderosa Road / US 50 WB off-ramp (Wild Chaparral Drive)	B	B
3) Ponderosa Road / US 50 EB off-ramps, Mother Lode Drive	D	D
4) South Shingle Springs Road / Durock Road	C	D
5) South Shingle Springs Road / Sunset Lane	A	A
6) Mother Lode Drive / Sunset Lane	A	A

Source: Fehr & Peers, 2009

- All intersection operations analysis were conducted using procedures and methodologies contained in the Highway Capacity Manual, Transportation Research Board, 2000.
- Intersections were analyzed using the Synchro/SimTraffic microscopic traffic simulation analysis software.
- Freeway mainline segments and ramp junctions were analyzed using the Highway Capacity Software.

By the assumed construction year of 2020, it is forecast that the Ponderosa Road/North Shingle Road intersection will deteriorate to LOS F during the am peak hour and that the Ponderosa Rd./US 50 Eastbound ramps/Mother Lode Drive will also deteriorate to LOS F during the pm peak hour.

The US-50/Ponderosa Rd Interchange Volume Assessment (Fehr & Peers 2014) assessed the change in traffic volumes at the U.S. 50/Ponderosa Road Interchange including recent traffic

counts at 2006 study locations used for the 2009 analysis. The 2014 analysis concluded that the 2009 transportation analysis of the US-50/Ponderosa Road Interchange appears to use conservatively high estimates for vehicle volumes under design year conditions and that if the analysis were to be revised using current traffic counts and forecast projections, the analysis results would likely show better performance than presented in the traffic report.

Existing Pedestrian and Bicycle Facilities

The existing Ponderosa Road overcrossing includes 4-foot shoulders on both sides of the road and a 5-foot sidewalk on the west side to accommodate bicycle and pedestrian movements. The existing eastbound and westbound ramp entrances are skewed and allow for higher entry speeds, which create potential safety concerns for non-motorized travelers. Furthermore, pedestrian crossings at interchange ramps lack curb ramps, making pedestrian crossing movements unsafe. South Shingle Springs Road and Ponderosa Road lack a contiguous sidewalk system on either side of the road, further inhibiting pedestrian travel through the project area.

Accident and Safety Information

Automobile, bicycle, and pedestrian safety is an issue along the corridor. Traffic accident rates at two out of five of the U.S. 50/Ponderosa Interchange ramps are equal to, or worse than the statewide average. The TASAS data indicated that speed and improper turns accounted for 50 to 75 percent of the accidents consisting of rear-end collisions and vehicles running off the road. As congestions increases on a roadway, the amount of distance between vehicles is reduced, leading to increased number of rear-end collisions. Additionally, vehicles leaving the roadway are indicative of excessive speeds. Congestion coupled with excessive speed creates an unsafe situation for drivers and pedestrians around the interchange.

Environmental Consequences

The traffic study indicates that five of the six intersections will operate at LOS F in 2035 (design year) if improvements are not made (Table 15). Under Alternative 3, four of the six intersections would operate at LOS F in the design year. Under Alternatives 1 and 2 all intersections will operate at LOS D or better.

Table 15: Level of Service (LOS) for Design Year (2035) by Build Alternative

Intersection	No Project		With Project Alternative 1		With Project Alternative 2		With Project Alternative 3	
	AM	PM	AM	PM	AM	PM	AM	PM
1) Ponderosa Road/North Shingle Springs Road.	**F**	**F**	B	B	C	B	**F**	**F**
2) Ponderosa Road/US 50 WB off-ramp (Wild Chaparral Dr.)	**F**	**F**	B	B	A	B	**F**	**F**
3) Ponderosa Road/US 50 EB off-ramps, Mother Lode Drive	**F**	**F**	C	D	C	D	**F**	**F**
4) South Shingle Springs Road/ Durock Road.	E	**F**	--	--	--	--	E	**F**
5) South Shingle Springs Road/ Sunset Lane.	A	B	B	C	B	C	A	A
6) Mother Lode Drive/Sunset Lane.	C	**F**	A	C	B	C	E	C

Notes: *Bold and underline font indicate unacceptable operations based on analysis evaluation criteria. Level of service (LOS) is reported.*

Source: Fehr & Peers, 2009

- All intersection operations analysis were conducted using procedures and methodologies contained in the Highway Capacity Manual, Transportation Research Board, 2000.
- Intersections were analyzed using the Synchro/SimTraffic microscopic traffic simulation analysis software.
- Freeway mainline segments and ramp junctions were analyzed using the Highway Capacity Software.

Build Alternatives 1 and 2

The traffic study prepared for this project includes an analysis of traffic conditions in 2035. The intersection operation results are presented above in Table 15.

With implementation of Alternatives 1 and 2, traffic operations would improve. All roadway intersections would be improved to acceptable LOS standards. The LOS at all intersections would be better in the Year 2035 than without the project.

Alternatives 1 and 2 would improve facilities for bicycles and pedestrians. Class II bike lanes would be provided for along all roads within the project area, including along the Ponderosa Overcrossing. Sidewalks and traffic signals will be included at the realigned frontage road intersections. Additionally, the project would square up interchange ramps to improve bicycle and pedestrian safety.

Alternatives 1 and 2 would modify some existing traffic patterns. For example, Durock Road would be realigned to meet with South Shingle Springs Road across from Sunset Lane, and North Shingle Road would be realigned to meet with Ponderosa Road approximately 1,000 feet north of its current alignment. Additionally Wild Chaparral Drive would terminate in a cul-de-sac by the park and ride lot in the northwest quadrant of the project before it would intersection with Ponderosa Road. Although these modifications would affect residents and businesses immediately adjacent to the project, the overall transportation improvements would benefit the

local and regional traffic as congestion would decrease and levels of service would increase. Therefore, the project is not expected to have an adverse effect on traffic patterns for residents and businesses.

During construction of Alternatives 1 and 2, accessibility for vehicles, bicycles and pedestrians may be affected. Travel lane and/or sidewalk closures may occur during various phases of construction, resulting in detours and temporary traffic delays associated with the construction period.

Build Alternative 3

The traffic study prepared for this project includes an analysis of traffic conditions in 2035. Results are presented above in Table 15.

With implementation of Alternative 3, traffic operations would be similar to the No Build Alternative. Both the east and westbound off-ramps, along with two other intersections analyzed would have LOS F.

Alternative 3 would improve facilities for bicycles and pedestrians. Class II bike lanes would be provided along all roads within the project area, including along the Ponderosa Overcrossing. Additionally, the project would square up interchange ramps to improve bicycle and pedestrian safety.

Alternative 3 would not modify existing traffic patterns for residents and businesses. No road realignments would be necessary. The Ponderosa Overcrossing would be widened to five lanes to relieve traffic congestion, but would not alter the patterns for existing traffic traveling over the overcrossing.

During construction of Alternative 3, accessibility for vehicles, bicycles and pedestrians may be affected. Travel lane and/or sidewalk closures may occur during various phases of construction, resulting in detours and temporary traffic delays associated with the construction period.

No Build Alternative

The traffic operations analyses are presented in Table 15 for ramps and intersections, and indicate deficiencies under existing and future conditions. The study of the ramps showed that the westbound off-ramp operated at a LOS B in both the AM and PM, while the eastbound off-ramp operated at a LOS D in the AM and PM. The roadway intersections operate between LOS A and D. Traffic in the Year 2035 would cause all but one of the intersections in the study area to fail.

Under the No Build Alternative, no improvements would be constructed for bicycle and pedestrian facilities. Safety would still be a concern, as interchange ramps would not be squared up and Class II bicycle facilities would not be provided. The No Build Alternative would not modify existing traffic patterns for residents and businesses. Under the No Build Alternative, improvements would not be constructed; therefore, construction period effects to the transportation system do not apply to this alternative.

Bicycle and Pedestrian Facilities

All three build alternatives propose wider shoulders and sidewalks on the widened overcrossing, squared up, ADA compliant ramp entrances with crosswalks, and sidewalks along Ponderosa Road and South Shingle Springs Road to provide safer and improved access for non-motorized travelers. These proposed improvements are consistent with projects recommended in the El Dorado County Bicycle Master Plan.

LOS for Interim Phased Conditions

El Dorado County has done a qualitative analysis of traffic operations for interim phased conditions and determined that each phase of the project will allow the facility to operate at a LOS better than the no the project alternative; therefore no interim traffic related impacts are anticipated. A full summary of construction phasing for the project can be found in Section 1.5.

Avoidance, Minimization and/or Mitigation Measures

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

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

Measure TRAF-2: Prior to the start of construction, the County shall 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.

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

2.1.6 Visual/Aesthetics

Regulatory Setting

The National Environmental Policy Act of 1969 as amended (NEPA) 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 United States Code [USC] 4331[b][2]). To further emphasize this point, the Federal Highway Administration (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.

The California Environmental Quality Act (CEQA) establishes that it is the policy of the state to take all action necessary to provide the people of the state "with…enjoyment of *aesthetic*,

natural, scenic and historic environmental qualities" (CA Public Resources Code [PRC] Section 21001[b]).

Affected Environment

A visual resource assessment was conducted within and adjacent to the proposed project limits of the U.S. 50/Ponderosa Road Interchange. The assessment included a review of scenic goals and policies for El Dorado County. Visual elements of the proposed project were evaluated in relation to the existing visual character in the vicinity of the project area. Field surveys were used to evaluate the visual resource impacts of the project on March 30 and April 27, 2009, and again on June 24, 25, and July 7, 2015. Scenic resources in the project area 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.

The existing Ponderosa Interchange overcrossing is a three-lane overpass surrounded by a lightly developed urban environment. The overcrossing was constructed in 1969. Presently, Durock and North Shingle roads, 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, commercial land uses. Prominent features in the area include car dealerships, retail shopping centers, and park and ride facilities.

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.

Viewpoints of the project area are located along existing roadways, from parking area, 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 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 in Figure 9.

Environmental Consequences

<u>Build Alternatives 1, 2 and 3</u>

Ponderosa Road U.S. 50 Overcrossing Improvements: The portion of U.S. 50 inside the project area is not an officially designated scenic highway. Completion of the proposed project will 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. Viewer exposure will be brief and peripheral due to high travel speeds. Resident commuters may notice a new overcrossing; however, it will be of similar construction to the existing structure. Further, the new external treatments, such as texture and paint color, 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. These changes are considered consistent with the existing character of the area and therefore impacts are less than significant.

Existing Ponderosa Overcrossing

Example of Similar Bridge Treatment, Photo of Existing Missouri Flat Interchange

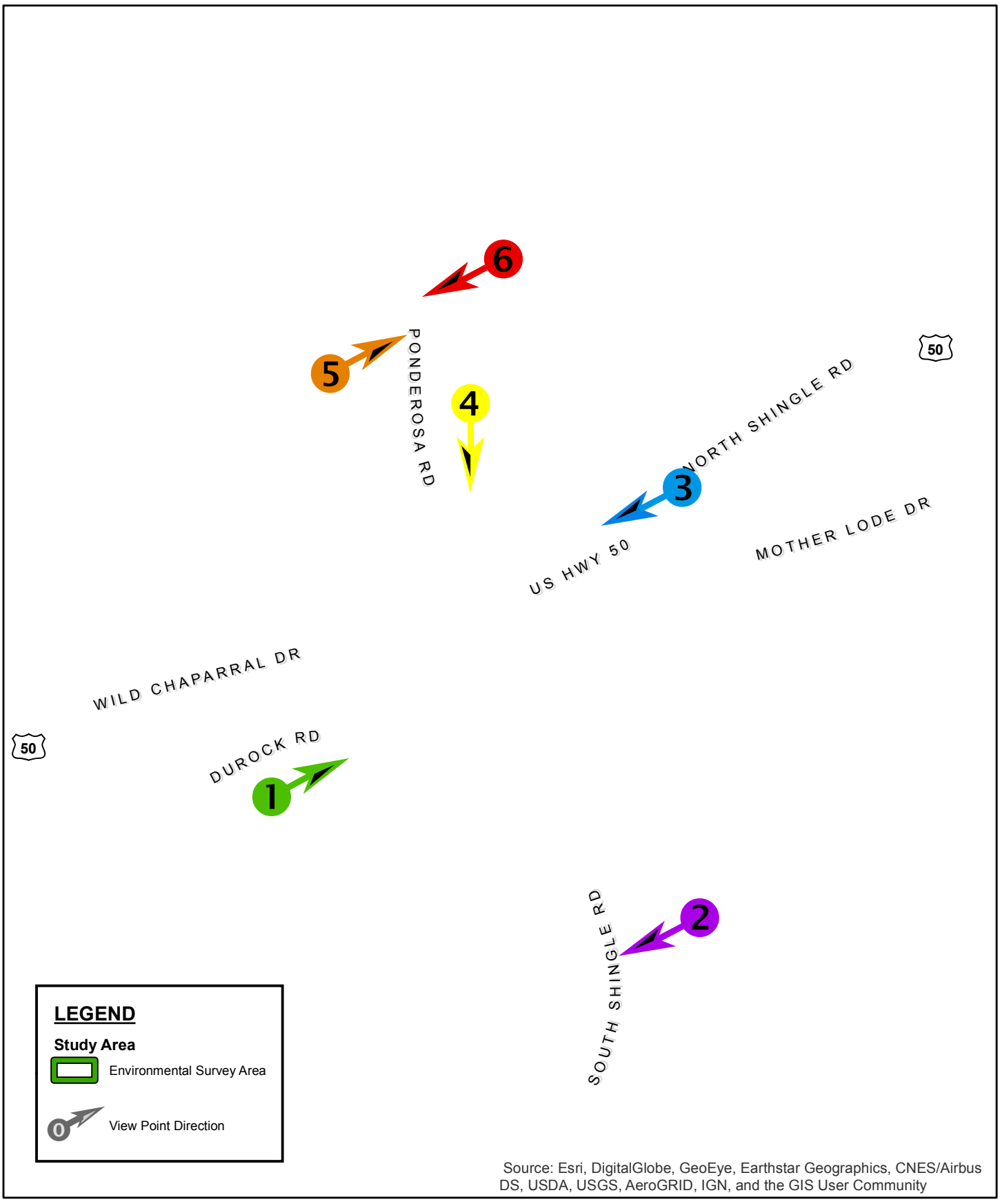

FIGURE 9
VIEW POINT LOCATIONS
U.S. 50/Ponderosa Interchange Improvements Project
District 3-Eld-50 (PM 8.3/8.7)
Federal Project # EA 03-2E550
El Dorado County, California

Six key viewpoints were studied to identify the visual impacts to scenic resources (i.e. 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.

Key Viewpoint 1

View of South-Eastbound Durock Road from the Intersection of Durock Road and Oakmont Drive: This view is from the perspective of the south-eastbound motorist on Durock Road. Commercial development is visible on the south side of the road and U.S. 50 on the north side. One commercial development would be acquired through the realignment of Durock Road under Build Alternatives 1 and 2. Vegetation in the area consists mostly of landscaping.

Existing Key Viewpoint 1

Visual Changes to Viewpoint 1: Completion of the Proposed Project will introduce a permanent physical change through construction of the realignment of Durock Road. This impact is the same for each Build Alternative. Even though Build Alternative 3 does not realign Durock Road to a point further south, the road widening will be visible. 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. Viewer exposure from adjacent businesses is not considered sensitive. Changes as a result of the Durock Road realignment are considered consistent with the existing character and therefore impacts are less than significant.

Proposed Key Viewpoint 1

Build Alternatives 1 and 2

Key Viewpoint 2

View of North-Westbound Durock Road From the Intersection of Sunset Lane and South Shingle Springs Road: This view shows the existing Sunset Lane and South Shingle Springs Road in the foreground. The background depicts the portion of the oak woodland that would be eliminated by project improvements under Build Alternatives 1 and 2.

Existing Key Viewpoint 2

Visual Changes to Key Viewpoint 2: Completion of the proposed project will introduce a permanent physical change under Build Alternatives 1 and 2 through construction of the realignment of Durock Road. Key Viewpoint 2 shows the existing Sunset Lane and South Shingle Springs Road in the foreground. The background depicts the portion of the oak woodland that would be replaced by project improvements. The existing character of this area as a whole is developed with commercial and residential streets, lined with oak trees and native grasses. Even though some oak woodland will be replaced by the realigned roadway, significant woodland will remain on either side of the realignment. Changes that occur as a result of this realignment are considered consistent with the existing character of the area and impacts are therefore less than significant.

Proposed Key Viewpoint 2

Key Viewpoint 3

View of North-Westbound North Shingle Road from Intersection of Sports Club Drive and North Shingle Road: This view shows the Millennium Sports Club Driveway on the north side of the road and U.S. 50 along the south side of the road. Oak woodland encompasses the area between the sports club and the north side of North Shingle Road. Oak woodland vegetation would be lost through the addition of project improvements to that area under Build Alternatives 1 and 2.

Existing Key Viewpoint 3

Visual Changes to Key Viewpoint 3: Completion of the project will introduce a permanent physical change under Build Alternatives 1 and 2 through construction of the realignment of North Shingle Road. Key Viewpoint 3, located at the intersection of Sports Club Drive and North Shingle Road, shows the Sports Club driveway on the north side of the road and U.S. 50 along the south. As the proposed realignment of North Shingle Road bends northwest, some oak tree removal will occur. The existing character is one of mixed commercial and intermittent open space bisected with roads along a busy freeway. Construction of this realignment will introduce changes, but will not alter the visual character. Some grass and trees will be replaced by the realignment, but significant trees and/or grassland will still remain on the north side of the road. Changes occurring as a result of this realignment are considered consistent with the existing character and impacts are thus less than significant.

Proposed Key Viewpoint 3

Key Viewpoint 4

View of South-Eastbound North Shingle Road from the Edge of the Oak Woodland along the New Alignment: This area, located approximately 500 feet east of Ponderosa Road, is at the fringe of the oak woodland where the new North Shingle Road alignment will be placed. U.S. 50 is located in the background of the view. Vegetation in the viewpoint area is characterized by annual grassland and oak woodland. This new alignment would be used under Build Alternatives 1 and 2.

Existing Key Viewpoint 4

Visual Changes to Key Viewpoint 4: The proposed project will introduce a permanent physical change under Build Alternatives 1 and 2 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 will be placed. U.S. 50 and the commercial development on Mother Lode Drive are 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. Construction of this realignment will introduce changes, but will not alter that character. Some grassland and trees will be replaced by the realignment, but most of these trees and/or grassland will still remain on north side of the road. Changes that occur as a result of the realignment of North Shingle Road are considered consistent with the existing character of the area. Therefore impacts are less than significant.

Proposed Key Viewpoint 4

Build Alternative 2

Key Viewpoint 5

View of realigned connection from Wild Chaparral northward to Ponderosa Road: This view is located at the proposed new extension of the driveway terminus just north of the storage facilities that extends northeast to the new intersection with Ponderosa Road, across and due east from the proposed new intersection of North Shingle Road with Ponderosa Road. Vegetation in the viewpoint area is characterized by annual grassland and oak woodland. This new alignment would be used under Build Alternative 2.

Existing Key Viewpoint 5

Visual Changes to Key Viewpoint 5: Completion of the proposed project will introduce a permanent physical change under Build Alternative 2 through construction of a new connection of Wild Chaparral to Ponderosa Road. This view is located at the proposed new extension of the driveway terminus just north of the storage facilities looking north toward the new connection with Ponderosa Road, across and due east from the proposed new intersection with North Shingle Road. Vegetation in this viewpoint area is characterized by annual grassland and, minimal oak woodland and scrub vegetation. Views to the south are of storage facilities commercial car dealerships and U.S. 50. Construction of this realignment will introduce changes, but will not alter that character. Some grassland and trees will be replaced by the realignment, but most of these trees and/or grassland will still remain on either side of the road. Changes that occur as a result of the realignment of North Shingle Road are considered consistent with the existing character of the area. Therefore impacts are less than significant.

Proposed Key Viewpoint 5

Key Viewpoint 6

View of new connection of Ponderosa Road to Wild Chaparral: This view is located at the proposed new intersection with Ponderosa Road, across and due west from the proposed new intersection of North Shingle Road with Ponderosa Road looking southwest. Vegetation in the viewpoint area is characterized by annual grassland and oak woodland. This new alignment would be used under Build Alternative 2.

Existing Key Viewpoint 6

Visual Changes to Key Viewpoint 6: Completion of the proposed project will introduce a permanent physical change under Build Alternative 2 through construction of a new connection of Wild Chaparral to Ponderosa Road. This view is located at the proposed new intersection with Ponderosa Road, across and due west from the proposed new intersection with North Shingle Road. Vegetation is characterized by annual grassland and, minimal oak woodland and scrub vegetation. Views to the south along Ponderosa Road are of telephone lines along Ponderosa Road in the foreground and, U.S. 50/Ponderosa Interchange and highway frontage type commercial development in the background. Construction of this realignment will introduce changes, but will not alter the visual character. Some grassland and trees will be replaced by the realignment, but most of these trees and/or grassland will still remain on either side of the road. Changes that occur as a result of the realignment of North Shingle Road are considered consistent with the existing character of the area. Therefore impacts are less than significant.

Proposed Key Viewpoint 6

Light and Glare from Vehicles due to Realigned Roadways: The project would result in new motor vehicle usage on realigned Durock and North Shingle roads. Nighttime motor vehicle operation along Durock 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 is no direct and continuous headlight shine to motorists traveling on U.S. 50.

Installation of additional traffic signals and 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 signal and residences. In addition, all signals and street lights 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 traffic signal installation, these impacts are considered less than significant.

Oak Woodlands: The *El Dorado County Oak Woodland Management Plan* (OWMP) states that when oak canopy removal is necessary to complete County capital improvement program (CIP) projects, such projects are exempt from the canopy retention and replacement standards. This exemption applies to road widening and realignments that are necessary to increase capacity, to protect the public's health, and to improve the safe movement of people and goods in existing public road rights-of-way, as well as acquired rights-of-way necessary to complete the project. Although blue oaks are considered a scenic resource, this project meets the exemption criteria because it is a component of the County's CIP and is necessary to increase capacity, protect the health, and improve the safe movement of people and goods in existing public road rights-of-way; however, the County will nevertheless replace any removed oak tree canopy (based on Option A of General Plan Policy 7.4.4.4) on-site of the project area, where feasible, at a 1:1 ratio and by incorporating oak plantings to the greatest extent possible in the landscape plan created during final design of the project. Additionally, measures BIO-1 through BIO-8 in Section 2.3.1 Natural Communities will further reduce any oak woodland impacts to less than significant levels. Table 16 shows a breakdown of impacts to habitat types; however, a full discussion of impacts to oak woodlands is included in Section 2.3.1.

Table 16: Habitat Impacts in the Project Area

Habitat Type	Total Area in Acres	Direct Impact Alt 1	Direct Impact Alt 2	Direct Impact Alt 3	Indirect Impact Alt 1	Indirect Impact Alt 2	Indirect Impact Alt 3
Landscaping/Ruderal	86.37	6.50	7.50	2.25	0	0	0
Annual Grassland	29.70	5.70	6.52	2.84	4.68	5.25	5.43
Blue Oak Woodland	25.30	4.58	5.05	1.50	0	0	0

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 will 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 is considered less than significant and no mitigation is required.

Avoidance, Minimization and/or Mitigation Measures

Construction of this project, including realignment will introduce changes, but will not alter the character. Some grassland and trees will be removed by the realignment, but significant trees and/or grassland will still remain on either side of the road. Changes that occur as a result of the modified interchange, the realignment of North Shingle Road and Durock Road are considered consistent with the existing character of the area. Therefore impacts are less than significant. No mitigation is necessary. However, landscaping and oaks removed for road construction are subject to County policy and will be replanted to the greatest possible extent.

2.1.7 Cultural Resources

Regulatory Setting

The term “cultural resources” as used in this document refers to all “built environment” resources (structures, bridges, railroads, water conveyance systems, etc.), culturally important resources, and archaeological resources (both prehistoric and historic), regardless of significance. Laws and regulations dealing with cultural resources include NEPA and CEQA. The intent of these laws is to determine if a project will have a significant impact on cultural resources determined eligible for the National Register of Historic Places (National Register) (under NEPA), the California Register of Historical Resources (California Register) (under CEQA), or as a Tribal Cultural Resource (TCR) (under CEQA). Identification, eligibility, and impact assessments differ between NEPA and CEQA.

National Environmental Policy Act and 36 CFR 800

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. 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 the opportunity to comment on those undertakings, following regulations issued by the Advisory Council on

Historic Preservation [36 Code of Federal Regulations (CFR) 800]. On January 1, 2014, the First Amended Section 106 Programmatic Agreement (PA) between the Advisory Council, the Federal Highway Administration (FHWA), State Historic Preservation Officer (SHPO), and Caltrans went into effect for Caltrans projects, both state and local, with FHWA involvement. The PA implements the Advisory Council's regulations, 36 CFR 800, streamlining the Section 106 process and delegating certain responsibilities to the 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).

The Archaeological Resources Protection Act (ARPA) applies when a project may involve archaeological resources located on federal or tribal land. The ARPA requires that a permit be obtained before excavation of an archaeological resource on such land can take place.

The NEPA historic property conclusions are included at the end of this section.

California Environmental Quality Act

Historical resources are considered under CEQA, as well as CA Public Resources Code (PRC) Section 5024.1, which established the California Register of Historical Resources. PRC Section 5024 requires state agencies to identify and protect state-owned resources that meet the National Register of Historic Places listing criteria. It further specifically requires Caltrans to inventory state-owned structures in its rights-of-way. Sections 5024(f) and 5024.5 require state agencies to provide notice to and consult with the State Historic Preservation Officer (SHPO) before altering, transferring, relocating, or demolishing state-owned historical resources that are listed on or are eligible for inclusion in the National Register or are registered or eligible for registration as California Historical Landmarks.

Assembly Bill 52

Effective July 1, 2015, CEQA was revised to include early consultation with California Native American tribes and consideration of TCRs. These changes were enacted through Assembly Bill 52 (AB 52). By including TCRs early in the CEQA process, AB 52 intends to ensure that local and Tribal governments, public agencies, and project proponents would have information available, early in the project planning process, to identify and address potential adverse impacts to TCRs. CEQA now establishes that a "project with an effect that may cause a substantial adverse change in the significance of a TCR is a project that may have a significant effect on the environment" (PRC § 21084.2).

To help determine whether a project may have such an adverse effect, the PRC requires a lead agency to consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project. That consultation must take place prior to the determination of whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project (PRC § 21080.3.1). Consultation must consist of the lead agency providing formal notification, in writing, to the tribes that have requested notification or proposed projects within their traditionally and culturally affiliated area. AB 52 stipulates that the Native American Heritage Commission (NAHC) shall assist the lead agency in identifying the California Native American tribes that are

traditionally and culturally affiliated within the project area. If the tribe wishes to engage in consultation on the project, the tribe must respond to the lead agency within 30 days of receipt of the formal notification. Once the lead agency receives the tribe's request to consult, the lead agency must then begin the consultation process within 30 days. If a lead agency determines that a project may cause a substantial adverse change to TCRs, the lead agency must consider measures to mitigate that impact. Consultation concludes when either: 1) the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a TCR, or 2) a party, activing in good faith and after reasonable effort, concludes that mutual agreement cannot be reached (PRC § 21080.3.2). Under existing law, environmental documents must not include information about the locations of an archaeological site or sacred lands or any other information that is exempt from public disclosure pursuant to the Public Records act. TCRs are also exempt from disclosure. The term "tribal cultural resource" refers to either of the following:

Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

- Included or determined to be eligible for inclusion in the California Register of Historical Resources

- Included in a local register of historical resources as defined in subdivision (k) of California Public Resources Code (PRC) Section 5020.1

- A resource determined by a California lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of the PRC Section 5024.1.

The CEQA historical resources and TCR conclusions are included at the end of this section.

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, 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 prehistoric, 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 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 on a list 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).

Additional consultation with the NAHC and Native American tribes and a supplemental review of site records and reports on file at the NCIC were conducted in 2015. These efforts were undertaken to ascertain whether additional cultural resources had been identified since the 2008 cultural resource investigations. A Supplemental HPSR was prepared and approved in 2016 to document these efforts.

Area of Potential Effects

The archaeological Area of Potential Effect (APE) encompasses the entire project area for all alternatives. The APE extends from PM 8.3 to 8.7 along U.S. 50. The APE extends westerly along the U.S. 50 mainline for approximately 450 feet (137 m) and easterly 600 feet (182.9 m) just past the existing westbound off-ramp. To the north, the APE extends 450 feet (137.2 m) just north of the Ponderosa and North Shingle road junction; and in a southern direction 600 feet (182.9 m) to just past the South Shingle Springs and Sunset Lane road junction.

The vertical APE defined for the project is based on the type of action require for portions of the project. For most of the roadways, construction is limited to the upper two to five feet of soil. The maximum cut depth is 12 feet at North Shingle Road.

The architectural APE includes parcels with proposed ROW take or visual impacts due to the improvement project. All properties included in the architectural APE are modern (less than 45 years of age) and were exempted from further evaluation, as per Stipulation VIII.C.1 of the Section 106 PA (January 2004).

The APE was amended on December 16, 2008 to include APN 090-440-24 in the southeast quadrant of the project area. In addition, the architectural APE was redrawn to reflect the actual property line of APN 109-040-40 in the southwest quadrant of the project area. As there have been no preliminary design changes since 2008 which require modifications to the APE, the 2008 approved APE remains valid.

Resources Identified

Six archaeological sites were located during the 2008 pedestrian survey. Five of these archaeological sites are exempt from evaluation under Stipulation VII.C.1 of the Caltrans Section 106 PA. The sixth resource, foundation remnants and sparse scatters of trash, was evaluated and found not to be eligible for listing on the National Register or the California Register. The only architectural properties identified within the architectural 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

A supplemental records search of the project area and a quarter-mile study area was requested from the (NCIC) at California State University, Sacramento in 2015. No newly recorded cultural resources were identified by the NCIC. As field conditions remain unchanged and as no changes were made to either the Architectural or Archaeological APEs approved for this project, no additional pedestrian surveys are required.

Environmental Consequences

CEQA – Historical Resources and TCRs

No historical resources or TCRs were identified within the project's APE. During the 2015 consultation efforts, several tribes stated they had concerns regarding the project, but all deferred to the Shingle Springs Band of Miwok Indians regarding consultation on the project. While the Shingle Springs Band of Miwok Indians were not aware of any TCRs within the APE, they were concerned about the potential for buried Native American archaeological resources to be present within the APE. Due to this concern, the Shingle Springs Band of Miwok Indians requested protective fencing along construction footprint limits in areas believed to be adjacent sensitive Native American resources, a tribal monitor present during ground disturbing activities, and a monitoring plan. Pursuant to AB 52 coordination, the County, as the CEQA lead agency, has agreed to work with the Shingle Spring's Band of Miwok Indians in an effort to meet their requests. Minimization measure **CR-3,** detailed below, will ensure that the County will continue coordinating with the tribe throughout project duration, that the Shingle Springs Band of Miwok Indians 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. This continued coordination and minimization measure is subject to CEQA and not NEPA.

NEPA/Section 106/Section 4(f) – Historic Properties

No historic properties were identified within the APE and as such, no Section 4(f) resources occur within the project vicinity and no mitigation measures are necessary under NEPA. Concerns regarding buried site sensitivity are mainly due to the presence of previously recorded prehistoric/Native American sites in the vicinity. None of these previously recorded sites are within the project APE and the closest site was heavily impacted by construction of US 50 and the surrounding commercial development. Further, during the last few decades the natural topography within the APE has been significantly altered due to the construction and widening of the US 50 corridor, existing US 50 interchange, city roads, buried utilities, and commercial development. These transportation and commercial developments have also heavily impacted and, in some cases, destroyed some of the previously recorded sites within the project's quarter mile study area. As a result, the potential for intact, buried deposits to be present within the APE is considered low.

Avoidance, Minimization and/or Mitigation Measures

Cultural resource identification efforts did not identified any National Register eligible historic properties, California Register eligible historical resources, or TCRs within the project's APE. Based on these results, it is unlikely that the proposed project will impact any cultural resources that are potentially eligible for listing on the National Register or California Register or that would qualify as a TCR; however, the following minimization measures **CR-1** through **CR-3** shall be implemented to minimize impacts to cultural resources discovered during construction of the project. These measures are subject to CEQA and not NEPA.

Measure CR-1: If previously unidentified cultural materials are unearthed during construction, work shall 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.

Measure CR-2: If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall 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 the same time, an archaeologist should be contacted to evaluate the situation. Further provisions of PRC 5097.98 are to be followed as applicable.

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.

2.2 Physical Environment

2.2.1 Hydrology and Floodplain

Regulatory Setting

Executive Order (EO) 11988 (Floodplain Management) directs all federal agencies to refrain from conducting, supporting, or allowing actions in floodplains unless it is the only practicable alternative. The Federal Highway Administration requirements for compliance are outlined in 23 Code of Federal Regulations (CFR) 650 Subpart A.

To comply, the following must be analyzed:

- The practicability of alternatives to any longitudinal encroachments.
- Risks of the action.
- Impacts on natural and beneficial floodplain values.
- Support of incompatible floodplain development.
- Measures to minimize floodplain impacts and to preserve/restore any beneficial floodplain values affected by the project.

The base floodplain is defined as “the area subject to flooding by the flood or tide having a one percent chance of being exceeded in any given year.” An encroachment is defined as “an action within the limits of the base floodplain.”

Affected Environment

This section is summarized from the *U.S. 50-Ponderosa Road Interchange Preliminary Drainage Report*, prepared by David Evans and Associates (April 2009).

The project watershed is approximately 221 acres and consists of a mix of pavement/commercial, residential, and undeveloped land uses. The project watershed was subdivided into three basins for analysis.

Basin #1 is approximately 81.4 acres and is located in the northwest quadrant of the project area. Basin #1 is generally bounded by Ponderosa Road on the east, Durock Road on the south, and a hillside ridge to the west. The run-off generally flows from the east side of the basin (Ponderosa Road) to the west/southwest where it collects into a defined channel and travels south where it intersects Wild Chaparral Drive entering a culvert that flows under U.S. 50 and into a roadside channel that parallels the south side of the freeway. The culvert discharges to an unnamed tributary of Deer Creek. These flows ultimately make their way to the Cosumnes River over ten miles away.

Basin #2 is approximately 71.7 acres and is located in the northeast quadrant of the project area. Basin #2 is generally bounded by Ponderosa Road on the west, Mother Lode Drive on the south, and hillside ridges to the north and east. Run-off from this basin generally flows south to North Shingle Road where it enters a culvert, flows under U.S. 50 and discharges into a roadside channel that parallels the south side of the freeway. Roadway run-off from U.S. 50 is also conveyed to this ditch, which continues to flow east and eventually discharges to Shingle Creek. Shingle Creek ultimately flows to the Cosumnes River over ten miles away.

Basin #3 is approximately 68.2 acres and is located in the southern quadrant of the project area. Run-off from Basin #3 generally flows south to southwest primarily across residential and undeveloped land where it discharges to a small pond located between South Shingle Springs Road, Lakeview Drive, and Presley Lane. This pond appears to have no outlet and the water level is most likely controlled by percolation and/or evaporation.

Project Area Flood Hazard Areas

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (Map Number 06017C0750E, Sept. 2008) shows that the project area lies within Zone X, defined as those areas determined to be outside the 500-year floodplain; however, local or spot flooding, if it exists, usually is not shown on FEMA flood insurance rate maps, especially if the source of flooding is related to development or drainage modifications since the date of the map (Figure 10).

Inquiries and consultation with Caltrans and the County indicate that there are no files on record of drainage problems or complaints in the project area (DEA 2009).

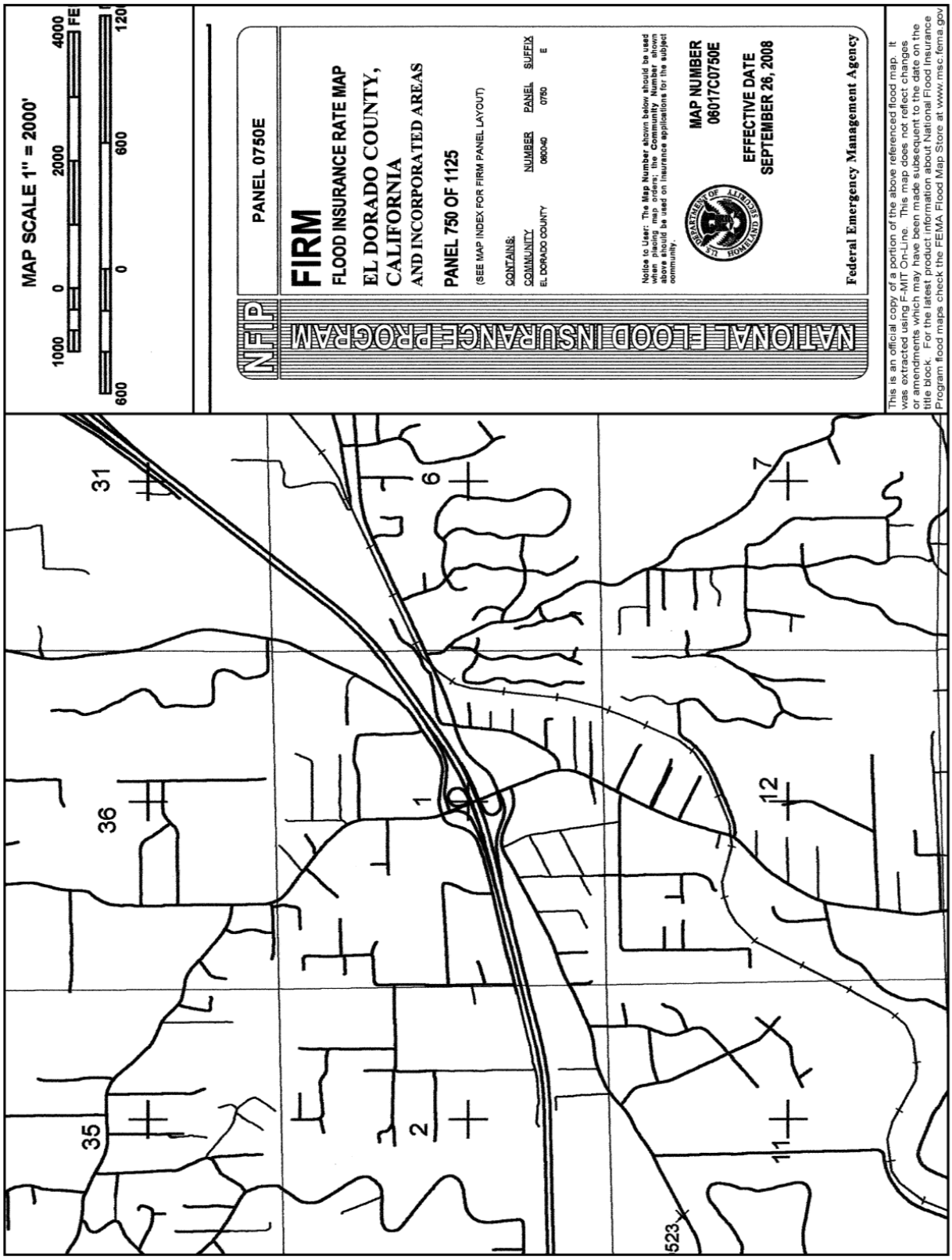

Figure 10: Flood Insurance Rate Map

Environmental Consequences

Build Alternatives 1, 2, and 3

Existing flow patterns are generally maintained in the post-project condition. The post-project condition results in an increase of approximately 8 acres of impervious area (3.5% increase) within the watershed. Consequently, the peak flows also increase by approximately 3.5% given that an increase of 6.6 cubic feet per second during a 10-year storm and 11.7 cubic feet per second during a 100-year storm can be expected to occur after the project improvements have been completed for the entire project area; however, it is not expected that the post-project flows will impact downstream facilities.

No-Build Alternative

Under the No-Build Alternative no construction would take place and there would be no increase in impervious surfaces. Consequently, there would be no impacts to hydrology or the floodplain.

Avoidance, Minimization and/or Mitigation Measures

No measures are required for avoidance, minimization and/or mitigation.

2.2.2 Water Quality and Storm Water Run-off

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[3] unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. This act and its amendments are known today as the Clean Water Act (CWA). Congress has amended the act several times. In the 1987 amendments, Congress directed dischargers of storm water from municipal and industrial/construction point sources to comply with the NPDES permit scheme. The following are important CWA sections:

- Sections 303 and 304 require states to issue water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for a federal license or permit to conduct any activity that may result in a discharge to waters of the U.S. to obtain certification from the state that the discharge will comply with other provisions of the act. This is most frequently required in tandem with a Section 404 permit request (see below).
- Section 402 establishes the NPDES, a permitting system for the discharges (except for dredge or fill material) of any pollutant into waters of the U.S. Regional Water Quality

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

Control Boards (RWQCB) administer this permitting program in California. Section 402(p) requires permits for discharges of storm water from industrial/construction and municipal separate storm sewer systems (MS4s).

- Section 404 establishes a permit program for the discharge of dredge or fill material into waters of the United States. This permit program is administered by the U.S. Army Corps of Engineers (USACE).

The goal 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 Standard permits. There are two types of General permits: Regional permits and Nationwide permits. Regional permits are issued for a general category of activities when they are similar 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 Nationwide Permit may be permitted under one of the USACE's Standard permits. There are two types of Standard permits: Individual permits and Letters of Permission. For Standard permits, the USACE decision to approve is based on compliance with U.S. Environmental Protection Agency's Section 404 (b)(1) Guidelines (U.S. EPA Code of Federal Regulations [CFR] 40 Part 230), and whether the 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. According to the Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures has been followed, in that order. The Guidelines also restrict permitting activities that violate water quality or toxic effluent[4] standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause "significant degradation" to waters of the U.S. In addition, every permit from the USACE, even if not subject to the Section 404(b)(1) Guidelines, must meet general requirements. See 33 CFR 320.4. A discussion of the LEDPA determination, if any, for the document is included in the Wetlands and Other Waters section.

State Requirements: Porter-Cologne Water Quality Control Act

California's 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

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

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 (objectives and beneficial uses) required by the CWA and regulating discharges to ensure compliance with the water quality standards. Details about water quality standards in a project area are included in the applicable RWQCB Basin Plan. In California, Regional Boards designate beneficial uses for all water body segments in their jurisdictions and then set criteria necessary to protect these uses. As a result, the water quality standards developed for particular water segments are based on the designated use and vary depending on that use. In addition, the SWRCB identifies waters failing to meet standards for specific pollutants. These waters are then state-listed in accordance with CWA Section 303(d). If a state determines that waters are impaired for one or more constituents and the standards cannot be met through point source or non-point source controls (NPDES permits or WDRs), 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.

State Water Resources Control Board and Regional Water Quality Control Boards

The SWRCB administers 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. RWCQBs 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

Municipal Separate Storm Sewer Systems (MS4)

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

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

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

Caltrans must implement a year-round program in all parts of the State to effectively control storm water and non-storm water discharges; and Caltrans storm water discharges must meet water quality standards through implementation of permanent and temporary (construction) Best Management Practices (BMPs), to the Maximum Extent Practicable, and other measures as the SWRCB determines to be necessary to meet the water quality standards.

To comply with the permit, Caltrans developed the Statewide Storm Water Management Plan (SWMP) to address storm water pollution controls related to highway planning, design, construction, and maintenance activities throughout California. The SWMP assigns responsibilities within Caltrans for implementing storm water management procedures and practices as well as training, public education and participation, monitoring and research, program evaluation, and reporting activities. The SWMP describes the minimum procedures and practices Caltrans uses to reduce pollutants in storm water and non-storm water discharges. It outlines procedures and responsibilities for protecting water quality, including the selection and implementation of Best Management Practices (BMPs). The proposed project will be programmed to follow the guidelines and procedures outlined in the latest SWMP to address storm water run-off.

Construction General Permit

Construction General Permit (Order No. 2009-009-DWQ), adopted on September 2, 2009, became effective on July 1, 2010. The permit regulates storm water discharges from construction sites that 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. By law, all storm water discharges associated with construction activity where clearing, grading, and excavation result in soil disturbance of at least one acre must comply with the provisions of the General Construction Permit. Construction activity that results in soil disturbances of less than one acre is subject to this Construction General Permit 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 storm water pollution prevention plans; to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the Construction General Permit.

The 2009 Construction General Permit separates projects into Risk Levels 1, 2, or 3. Risk levels are determined during the planning and design phases, and are based on potential erosion and transport to receiving waters. Requirements apply according to the Risk Level determined. For example, a Risk Level 3 (highest risk) project would require compulsory storm water run-off pH and turbidity monitoring, and before construction and after construction aquatic biological assessments during specified seasonal windows. For all projects subject to the permit, applicants are required to develop and implement an effective Storm Water Pollution Prevention Plan (SWPPP). In accordance with Caltrans Standard Specifications, a Water Pollution Control Plan (WPCP) is necessary for projects with DSA less than one acre.

Section 401 Permitting

Under Section 401 of the CWA, any project requiring a federal license or permit that may result in a discharge to a water of the United States must obtain a 401 Certification, which certifies that the project will be in compliance with state water quality standards. The most common federal permits triggering 401 Certification are CWA Section 404 permits issued by the USACE. The 401 permit certifications are obtained from the appropriate RWQCB, dependent on the project location, and are required before the 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 issue a set of requirements known as Waste Discharge Requirements (WDRs) under the State Water Code (Porter-Cologne Act) that define activities, such as the inclusion of specific features, effluent limitations, monitoring, and plan submittals that are to be implemented for protecting or benefiting water quality. WDRs can be issued to address both permanent and temporary discharges of a project.

Affected Environment

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 run-off 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 Alternatives 1, 2, and 3

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 (SWRCB, 2011).

The existing project site has approximately 15.74 acres of impervious surface. With the proposed improvements, the project site will have 23.55 acres of impervious surface. This includes the removal of roadway surfaces that will no longer be used. The project will 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 the result of increased erosion in the channel.

The project would result in a permanent increase in run-off, 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 recommends for drainage systems: Storm water run-off 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 standard curb and gutter throughout the project to maximize collection of storm water run-off,
- Caltrans or County standard drain inlets (with inlet stenciling) and manholes,
- Reinforced concrete pipes for storm water collection.

The proposed project is designed to incorporate these methods such that stormwater run-off from 50-year and 100-year rain events would be fully contained and drained through the proposed interchange and adjacent roadway storm water drainage systems.

No-Build Alternative

Under the No-Build Alternative no construction would take place and there would be no changes to the drainage system. Consequently, there would be no impacts to water quality and storm water run-off in the project area.

Avoidance, Minimization and/or Mitigation Measures

Avoidance and minimization measures for storm water are accomplished by implementation of approved BMPs, which are generally broken down into four categories; Pollution Prevention, Treatment, Construction and Maintenance BMPs. The treatment BMP objective for this project will 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 will be deployed under a contractor-prepared SWPPP. For maintenance BMPs, the project is located in El Dorado County MS4 area; therefore, drain inlet stenciling will be provided for all inlets within the project area.

A SWPPP will be developed and will 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 (California Department of Transportation 2003). BMPs and Water Pollution Control Plan requirements are assembled in compliance with the local Stormwater Management Plan and with the General Construction Permit and should be considered recommendations for inclusion on applicable plans prepared for the proposed project. All BMPs and mitigation measures will be prepared in collaboration with the project engineer, El Dorado

County, the local flood control district, and other regulatory agencies. Selection and design of permanent project BMPs will 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.

To ensure that the proposed project maintains or improves water quality, Build Alternatives 1, 2, and 3 are recommended to follow the avoidance, minimization, and/or mitigation measures noted below.

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. 2012-0011-DWQ, which was approved on July 1, 2013. A Notice of Intent or Notice of Construction will be submitted to the SWRCB along with the completed SWPPP.

Measure SWR-2: BMPs include any facilities and methods used to remove, reduce, or prevent storm water run-off 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 run-off. The SWPPP and NPDES compliant measures would ensure no adverse impacts would occur to water quality associated with each of the build alternatives.

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.

2.2.3 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." Topographic and geologic features are also protected under the California Environmental Quality Act (CEQA).

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

Affected Environment

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

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 by granitic rock.

The metamorphic belt of the structural framework of the Sierra Nevada is composed of 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 is largely comprised of 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 is composed 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, 2003). 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 (Clark 1970:117).

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 extends about a meter (approximately three feet) below the surface (United States Department of Agriculture [USDA] 2008).

The Ponderosa Road Interchange Improvement project site is located in a "Quarter Mile Buffer for More Likely to Contain Asbestos or Fault Line." In addition, to provide a site-specific assessment of the potential for naturally occurring asbestos (NOA) to be present on the project site, on-site observations for the presence of NOA was conducted. As noted in the *Initial Site Assessment – Ponderosa Road Interchange at US 50 Improvements Project – El Dorado County California* (Blackburn Consulting 2008), loose serpentine, a host rock for NOA was observed at one location at the project site.

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

Environmental Consequences

Build Alternatives 1, 2, and 3

Based on the discussion above in the Affected Environment Section, there is a low probability of impacts relating to seismic events. Adherence to Caltrans and county roadway design standards would minimize any potential geologic, or seismic related impacts.

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

No measures are required for avoidance, minimization and/or mitigation.

2.2.4 Paleontology

Regulatory Setting

Paleontology is a natural science focused on the study of ancient animal and plant life as it is preserved in the geologic record as fossils. A number of federal statutes specifically address paleontological resources, their treatment, and funding for mitigation as a part of federally authorized projects. 16 United States Code (USC) 431-433 (the "Antiquities Act") prohibits appropriating, excavating, injuring, or destroying any object of antiquity situated on federal land without the permission of the Secretary of the Department of Government having jurisdiction over the land. Fossils are considered "objects of antiquity" by the Bureau of Land Management, the National Park Service, the Forest Service, and other federal agencies. 16 United States Code (USC) 461-467 (the National Registry of Natural Landmarks) establishes the National Natural Landmarks (NNL) program. Under this program property owners agree to protect biological and geological resources such as paleontological features. Federal agencies and their agents must consider the existence and location of designated NNLs, and of areas found to meet the criteria for national significance, in assessing the effects of their activities on the environment under NEPA. 16 United States Code (USC) 470aaa (the Paleontological

Resources Preservation Act) prohibits the excavation, removal, or damage of any paleontological resources located on federal land under the jurisdiction of the Secretaries of the Interior or Agriculture without first obtaining an appropriate permit. The statute establishes criminal and civil penalties for fossil theft and vandalism on federal lands.

Affected Environment

El Dorado County prepared a section on Paleontological Resources for their General Plan EIR (May 2003). 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.

Environmental Consequences

No comprehensive paleontological studies have been conducted within the county and, as a result, no information is available regarding the sensitivity of certain areas in El Dorado County to contain such resources. While paleontological finds could occur in river and stream gravel deposits within the county, this possibility would not be expected and is remote. Consequently, paleontology is an area of research and concern generally not applicable to the county.

No impacts to paleontological resources are anticipated as a result of any of the proposed alternatives.

Avoidance, Minimization and/or Mitigation Measures

No measures are required for avoidance, minimization and/or mitigation.

2.2.5 Hazardous Waste/Materials

Regulatory Setting

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

The primary federal laws regulating hazardous wastes/materials are the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) and the Resource Conservation and Recovery Act of 1976 (RCRA). 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 (CERFA) of 1992
- Clean Water Act
- Clean Air Act

- Safe Drinking Water Act
- Occupational Safety and Health Act (OSHA)
- Atomic Energy Act
- Toxic Substances Control Act (TSCA)
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

In addition to the acts listed above, Executive Order (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.

California regulates hazardous materials, waste, and substances under the authority of the CA Health and Safety Code and is also authorized by the federal government to implement RCRA in the state. California law also addresses specific handling, storage, transportation, disposal, treatment, reduction, cleanup and emergency planning of hazardous waste. The Porter-Cologne Water Quality Control Act also restricts disposal of wastes and requires clean-up of wastes that are below hazardous waste concentrations but could impact ground and surface water quality. California regulations that address waste management and prevention and clean up contamination include Title 22 Division 4.5 Environmental Health Standards for the Management of Hazardous Waste, Title 23 Waters, and Title 27 Environmental Protection.

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

Affected Environment

A Hazardous Waste Initial Site Assessment was completed by Blackburn Consulting (January 2009) at the interchange area. The purpose of this assessment was to identify Recognized Environmental Conditions (REC) and potential RECs within and adjacent to the proposed improvement area which could affect the design, constructability, feasibility, and or/ the cost of the proposed project. A record search of federal, state and local databases and map review was conducted and a field survey was completed on August 28, 2008. The field review is conducted to visually confirm information gathered by aerial photos, database searches, and interviews are accurate and complete. No additional hazards were identified, as a result of the field review that were not already identified by previous research. An updated records search was obtained in 2015 by Dokken Engineering. The updated records search determined that one additional REC is located within project right of way. All other sites documented in the 2008 records search have not substantially changed since 2008; therefore, the 2008 results related to the potential for RECs within the project area remain valid.

The properties evaluated for RECs and/or Activity and Use Limitations (AULs) include existing County ROW and 45 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, polychlorinated biphenyl containing electrical transformers, underground storage tanks, hazardous materials storage, vehicle and equipment storage, petroleum based contaminated soils, asbestos containing materials (old buildings), and NOA. Based on the environmental assessment conducted for the proposed project, RECs that will likely be impacted are discussed in the Environmental Consequences section below.

Environmental Consequences

Six sites were identified within or adjacent to the project corridor that may potentially contain hazardous material (Table 17). The locations of these parcels are shown in Figure 11.

There are several parcels identified within the project limits that will not be required for either complete or partial ROW acquisition. Three of these parcels, ASB Auto Sales/Cal.Net (Formerly El Dorado Dodge Auto Dealership - Parcel 13, APN 070-280-39), Shingle Springs Honda (Parcel 38, APN 090-430-38) and Family RV, Riebe's Auto, Enterprise Rental (Formerly Auto Center Chevrolet - Parcel 39, APN 090-430-39) are sites that use and/or store hazardous materials in their daily operations. 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.

Table 17: Hazardous Waste Sites Within or Adjacent to the Project Corridor

Current Use Parcel, APN and Address	Potential Contaminant of Concern	Recommended Action	Risk [1]
Gold Harvest Cleaners, Parcel 43 APN 090-430-12 4009 Mother Lode Drive	VOCs [2] Dry Cleaning Operation	Due to the age of the facility, unknown VOC storage methods and proximity of this site to the project corridor, further review and investigation of potential VOC impacts shall occur. Investigation should include an in-depth record review, site inspection and interviews with the County Environmental Health Department and property owner. If no addition information is available, a Phase II subsurface investigation will be needed. (HW-1). The subsurface investigation shall include soil and shallow ground water sample collection analysis. In the event that VOC levels exceed the statewide standard during testing, measure HW-2 will remediate hazardous soils and/or groundwater.	High
Gold Harvest Valero Service Station, Parcel 43 APN 090-430-12 4021 Mother Lode Drive	UST [3]	Service stations are a principle concern for subsurface contamination. Due to the age of the station's USTs and the proximity of this site to the project corridor, further review and investigation of potential petroleum hydrocarbon impacts shall occur. Investigation should include an in-depth record review, site inspection and interviews with the County Environmental Health Department and property owner. If no addition information is available, a Phase II subsurface investigation will be needed (HW-1). The subsurface investigation shall include soil and shallow ground water sample collection analysis. In the event that	High

Current Use Parcel, APN and Address	Potential Contaminant of Concern	Recommended Action	Risk [1]
		hydrocarbon levels exceed the statewide standard during testing, measure HW-1b will remediate any subsurface contamination.	
Halk Equipment Rentals, Parcel 26 APN 109-040-40 4064 Durock Road	UST	Investigation of potential petroleum hydrocarbon impacts where right-of-way will be acquired shall occur. Investigation should include an in-depth record review, site inspection and interviews with the County Environmental Health Department and property owner. If no addition information is available, a Phase II subsurface investigation will be needed (HW-1). The subsurface investigation shall include soil and shallow ground water sample collection analysis from the right-of-way acquisition area. In the event that hydrocarbon levels exceed the statewide standard during testing, measure HW-2 will remediate any subsurface contamination.	High
Old Home site, Parcel 12 APN 070-250-15	Heating Oil Tank, ACM [4], LCP [5]	A site visit to investigate the potential presence of heating oil tanks, asbestos containing material and lead containing paint or other contamination issues associated with the remains of a home site is recommended.	Low
Shingle Springs 76 Service Station CFLLC #7237 APN 090-430-42 4047 Shingle Springs Drive*	HAZNET CUPA	Storage, bulking and/or transfer of hazardous materials off-site. Underground storage of gasoline located within project right-of-way.	Low
Parcel 1 APN 070-270-24 APN 070-270-31 APN 070-270-32 Parcel 2 APN 070-270-29 Parcel 3 APN 070-270-20 Parcel 4 No APN available	Historic Lumber Yard	This area was indicated as a historic lumber yard in 1952 aerial photographs. One large building associated with the lumber yard was located on Parcel 1 and another was located on the northwest section of Parcel 3. A lumber storage area was located throughout Parcels 2 and 4. Historic lumber yard are known to have used hazardous materials such as copper, chromium and arsenic as wood preservatives. Contamination is possible from both pressure treatment operations and/or leaching from stored lumber, as well as other activities not visible on aerial photographs. Further investigation to define the historic use of the site and potential contamination issues shall occur. If no addition information is available, a Phase II subsurface investigation will be needed (HW-1). In the event that heavy metal levels exceed the statewide standard during testing, measure HW-2 will remediate any hazardous soils and/or groundwater.	Low

[1] Risk levels assigned to each site are based on the Caltrans Risk Management Handbook (2nd edition, May 2007) based on the probability of occurring and potential impacts.
[2] VOC = Volatile organic compounds
[3] UST = Underground storage tank
[4] ACM = Asbestos containing material
[5] LCP = Lead containing paint
* The Shingle Springs 76 Service Station was built in 2010 and included as an additional REC in the 2015 records search. All other findings from the 2008 records search are still considered active sites.

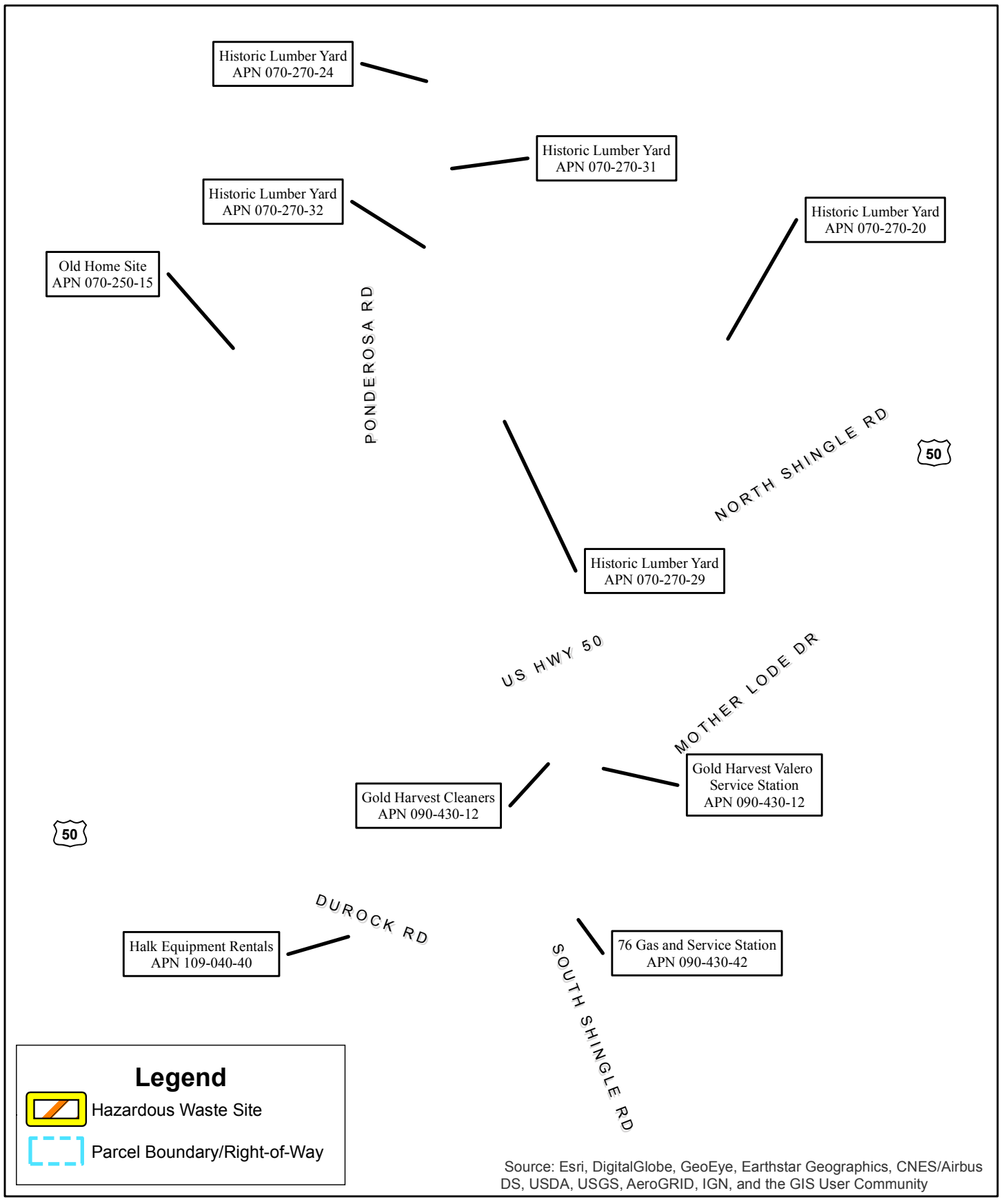

FIGURE 11
HAZARDOUS WASTE SITES
U.S. 50/Ponderosa Interchange Improvements Project
District 3-Eld-50 (PM 8.3/8.7)
Federal Project # EA 03-2E550
El Dorado County, California

General Contaminations

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 will be required.

Aerially Deposited Lead (ADL) has been found to occur in soils adjacent to highways. The lead is from historical use of leaded gasoline and subsequent exhaust emissions. If improvement work is proposed within existing Caltrans ROW at U.S. 50, the potential for ADL should be evaluated. An appropriate soil management plan will need to 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.

Asbestos occurs naturally in many Sierra foothill counties, including El Dorado County. In any area of NOA it is likely that there will be some low level risk associated with background concentrations of asbestos. During surface reconnaissance of the project corridor, no outcrops containing serpentinite (a host rock for NOA), or significant bands of fibrous minerals within the visible bedrock. However, loose serpentinite was observed at one location on the surface of a cut slope along North Shingle Road. Mapping of NOA shows the project corridor within an ultramafic rock area, and near mapped faults and other areas known to contain NOA. 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” based on a Department of Conservation Mines and Geology Report (2000). While this does not prove NOA is absent from, or present at, the project site, it indicates a potential for NOA to be present at the project site. Consequently, prior to construction an Asbestos Dust Mitigation Plan will be obtained from the Air Quality Management Departments, and will be implemented to ensure that impacts from NOA are not substantial. Accordingly, impacts related to asbestos exposure would be less than significant with mitigation incorporated. To ensure that the proposed project does not cause an impact related to NOA during construction, Build Alternatives 1, 2, and 3 are recommended to follow the below avoidance, minimization, and/or mitigation measures.

According to PG&E, electrical transformers may exist within the project study area that were installed prior to July 1979 and, therefore, may contain PCBs at levels greater than 50 parts per million (ppm). The proposed project may require relocation of the utility poles on which the transformers are mounted. If relocation is necessary, the utility poles, associated utility lines, and transformers would either be moved to new locations or placed underground as part of a newly created underground utility district. In either case, the PCB-containing transformers would be removed and replaced according to PG&E’s standard handling procedures that include safety measures to contain PCBs substances and properly dispose of them. Accordingly, impacts related to PCBs would be less than significant.

Avoidance Minimization and/or Mitigation Measures

Measure HW-1: All parcels listed in Table 17 will require a Phase II Environmental Site Assessment prior to completion of final design. This investigation shall include an in-depth record review, site inspection and interviews with the County Environmental Health Department and property owner. If these preliminary investigations are not able to determine the presence or absence of hazardous materials, subsurface investigations will be necessary. Subsurface investigations shall include soil and shallow ground water sample collection analysis.

Measure HW-2: In the event that volatile organic compounds, hydrocarbons, or heavy metal levels exceed the statewide standard during testing, the contaminated soil shall 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 shall be managed appropriately on site per the Department of Toxic Substance Control protocol to reduce the risk of accidental release of hazardous materials.

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

Measure HW-4: An Aerially Deposited Lead (ADL) evaluation shall be prepared for any work within existing Caltrans ROW at U.S. 50. An appropriate soil management plan shall 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.

Measure HW-5: 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.

2.2.6 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 is its companion state law. These laws, and related regulations by the United States Environmental Protection Agency (U.S. EPA) and California Air Resources Board (ARB), set standards for the concentration of pollutants in the air. At the federal level, these standards are called National Ambient Air Quality Standards (NAAQS). NAAQS and state ambient air quality standards 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 state and federal regulatory schemes also cover toxic air contaminants (air toxics); some criteria pollutants are also air toxics or may include certain air toxics in their general definition.

Federal air quality standards and regulations provide the basic scheme for project-level air quality analysis under the National Environmental Policy Act (NEPA). In addition to this environmental analysis, a parallel "Conformity" requirement under the FCAA also applies.

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 attainting 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. U.S. EPA regulations at 40 Code of Federal Regulations (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 TIP). 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), Federal Highway Administration (FHWA), and Federal Transit Administration (FTA), make determinations that the RTP and FTIP are in conformity with the SIP for achieving the goals of the FCAA. 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 FTIP, then the proposed project meets regional conformity requirements for purposes of project-level analysis.

Conformity analysis at the project-level includes verification that the project is included in the regional conformity analysis and a "hot-spot" analysis if an area is "nonattainment" or "maintenance" for carbon monoxide (CO) and/or particulate matter (PM_{10} or $PM_{2.5}$). A region is "nonattainment" if one or more of the monitoring stations in the region measures a violation of the relevant standard and the U.S. EPA officially designates the area nonattainment. Areas that were previously designated as nonattainment areas but subsequently meet the standard may be officially redesignated to attainment by U.S. EPA and are then called "maintenance" areas. "Hot-spot" analysis is essentially the same, for technical purposes, as CO or particulate matter analysis performed for NEPA purposes. Conformity does include some specific procedural and documentation standards for projects that require a hot-spot analysis. In general, projects must not cause the "hot-spot" related standard to be violated, and must not cause any increase in the number and severity of violations in nonattainment areas. If a known CO or particulate matter violation is located in the project vicinity, the project must include measures to reduce or eliminate the existing violation(s) as well.

Affected Environment

This *Air Quality Technical Report* (June 2009) was prepared by KD Anderson and Associates to present an evaluation of the construction-related and operational impacts of the proposed project on the air quality environment.

The Ponderosa Road Interchange Improvement 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. El Dorado 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 El Dorado 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. Highway 50.

The project site is designated a state and federal attainment area (the area has attained the state and federal air quality standards) for CO, a federal non-attainment area for O_3, and a federal unclassified area for inhalable PM smaller than 10 microns in diameter (designated PM_{10}). The project site is in a state non-attainment area (the area has not attained the state air quality standards) for O_3 and PM_{10}. The project site is in an unclassified or attainment area for federal and state standards for fine PM smaller than 2.5 microns in diameter ($PM_{2.5}$). Table 18 summarizes the air quality attainment status designations within the mountain counties air basin portion of El Dorado County.

Table 18: Air Quality Attainment Status Designations - Mountain Counties Air Basin 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)	Unclassified/Attainment	Unclassified

Source: California Air Resources Board (http://www.arb.ca.gov)

Table 19 indicates the federal and state standard for criteria air pollutants.

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”, ROG and NO_x, in the presence of sunlight.

In addition to criteria pollutants, a pollutant of concern in the vicinity of the project site is NOA. Emissions of NOA have been attributed to soil-disturbing activities, including construction activities. The Ponderosa Road Interchange Improvement 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 indicates a potential for NOA to be present at the project site.

Table 19: 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/m^3)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m^3)		0.070 ppm (137 µg/m^3)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		—		
Fine Particulate Matter (PM2.5)[9]	24 Hour	—	—	35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12.0 µg/m^3	15 µg/m^3	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m^3)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemiluminescence	100 ppb (188 µg/m^3)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)		0.053 ppm (100 µg/m^3)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	—	Ultraviolet Flourescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m^3)	
	24 Hour	0.04 ppm (105 µg/m^3)		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/m^3	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m^3 (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m^3		
Visibility Reducing Particles[14]	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

See footnotes on next page ...

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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 December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. 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 $\mu g/m^3$. 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.

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Environmental Consequences

Regional Air Quality Conformity

The proposed project is in the SACOG 2016 MTP/SCS under the Identification numbers ELD19170, ELD19244, and ELD19180. The proposed project has been found to conform by SACOG on September 15, 2016. The project is also included in the SACOG 2017/2020 Metropolitan Transportation Improvement Program. The SACOG 2015/2018 Metropolitan Transportation Improvement Program was found to conform by FHWA and the Federal Transit Administration on December 16, 2016. The design concept and scope of the proposed project is consistent with the project description in the 2016 MTP/SCS, the 2017/2020 MTIP and the assumptions in SACOG's regional emissions analysis.

The Ponderosa Road Interchange Improvement project is expected to result in a reduction in vehicle delay. However, the project is not expected to result in a substantial redistribution of vehicle travel, nor is the project expected to result in a change in the number of vehicle trips. As noted in the *Traffic Report for the US Highway 50 / Ponderosa Road Intersection Project Study Report / Project Report* (Fehr & Peers Transportation Consultants 2009),

> "Although the lane configurations and traffic control vary between design year 'no project' and 'with project' conditions, the projected intersection traffic volumes are generally the same except for specific turning movements."

Because the Ponderosa Road Interchange Improvement project would not substantially redistribute vehicle travel and would not generate vehicle trips, the project-related change in ozone precursor emissions is not quantified for this *Air Quality Technical Report*.

Since the Ponderosa Road Interchange Improvement project would not generate additional vehicle trips and would not substantially redistribute vehicle travel, the project is not expected to result in a substantial net change in vehicle travel and, thus, is not expected to have a substantial effect on regional ozone precursor emission levels. Therefore, all of the project alternatives are considered to have a less than significant impact on regional air quality.

Project Level Conformity

Carbon Monoxide Analysis

The potential impact of the Ponderosa Road Interchange Improvement project on local CO levels was assessed by applying screening procedures described in the *Transportation Project-Level Carbon Monoxide Protocol* (Institute of Transportation Studies, University of California, Davis 1996) and then, if indicated by the screening procedures, conducting detailed microscale air quality dispersion modeling.

The screening procedure focused on the effects of the proposed project on intersection operations. Since elevated CO concentrations are associated with traffic congestion, a project is considered to have no potential for significant impacts on CO concentrations if it does not substantially contribute to excessive traffic congestion.

According to the *Transportation Project-Level Carbon Monoxide Protocol*, projects that would result in operation of a signalized intersection worsening from LOS D or better to LOS E or F are considered to have the potential for resulting in a significant CO air quality impact. In addition, projects that would result in the worsening of a signalized intersection already operating at LOS E or F are considered to have the potential for resulting in a significant CO air quality impact.

Projects that would meet these criteria are considered to have the potential for resulting in a significant CO air quality impact; however, detailed dispersion modeling is not needed for projects that do not meet these criteria. Projects that do not meet these criteria are considered to have a less than significant CO air quality impact.

In those cases where microscale dispersion modeling of CO concentrations was conducted, the Ponderosa Road Interchange Improvement project is considered to have a significant impact if it would result in forecasted exceedances of the CO air quality standard. The project is considered to have less than significant impact if it would not result in forecasted exceedances of the CO standard.

Carbon Monoxide

Build Alternative 1

All of the signalized study intersections under this alternative would operate at LOS D or better. Alternative 1 does not have the potential to result in a significant CO air quality impact; therefore, this impact is considered less than significant and CALINE4 modeling and mitigation measures are not required.

Build Alternative 2

All of the signalized study intersections would operate at LOS D or better under 2035 Alternative 2 conditions. Alternative 2 does not have the potential to result in a significant CO air quality impact; therefore, this impact is considered less than significant, and CALINE4 modeling and mitigation measures are not required.

Build Alternative 3

The intersection of South Shingle Springs Road & U.S. 50 Eastbound Ramps/Mother Lode Drive would operate at LOS F under 2035 Alternative 3 conditions. As a result, this scenario was analyzed with the CALINE4 microscale dispersion model. The results of the CALINE4 modeling are presented in Table 20.

Under 2035 Alternative 3 conditions, both one-hour average and eight-hour average CO concentrations would be below the CO air quality standards at all the receptors. The highest CO concentrations would be at Receptor 10, the Gold Harvest Cleaners. At this location, the one-hour average CO concentration would be 1.1 ppm (parts per million), and the eight-hour average CO concentration would be 0.8 ppm. Because CO concentrations would be below the CO air quality standards, this impact is considered to be less than significant, and no mitigation measures are required.

No-Build Alternative

The intersection of South Shingle Springs Road and U.S. 50 Eastbound Ramps/Mother Lode Drive would operate at LOS F under 2035 No-Build conditions. As a result, this scenario was analyzed with the CALINE4 microscale dispersion model.

The CALINE4 model estimate CO concentration at specific locations. These locations are referred to as "receptors," and represent specific locations in the study area. For the air quality report, receptors were located at the following locations (locations are depicted in Figure 12):

1. Happy Kids Daycare & Preschool - 3900 Ponderosa Road
2. El Dorado County Offices/GHD (Formerly Carlton Engineering) - 3883 Ponderosa Road
3. In Shape Health Club Tennis Courts (Formerly Millennium Sports Club)
4. Gold Country Foods - 3932 Ponderosa Road
5. Cal.Net/ASB Auto Sales (Former Carmean Dodge) - 4101 Wild Chaparral Drive
6. Shingle Springs Subaru (Formerly Shingle Springs Nissan & Subaru) - 4045 Wild Chaparral Drive
7. Retail Commercial Land Uses - 4020 Durock Road
8. Retail Commercial Land Uses - 4050 Durock Road
9. Halk Equipment Rental - 4064 Durock Road
10. Gold Harvest Cleaners - 4009 Mother Lode Road
11. Shingle Springs Honda - 4070 Mother Lode Road
12. Retail Commercial Land Uses - 4052 Mother Lode Road
13. Retail Commercial Land Uses (Formerly Family Chevrolet Cadillac) - 4050 Mother Lode Road
14. Retail Commercial Land Uses (Formerly May Wah Restaurant - 4031 South Shingle Springs Road
15. Discount Food & Liquor - 4031 South Shingle Springs Road
16. Commercial Land Uses - 4151 South Shingle Springs Road

A summary of the results of the CALINE4 CO analysis is presented in Table 20. Estimated CO concentrations at each of the receptor locations are presented.

Table 20: CO CALINe4 Model Results

Receptor	Existing Conditions		2035 No Project Conditions		2035 Plus Alternative 3	
	1 Hour Average	8 Hour Average	1 Hour Average	8 Hour Average	1 Hour Average	8 Hour Average
1. Happy Kids Daycare & Preschool 3900 Ponderosa Road	2.0	1.4	1.0	0.7	1.0	0.7
2. Carlton Engineering 3883 Ponderosa Road	2.0	1.4	1.0	0.7	1.0	0.7
3. Millennium Sports Club Tennis Courts	2.0	1.4	1.0	0.7	1.0	0.7
4. Gold Country Foods 3932 Ponderosa Road	2.0	1.4	1.0	0.7	1.0	0.7
5. Former Carmean Dodge 4101 Wild Chaparral Drive	2.1	1.5	1.0	0.7	1.0	0.7
6. Shingle Springs Nissan & Subaru 4045 Wild Chaparral Drive	2.1	1.5	1.0	0.7	1.0	0.7
7. Retail Commercial Land Uses 4020 Durock Road	2.1	1.5	1.0	0.7	1.0	0.7
8. Retail Commercial Land Uses 4050 Durock Road	2.1	1.5	1.0	0.7	1.0	0.7
9. Halk Equipment Rental 4064 Durock Road	2.2	1.5	1.0	0.7	1.0	0.7
10. Gold Harvest Cleaners 4009 Mother Lode Road	2.3	1.6	1.1	0.8	1.1	0.8
11. Shingle Springs Honda 4070 Mother Lode Road	2.2	1.5	1.0	0.7	1.0	0.7
12. Retail Commercial Land Uses 4052 Mother Lode Road	2.2	1.5	1.0	0.7	1.0	0.7
13. Family Chevrolet Cadillac 4050 Mother Load Road	2.2	1.5	1.0	0.7	1.0	0.7
14. May Wah Restaurant 4031 South Shingle Road	2.3	1.6	1.0	0.7	1.0	0.7
15. Discount Food & Liquor 4031 South Shingle Road	2.2	1.5	1.0	0.7	1.0	0.7
16. Commercial Land Uses 4151 South Shingle Road	2.2	1.5	1.0	0.7	1.0	0.7

Notes: All values are in parts per million of carbon monoxide (CO). The location of the receptors is shown on Figure 6.
State one-hour standard for CO is 20 parts per million. State eight-hour standard for CO is 9 parts per million.
Source: CALINE4 microscale dispersion model, Fehr & Peers Transportation Consultants 2008, KD Anderson & Associates.

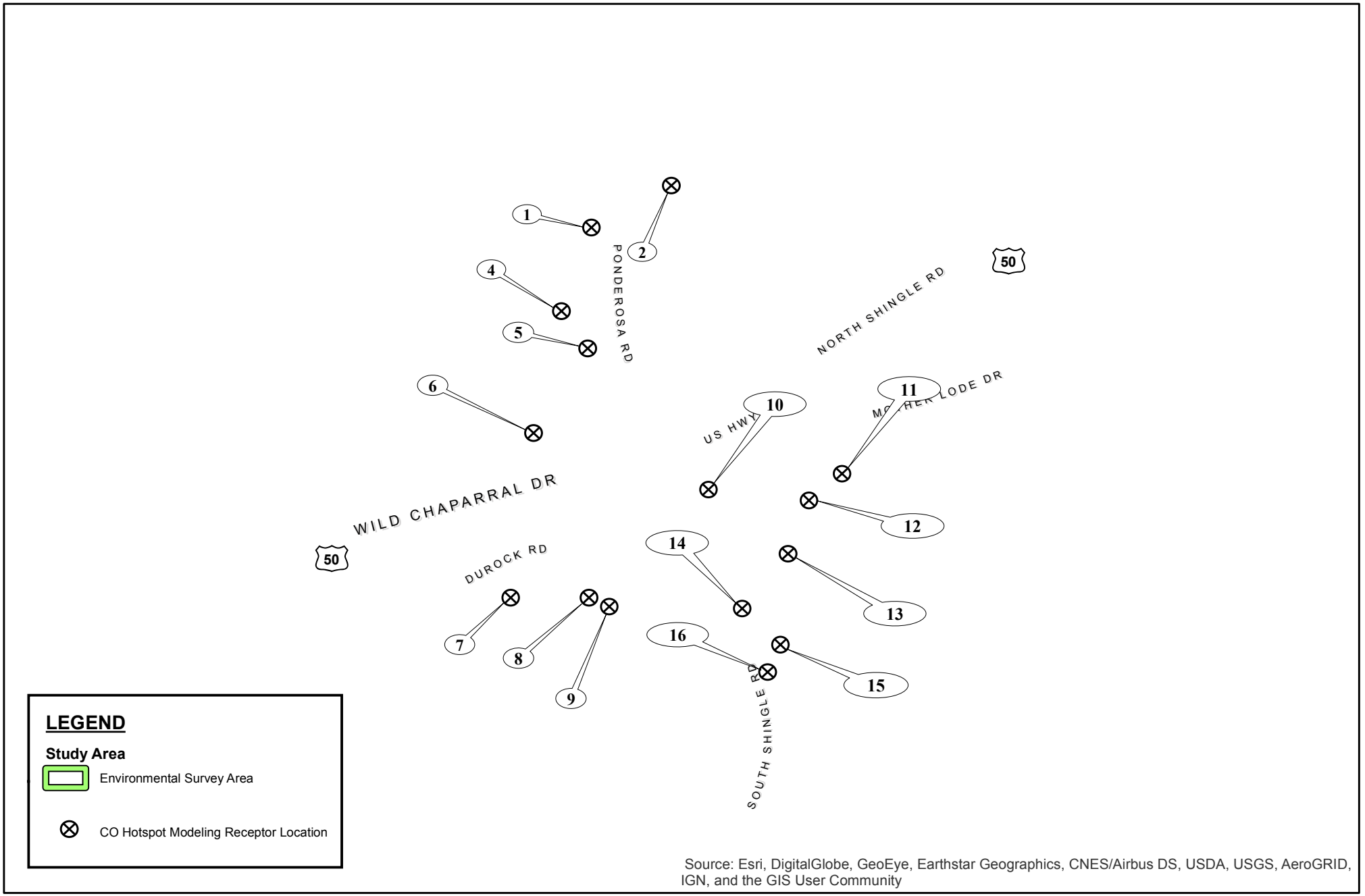


FIGURE 12
CO HOTSPOT MODELING RECEPTOR LOCATIONS
U.S. 50/Ponderosa Interchange Improvements Project
District 3-Eld-50 (PM 8.3/8.7)
Federal Project # EA 03-2E550
El Dorado County, California

Under 2035 No Build Alternative, both one-hour average and eight-hour average CO concentrations would be below the CO air quality standards at all the receptors. The highest CO concentrations would be at Receptor 10, the Gold Harvest Cleaners. At this location, the one-hour average CO concentration would be 1.1 ppm, and the eight-hour average CO concentration would be 0.8 ppm. Because CO concentrations would be below the CO air quality standards, this impact is considered to be less than significant, and no mitigation measures are required.

Fine Particulate Matter ($PM_{2.5}$)

The project is located within an unclassified/attainment area for the federal $PM_{2.5}$ standards. The USEPA does not require hot-spot analyses, qualitative or quantitative, for projects that are not a project of air quality concern (POAQC) (i.e. not listed in 40 CFR 93.123(b)). The project does not qualify as a POAQC because it is an interchange improvement project and is not listed as an example of the types of projects that would qualify in the Transportation Conformity Guidelines for Qualitative Hot-spot Analyses in $PM_{2.5}$ and PM_{10} Nonattainment and Maintenance Areas (2006) issued by EPA and FHWA.

On August 24, 2011 the Sacramento Area Council of Governments Regional Planning Partnership reviewed the project and concurred that the project is not a POAQC (see Appendix G). Additionally, it is not an air quality concern for $PM_{2.5}$ for the following reasons:

1. The proposed project is not a new highway project. The proposed project is an interchange improvement project and is designed to improve current and future condition levels of service. Based on the *Traffic Report for the US Highway 50/Ponderosa Road Intersection* the traffic volumes along Ponderosa Road 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 existing and projected future traffic volumes and average daily traffic would not change due to the project.

2. The proposed project does not affect intersections that are at LOS D, E, or F with a significant number of diesel vehicles. Based on the *Traffic Report for the US Highway 50/Ponderosa Road Intersection,* the proposed project would reduce the delay and improve LOS at the proposed interchange.

3. The proposed project does not include the construction of a new bus or rail terminal.

4. The proposed project does not expand an existing bus or rail terminal.

5. The proposed project is not in or affecting locations, areas, or categories of sites 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.

Therefore, the proposed project meets the Clean Air Act requirements and 40CFR93.116 without any explicit hot spot analysis. The proposed project would not create a new or worsen an existing PM_{10} or $PM_{2.5}$ violation.

Construction Impacts

Implementation of the Ponderosa Road Interchange Improvement 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 El Dorado County Air Quality Management District (AQMD) document *Guide to Air Quality Assessment – Determining Significance of Air Quality Impacts Under the California Environmental Quality Act* (AQMD 2002).

Ozone Precursors

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

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

These values are from Table 3.2 of the *Guide to Air Quality Assessment – Determining Significance of Air Quality Impacts Under the California Environmental Quality Act*.

Air pollutant emissions associated with construction of the Ponderosa Road Interchange Improvement project were estimated by applying version 6.3.1 of the *Roadway Construction Emissions Model* (Sacramento Metropolitan Air Quality Management District 2008). This model, developed for the Sacramento Metropolitan Air Quality Management District, specifically analyzes emissions associated with construction of roadway improvement projects.

Table 21 depicts the construction-related emission by alternative for the proposed project.

Build Alternative 1

During the construction of Alternative 1, the largest amount of emissions generated would be during Phase 2. During this phase, the largest amounts of ozone precursor emissions generated would be:

- 6.9 ppd of ROG; and
- 58.8 ppd of NO_x.

Since these amounts of emissions are less than the significance thresholds, the generation of construction-related ozone precursor emissions is considered a less than significant impact. No mitigation measures are required.

Build Alternative 2

During the construction of Alternative 2, the largest amount of emissions generated would be during Phase 2. During this phase, the largest amounts of ozone precursor emissions generated would be:

- 6.9 ppd of ROG; and
- 58.8 ppd of NO_x.

Table 21: Construction Related Emissions of ROG and NO_x

Alternative	Phase	Construction Activity	ROG	NO_x
1	1	Grubbing/Land Clearing	3.8	32.0
		Grading/Excavation	4.2	33.4
		Drainage/Utilities/Sub-Grade	3.6	27.9
		Paving	2.8	16.1
		Maximum	4.2	33.4
1	2	Grubbing/Land Clearing	6.9	58.8
		Grading/Excavation	6.2	48.8
		Drainage/Utilities/Sub-Grade	4.2	30.7
		Paving	4.6	26.8
		Maximum	6.9	58.8
1	3	Grubbing/Land Clearing	3.3	25.6
		Grading/Excavation	3.8	27.5
		Drainage/Utilities/Sub-Grade	3.3	23.2
		Paving	2.5	14.3
		Maximum	3.8	27.5
2	1	Grubbing/Land Clearing	3.8	32.0
		Grading/Excavation	4.2	33.4
		Drainage/Utilities/Sub-Grade	3.6	27.9
		Paving	2.8	16.1
		Maximum	4.2	33.4
2	2	Grubbing/Land Clearing	6.9	58.8
		Grading/Excavation	6.2	48.8
		Drainage/Utilities/Sub-Grade	4.2	30.7
		Paving	4.6	26.8
		Maximum	6.9	58.8
2	3	Grubbing/Land Clearing	3.3	25.6
		Grading/Excavation	3.8	27.5
		Drainage/Utilities/Sub-Grade	3.3	23.2
		Paving	2.5	14.3
		Maximum	3.8	27.5
2	4	Grubbing/Land Clearing	2.9	22.7
		Grading/Excavation	3.2	23.6
		Drainage/Utilities/Sub-Grade	2.8	20.5
		Paving	1.7	9.9
		Maximum	3.2	23.6
3	1	Grubbing/Land Clearing	3.6	31.6
		Grading/Excavation	4.1	32.9
		Drainage/Utilities/Sub-Grade	3.5	27.5
		Paving	2.7	15.7
		Maximum	4.1	32.9
3	2	Grubbing/Land Clearing	3.5	28.8
		Grading/Excavation	4.0	31.3
		Drainage/Utilities/Sub-Grade	3.5	26.3
		Paving	2.7	15.4
		Maximum	4.0	31.3

Source: Roadway Construction Emissions Model, version 6.3.1
Note: ROG = reactive organic gases. NO_x = nitrogen oxides. All values are in pounds per day.

Because these amounts of emissions are less than the significance thresholds, the generation of construction-related ozone precursor emissions is considered a less than significant impact. No mitigation measures are required.

Build Alternative 3

During the construction of Alternative 3, the largest amount of emissions generated would be during Phase 1. During this phase, the largest amounts of ozone precursor emissions generated would be:

- 4.1 ppd of ROG; and
- 32.9 ppd of NO_x.

Because these amounts of emissions are less than the significance thresholds, the generation of construction-related ozone precursor emissions is considered a less than significant impact. No mitigation measures are required.

No-Build Alternative

The No Build Alternative would not result in a change to existing air pollutant emissions. No construction-related emissions would be released used this alternative.

Fugitive Dust 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 in Avoidance, Minimization and/or Mitigation would allow the Ponderosa Road Interchange Improvement project to be below the AQMD threshold of significance for construction-related particulate matter emissions.

Build Alternatives 1, 2, and 3

Construction of the Ponderosa Road Interchange Improvement project would generate fugitive dust PM_{10} and $PM_{2.5}$ emissions. Based on procedures presented in the *Guide to Air Quality Assessment – Determining Significance of Air Quality Impacts Under the California Environmental Quality Act* (AQMD 2002), these emissions are considered less than significant with implementation of minimization measures included below.

No-Build Alternative

The No Build Alternative would not result in a change to existing air pollutant emissions. No construction-related emissions would be released used this alternative.

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 significance of diesel exhaust particulate matter emissions was identified using estimates of diesel fuel use during construction of Alternative 2 of the Ponderosa Road Interchange Improvement project. Alternative 2 was analyzed because it would involve more construction activity than either Alternative 1 or Alternative 3.

Build Alternative 2

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. As noted earlier, Alternative 2 has been analyzed because it would result in more construction activity than Alternative 1 or Alternative 3. Each phase of Alternative 2 construction would result in less than 91 percent of the diesel fuel used (assuming 1996 or later model year equipment engines). This diesel fuel usage would result in a significance threshold of approximately 34,000 gallons of diesel fuel. This is within the requirements of Best Available Control Technology and no addition measures are required for Build Alternative 2.

Since Diesel Exhaust Particulate Matter impacts would be less than significant under Build Alternative 2, and Build Alternatives 1 and 3 would have an even smaller impact than Build Alternative 2, thus, a detailed description of those alternatives is not necessary.

No-Build Alternative

The No Build Alternative would not result in a change to existing air pollutant emissions. No construction-related emissions would be released used this alternative.

Naturally Occurring Asbestos (NOA)

The map, *Asbestos Review Areas – Western Slope – County of El Dorado – State of California* 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 & Geology OPEN-FILE REPORT 2002-002); and
- Quarter Mile Buffer for More Likely to Contain Asbestos or Fault Line.

The Ponderosa Road Interchange Improvement project site is located in a "Quarter Mile Buffer for More Likely to Contain Asbestos or Fault Line." In addition, to provide a site-specific assessment of the potential for NOA to be present on the project site, on-site observations for the presence of NOA was conducted. As noted in the *Initial Site Assessment – Ponderosa Road Interchange at US 50 Improvements Project – El Dorado County California* (Blackburn Consulting 2008), loose serpentine, a host rock for NOA was observed at one location at the project site.

Build Alternatives 1, 2, and 3

The Ponderosa Road Interchange Improvement project site is located in a "Quarter Mile Buffer for More Likely to Contain Asbestos or Fault Line" and loose serpentine has been observed at the project site. Based on these findings, additional monitoring and mitigation will be required to ensure that impacts relating to NOA are reduced to a less than significant level. Avoidance, minimization and/or mitigation measures are included below.

No-Build Alternative

The No Build Alternative would not result in a change to existing air pollutant emissions. No construction-related emissions would be released used this alternative.

Mobile Source Air Toxins (MSAT)

The purpose of this project is to reduce current congestion and meet anticipated future demands of motor vehicle traffic in the project area while improving non-motorized movements by improving the facilities of the U.S. 50/Ponderosa Road Interchange. This project will not result in any meaningful changes in traffic volumes, vehicle mix, location of the existing facility, or any other factor that would cause an increase in emissions impacts relative to the no-build alternative. As such, this project will generate minimal air quality impacts for Clean Air Act criteria pollutants and has not been linked with any special MSAT concerns. Consequently, this effort is exempt from analysis for MSATs.

Moreover, EPA regulations for vehicle engines and fuels will cause overall MSATs to decline significantly over the next 20 years. Even after accounting for a 64 percent increase in vehicle miles traveled (VMT), FHWA predicts MSATs will decline in the range of 57 percent to 87 percent, from 2000 to 2020, based on regulations now in effect, even with a projected 64 percent increase in VMT. This will both reduce the background level of MSATs as well as the possibility of even minor MSAT emissions from this project.

Avoidance, Minimization and/or Mitigation Measures

The following measures shall be implemented under each of the Build Alternatives in order to reduce construction-related air quality impacts to a less than significant level.

Measure AQ-1: During construction, all activities shall 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

Measure AQ-2: Prior to construction, an asbestos dust mitigation plan shall be submitted to the Air Quality Management District for review and approval. All BMPs and minimization measures required by the AQMD shall be adhered to throughout the duration of construction activities.

Climate Change

Neither the United States Environmental Protection Agency (U.S. EPA) nor the Federal Highway Administration (FHWA) has issued explicit guidance or methods to conduct project-level greenhouse gas analysis. FHWA emphasizes concepts of resilience and sustainability in highway planning, project development, design, operations and maintenance. Because there have been requirements set forth in California legislation and executive orders on climate change, the issue is addressed in a separate California Environmental Quality Act (CEQA) discussion at the end of this chapter. The CEQA analysis may be used to inform the National Environmental Policy Act (NEPA) determination for the project.

2.2.7 Noise

Regulatory Setting

The National Environmental Policy Act (NEPA) of 1969 and the California Environmental Quality Act (CEQA) provide the broad basis for analyzing and abating highway traffic noise effects. The intent of these laws is to promote the general welfare and to foster a healthy environment. The requirements for noise analysis and consideration of noise abatement and/or mitigation, however, differ between NEPA and CEQA.

California Environmental Quality Act

CEQA requires a strictly baseline versus build analysis to assess whether a proposed project will have a noise impact. If a proposed project is determined to have a significant noise impact under CEQA, then CEQA dictates that mitigation measures must be incorporated into the project unless those measures are not feasible. The CEQA noise analysis is included at the end of this section.

National Environmental Policy Act and 23 CFR 772

For highway transportation projects with FHWA (and Caltrans, as assigned) involvement, the federal-Aid Highway Act of 1970 and the associated 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). The following table lists the noise abatement criteria for use in the NEPA 23 CFR 772 analysis.

Table 22: Noise Abatement

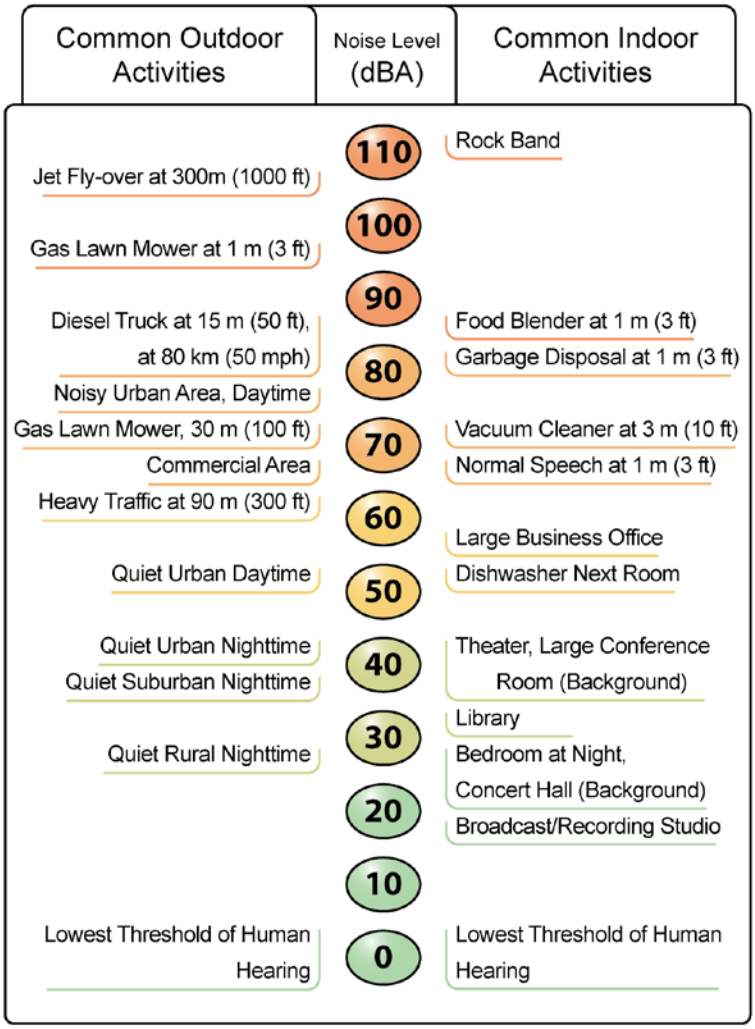
Activity Category	NAC, Hourly A-Weighted Noise Level, Leq(h)	Description of activity category
A	57 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to 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.
G	No NAC—reporting only	Undeveloped lands that are not permitted.
[1] Includes undeveloped lands permitted for this activity category.		

Table 23 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.

According to Caltrans' *Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects, May 2011*, a noise impact occurs when the predicted future noise level with the project substantially exceeds the existing noise level (defined as a 12 dBA or more increase) or when the future noise level with the project approaches or exceeds the NAC. Approaching the NAC is defined as coming within 1 dBA of the NAC.

If it is determined that the project will have noise impacts, then potential abatement measures must be considered. Noise abatement measures that are 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.

Table 23: Noise Levels of Common Activities



Caltrans' *Traffic Noise Analysis Protocol* sets forth the criteria for determining when an abatement measure is reasonable and feasible. Feasibility of noise abatement is basically an engineering concern. A minimum 7 dBA reduction in the future noise level must be achieved for an abatement measure to be considered feasible. Other considerations include topography, access requirements, other noise sources, and safety considerations. The reasonableness determination is basically a cost-benefit analysis. Factors used in determining whether a proposed noise abatement measure is reasonable include: residents' acceptance and the cost per benefited residence.

El Dorado County General Plan Noise Element

Noise level criteria pertaining to project generated noise levels are contained within the 2004 El Dorado County General Plan Noise Element. The following is a summary of the Noise Element Goals, Objectives, Policies and Criteria, which are relevant to this project.

Goal 6.5: Acceptable Noise Levels

Ensure that County residents are not subjected to noise beyond acceptable levels.

Objective 6.5.1: Protection of Noise-Sensitive Development

Protect existing noise-sensitive developments (e.g., hospitals, schools, churches and residential) from new uses that would generate noise levels incompatible with those uses and, conversely, discourage noise-sensitive uses from locating near sources of high noise levels.

Policy 6.5.1.9

Noise created by new transportation noise sources, excluding airport expansion but including roadway improvement projects, shall be mitigated so as not to exceed the levels specified in Table 6-1 at existing noise-sensitive land uses.

Table 6-1 of the El Dorado County Noise Element, shown below as Table 24, establishes an exterior noise level criterion of 60 dB Ldn at the outdoor activity area of residential land uses impacted by transportation noise sources. Where it is not possible to reduce noise in outdoor activity areas to 60 dB Ldn or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB Ldn may be allowed provided that available exterior noise level reduction measures have been implemented. In addition, an interior noise level criterion of 45 dB Ldn is applied to all residential land uses. The intent of this interior standard is to provide a suitable environment for indoor communication and sleep.

Affected Environment

The U.S. 50/Ponderosa Road Interchange Noise Study Report (February 2009) was prepared by J.C. Brennan and Associates for the proposed project.

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 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.

Existing background noise levels at sensitive residential receptors were measured to range between 32 dBA L_{eq}(h) to 56 dBA L_{eq}(h) over a 24-hour period. Noise levels at commercial land uses were measured to range between 61-65 dBA L_{eq}(h) during daytime short-term noise level measurements.

Table 24: Maximum Allowable Noise Exposure for Transportation Sources

Land Use	Outdoor Activity Areas1 Ldn/CNEL, dB	Interior Spaces	
		Ldn/CNEL, dB	Leq, dB2
Residential	60[3]	45	--
Transient Lodging	60[3]	45	--
Hospitals, Nursing Homes	60[3]	45	--
Theaters Auditoriums, Music Halls	--	--	35
Churches, Meeting Halls, Schools	60[3]	--	40
Office Buildings	--	--	45
Libraries, Museums	--	--	45
Playgrounds, Neighborhood Parks	70	--	--

Notes:
[1] In Communities and Rural Centers, where the location of outdoor activity areas is not clearly defined, the exterior noise level standard shall be applied to the property line of the receiving land use. For residential uses with front yards facing the identified noise source, an exterior noise level criterion of 65 dB L_{dn} shall be applied at the building façade, in addition to a 60 dB L_{dn} criterion at the outdoor activity area. In Rural Regions, an exterior noise level criterion of 60 dB L_{dn} shall be applied at a 100 foot radius from the residence unless it is within Platted Lands where the underlying land use designation is consistent with Community Region densities in which case the 65 dB L_{dn} may apply. The 100-foot radius applies to properties which are five acres and larger; the balance will fall under the property line requirement.
[2] As determined for a typical worst-case hour during periods of use.
[3] Where it is not possible to reduce noise in outdoor activity areas to 60 dB L_{dn}/CNEL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB L_{dn}/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

Source: Table 6-1 of the El Dorado County General Plan Noise Element

Environmental Consequences

Four short-term measurement locations were selected to represent major developed areas within the project area (Figure 13). Short-term monitoring was conducted at both Activity Category B, C and D land uses, described below in Table 25. Two long-term noise level measurements sites were selected to capture the day/night noise level pattern in the project area at sensitive receptors. Short-term measurement locations were selected to serve as representative modeling locations.

Traffic on US-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 US-50 was 65 mph.

Table 25: Land Use Activity Categories and NAC

Activity Category	NAC, Hourly A-Weighted Noise Level (dBA-L_{eq}[h])	Description of Activities
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	67 Exterior	Picnic areas, recreation areas, playgrounds, active sport areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 Exterior	Developed lands, properties, or activities not included in categories A or B above.
D	—	Undeveloped lands.
E	52 Interior	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

Traffic noise levels were predicted using the computerized FHWA Traffic Noise Model. Key inputs to the traffic noise model were the locations of roadways, shielding features (e.g., topography and buildings), noise barriers, ground type, and receivers. Model locations are depicted in Figure 13. Traffic noise was evaluated under existing conditions, design year no-project conditions, and design year conditions with the project alternatives.

The modeling results shown in Tables 26, 27, and 28 indicate that none of the project alternatives would result in noise levels that 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 L_{eq}(h) threshold required before consideration of noise abatement. Therefore, no noise abatement consideration is warranted based upon the Protocol criteria.

The modeling results shown in Tables 26, 27, and 28 indicate that receptors under each of the project alternatives would result in noise levels which would approach or exceed the NAC criteria of 72 dBA L_{eq}(h) at the Activity Category C receptors. However, these receptors are primarily commercial or park and ride lots and would not warrant consideration of noise abatement.

Figure 13

US-50 / Ponderosa Road Interchange Noise Study

Noise Measurement Sites and Modeled Noise Receptors

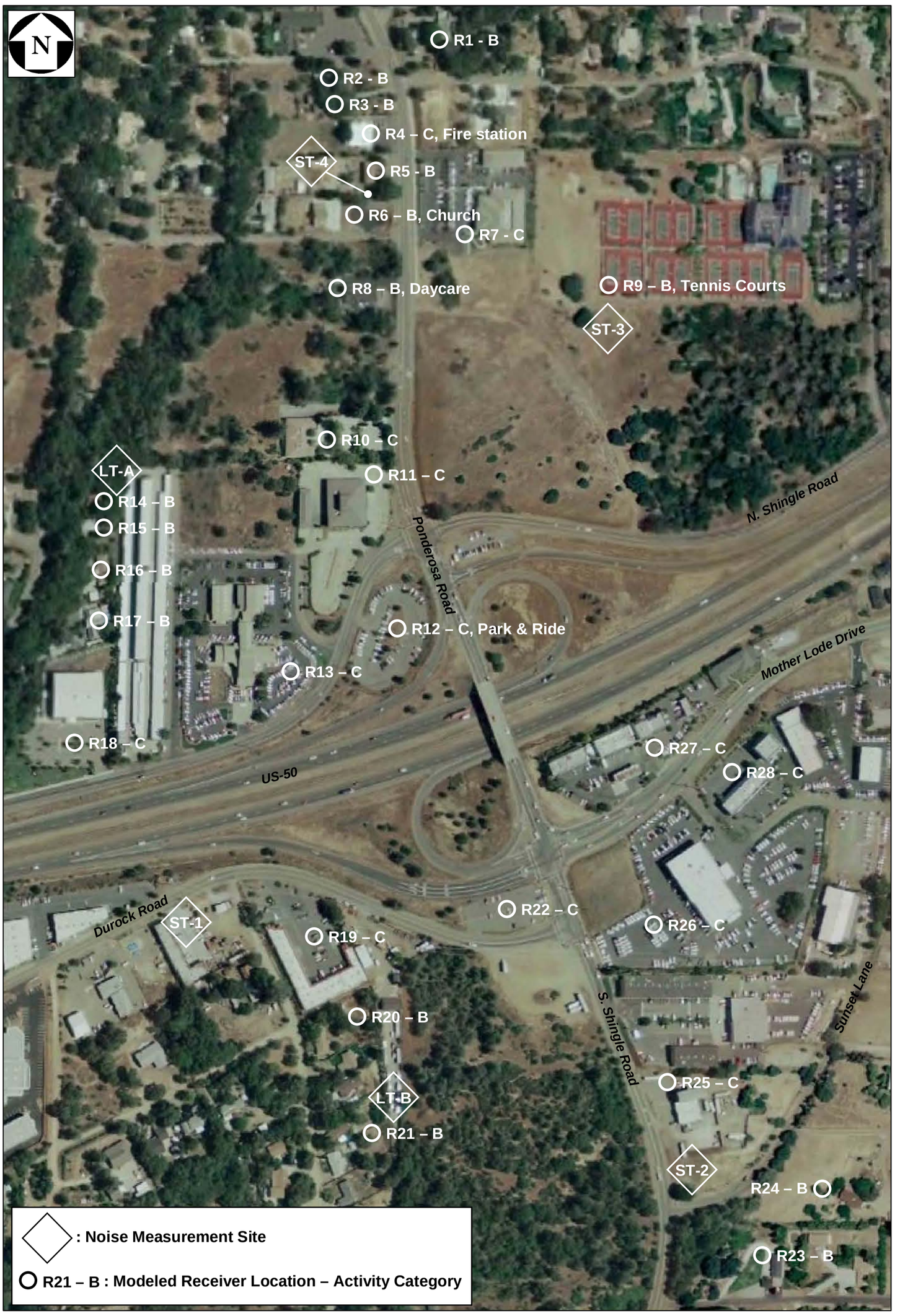


Table 26: Predicted Future Noise – No Build vs. Alternative 1

Receiver I.D	Land Use	Number of Dwelling Units	Address	Existing Noise Level Leq(h), dBA	US 50/Ponderosa Road Interchange Future Worst Hour Noise Levels – Leq(h), dBA				
					Design Year (2035), No Project Noise Levels Leq(h), dBA	Design Year (2035), Alternative 1 Noise Levels Leq(h), dBA	Noise Increase (+) or Decrease (-) Over Existing	Activity Category (NAC)	Impact Type
R1	Residential	1	3841 Ponderosa	60	61	64	4	B	None
R2	Residential	1		55	55	57	2	B	None
R3	Residential	1		54	55	56	2	B	None
R4	Fire Station	0	3860 Ponderosa	61	61	63	2	C	None
R5	Residential	1		60	60	62	2	B	None
R6	Church	0	3880 Ponderosa	55	55	57	2	B	None
R7	Commercial	0	3883 Ponderosa	59	60	63	4	C	None
R8	Residential/ Daycare	1	3900 Ponderosa	55	55	58	3	B	None
R9	Active Sports/ Tennis	0	4242 Sports Club	57	59	60	3	B	None
R10	Commercial	0	3932 Ponderosa	57	58	62	5	C	None
R11	Commercial	0		61	62	66	5	C	None
R12	Park & Ride	0		64	66	66	2	C	None
R13	Commercial	0		68	70	71	3	C	A/E
R14	Residential	1	3941 Cross Wood	55	57	56	1	B	None
R15	Residential	1		56	58	57	1	B	None
R16	Residential	1		57	59	59	2	B	None
R17	Residential	1		60	62	62	2	B	None
R18	Commercial	0		71	73	73	2	C	A/E
R19	Commercial	0	4050 Durock	63	65	67	4	C	None
R20	Residential	1		53	55	59	6	B	None
R21	Residential	6	4083 Oakmont	53	55	58	5	B	None
R22	Park & Ride	0		69	71	70	1	C	None
R23	Residential	1	4164 Sparrow	54	54	57	3	B	None
R24	Residential	1		52	53	55	3	B	None
R25	Commercial	0	4131 South Shingle Springs	63	63	65	2	C	None
R26	Commercial	0		61	62	62	1	C	None
R27	Commercial	0	4021 Mother Lode	69	71	71	2	C	A/E
R28	Commercial	0	4056 Mother Lode	67	70	69	2	C	None

Source: Noise Study Report, February 2009, Appendix B
A/E = Future noise conditions approach or exceed the Noise Abatement Criteria
Figure 13 shows the locations of receptors analyzed in this analysis

Table 27: Predicted Future Noise – No Build vs. Alternative 2

Receiver I.D	Land Use	Number of Dwelling Units	Address	Existing Noise Level Leq(h), dBA	US 50/Ponderosa Road Interchange Future Worst Hour Noise Levels – Leq(h), dBA				
					Design Year (2035), No Project Noise Levels Leq(h), dBA	Design Year (2035), Alternative 2 Noise Levels Leq(h), dBA	Noise Increase (+) or Decrease (-) Over Existing	Activity Category (NAC)	Impact Type
R1	Residential	1	3841 Ponderosa	60	60	64	4	B	None
R2	Residential	1		55	55	57	2	B	None
R3	Residential	1		54	55	56	2	B	None
R4	Fire Station	0	3860 Ponderosa	61	61	63	2	C	None
R5	Residential	1		60	60	62	2	B	None
R6	Church	0	3880 Ponderosa	55	55	56	1	B	None
R7	Commercial	0	3883 Ponderosa	59	60	63	4	C	None
R8	Residential/ Daycare	1	3900 Ponderosa	55	55	57	2	B	None
R9	Active Sports/ Tennis	0	4242 Sports Club	57	59	60	3	B	None
R10	Commercial	0	3932 Ponderosa	57	58	62	5	C	None
R11	Commercial	0		61	62	66	5	C	None
R12	Park & Ride	0		64	66	66	2	C	None
R13	Commercial	0		68	70	71	3	C	A/E
R14	Residential	1	3941 Cross Wood	55	57	57	2	B	None
R15	Residential	1		56	58	58	2	B	None
R16	Residential	1		57	59	59	2	B	None
R17	Residential	1		60	62	61	1	B	None
R18	Commercial	0		71	73	73	2	C	A/E
R19	Commercial	0	4050 Durock	63	65	67	4	C	None
R20	Residential	1		53	55	59	6	B	None
R21	Residential	6	4083 Oakmont	53	55	58	5	B	None
R22	Park & Ride	0		69	71	70	1	C	None
R23	Residential	1	4164 Sparrow	54	54	57	3	B	None
R24	Residential	1		52	53	55	3	B	None
R25	Commercial	0	4131 South Shingle Springs	63	63	65	2	C	None
R26	Commercial	0		61	62	62	1	C	None
R27	Commercial	0	4021 Mother Lode	69	71	71	2	C	A/E
R28	Commercial	0	4056 Mother Lode	67	70	69	2	C	None

Source: Noise Study Report, February 2009, Appendix B
A/E = Future noise conditions approach or exceed the Noise Abatement Criteria
Figure 13 shows the locations of receptors analyzed in this analysis

Table 28: Predicted Future Noise – No Build vs. Alternative 2

Receiver I.D	Land Use	Number of Dwelling Units	Address	Existing Noise Level Leq(h), dBA	US 50/Ponderosa Road Interchange Future Worst Hour Noise Levels – Leq(h), dBA				
					Design Year (2035), No Project Noise Levels Leq(h), dBA	Design Year (2035), Alternative 3 Noise Levels Leq(h), dBA	Noise Increase (+) or Decrease (-) Over Existing	Activity Category (NAC)	Impact Type
R1	Residential	1	3841 Ponderosa	60	60	64	4	B	None
R2	Residential	1		55	55	57	2	B	None
R3	Residential	1		54	55	56	2	B	None
R4	Fire Station	0	3860 Ponderosa	61	61	63	2	C	None
R5	Residential	1		60	60	62	2	B	None
R6	Church	0	3880 Ponderosa	55	55	56	1	B	None
R7	Commercial	0	3883 Ponderosa	59	60	64	5	C	None
R8	Residential/ Daycare	1	3900 Ponderosa	55	55	56	1	B	None
R9	Active Sports/ Tennis	0	4242 Sports Club	57	59	63	6	B	None
R10	Commercial	0	3932 Ponderosa	57	58	60	3	C	None
R11	Commercial	0		61	62	64	3	C	None
R12	Park & Ride	0		64	66	66	2	C	None
R13	Commercial	0		68	70	70	2	C	A/E
R14	Residential	1	3941 Cross Wood	55	57	56	2	B	None
R15	Residential	1		56	58	57	1	B	None
R16	Residential	1		57	59	59	2	B	None
R17	Residential	1		60	62	61	1	B	None
R18	Commercial	0		71	73	73	2	C	A/E
R19	Commercial	0	4050 Durock	63	65	65	2	C	None
R20	Residential	1		53	55	54	1	B	None
R21	Residential	6	4083 Oakmont	53	55	55	2	B	None
R22	Park & Ride	0		69	71	70	1	C	None
R23	Residential	1	4164 Sparrow	54	54	56	2	B	None
R24	Residential	1		52	53	54	2	B	None
R25	Commercial	0	4131 South Shingle Springs	63	63	63	0	C	None
R26	Commercial	0		62	62	62	0	C	None
R27	Commercial	0	4021 Mother Lode	69	71	71	2	C	A/E
R28	Commercial	0	4056 Mother Lode	67	70	69	2	C	None

Source: Noise Study Report, February 2009, Appendix B
A/E = Future noise conditions approach or exceed the Noise Abatement Criteria
Figure 13 shows the locations of receptors analyzed in this analysis

Construction-Related 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 shall comply with applicable local, state, and federal regulations, and that all equipment shall 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, 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 Mitigation Measures

Measures NOI-1 through NOI-3 should be implemented under all Build Alternatives to minimize the potential for construction noise impacts.

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.

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.

Measure NOI-3: Construction shall 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.

CEQA Noise Analysis (El Dorado County General Plan Noise Element)

Build Alternatives 1 and 2

The Noise Study Report indicates that Build Alternatives 1 and 2 will result in increases in traffic noise levels ranging from approximately 1-6 dB. At modeled location R20, the increase in traffic noise levels is predicted to be 6 dB due to the proposed realignment of Durock Road. This increase in traffic noise levels would exceed the County's significance criteria for transportation noise sources which is identified in the El Dorado County General Plan Noise Element Table 6-1 (provided as Table 24 in the Regulatory Setting Section above).

In order to minimize the potential for increases in noise from new transportation sources, two noise abatement strategies are recommended. Rubberized asphalt or open-graded asphalt concrete has been recognized to reduce traffic noise levels by approximately 4 to 5 dB. Implementation of this noise abatement strategy is predicted to reduce the impact to a less than significant level. Measures NOI-4 would provide noise abatement suitable to reduce increases in transportation related noise along Durock Road to a less than significant level.

Build Alternative 3

The Noise Study Report indicates that Build Alternatives 3 will result in increases in traffic noise levels; however, none of the modeled locations with sensitive receptors show a significant increase in noise predominantly because the transportation network will remain in its current approximate alignment. The increases in associated traffic noise would not exceed the County's significance criteria for noise sources and no mitigation would be required.

No-Build Alternative

The No-Build Alternative would result in no changes to the existing transportation facilities and would result no noise impacts.

Measure NOI-4: A 6 dB increase in traffic noise levels is predicted under Alternatives 1 and 2 along the realignment of Durock Road. The proposed project shall use rubberized asphalt or open-graded asphalt concrete along Durock Road to reduce traffic noise levels by approximately 4 to 5 dB. Implementation of this measure is predicted to reduce the impact to a less than significant level.

2.3 Biological Environment

Discussion in the following sections summarizes the Natural Environment Study (NES) that was prepared for the proposed project in December of 2008 and then updated in July of 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 impacts from each of the three build alternatives 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.

2.3.1 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 in the Threatened and Endangered Species Section 2.3.5. Wetlands and other waters are also discussed in the following Section 2.3.2.

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 & 25 and July 7, 2015 to re-evaluate the biological conditions within the project area. The updated biological surveys determined that the project site conditions documented in the 2008 NES have not substantially changed since 2008; therefore, results related to natural communities within the project area remain valid. This section summarizes the natural communities portion of that document.

The Ponderosa Road Interchange Improvement project area is located at approximately 1,520 feet (463 m) in elevation on west and south draining slopes above the South Fork of the American River. Small, unnamed drainages in the project area 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. The topography within the study area is nearly level to moderately sloping.

Most of the soils in the Ponderosa Interchange area 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 gabbrodiorite (USDA 1994). 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 Ponderosa Road Interchange Improvement project area are limited to a few stands of blue oak woodland, patches of chamise chaparral, and a small riparian area (Figure 14). Non-native vegetation also exists in the project area, 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.

Landscaping/Ruderal

Most of the Ponderosa Road Interchange Improvement project site is disturbed or urbanized and landscaped with horticultural species. Roadside plants include common knotweed, salsify, fluellin, and Bermuda grass. 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, house finch, house mouse, and black rat. Typical urban/suburban predators include feral and free-ranging cats and dogs, raccoon, striped skunk, opossum, western scrub-jay, and American crow.

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 or buckbrush, in most of these areas suggests they are historically cleared woodlands. The annual grasses such as soft chess, wild oat, rip-gut brome, medusa-head, dogtail, Italian ryegrass and rattail fescue that are dominant in the grasslands are thought to have arrived in California from the Mediterranean area along with Spanish colonizers (Heady 1988). 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 project area are usually perennials that live from year to year, persisting during the dry season as underground bulbs or thickened rootstock. California poppy, fare-well-to-spring and two-color lupine 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 in the project area provide habitat for species such as western kingbirds, lark sparrows, house finches, and lesser goldfinches. Mule deer, California ground squirrels, California voles, California deer mice and pocket gophers are also likely to occur in these habitats. These small mammals attract predators such as coyotes, gray fox, red-tailed hawks, and red-shouldered hawks. Turkey vultures and American crows were observed flying over annual grassland habitats in the project area.

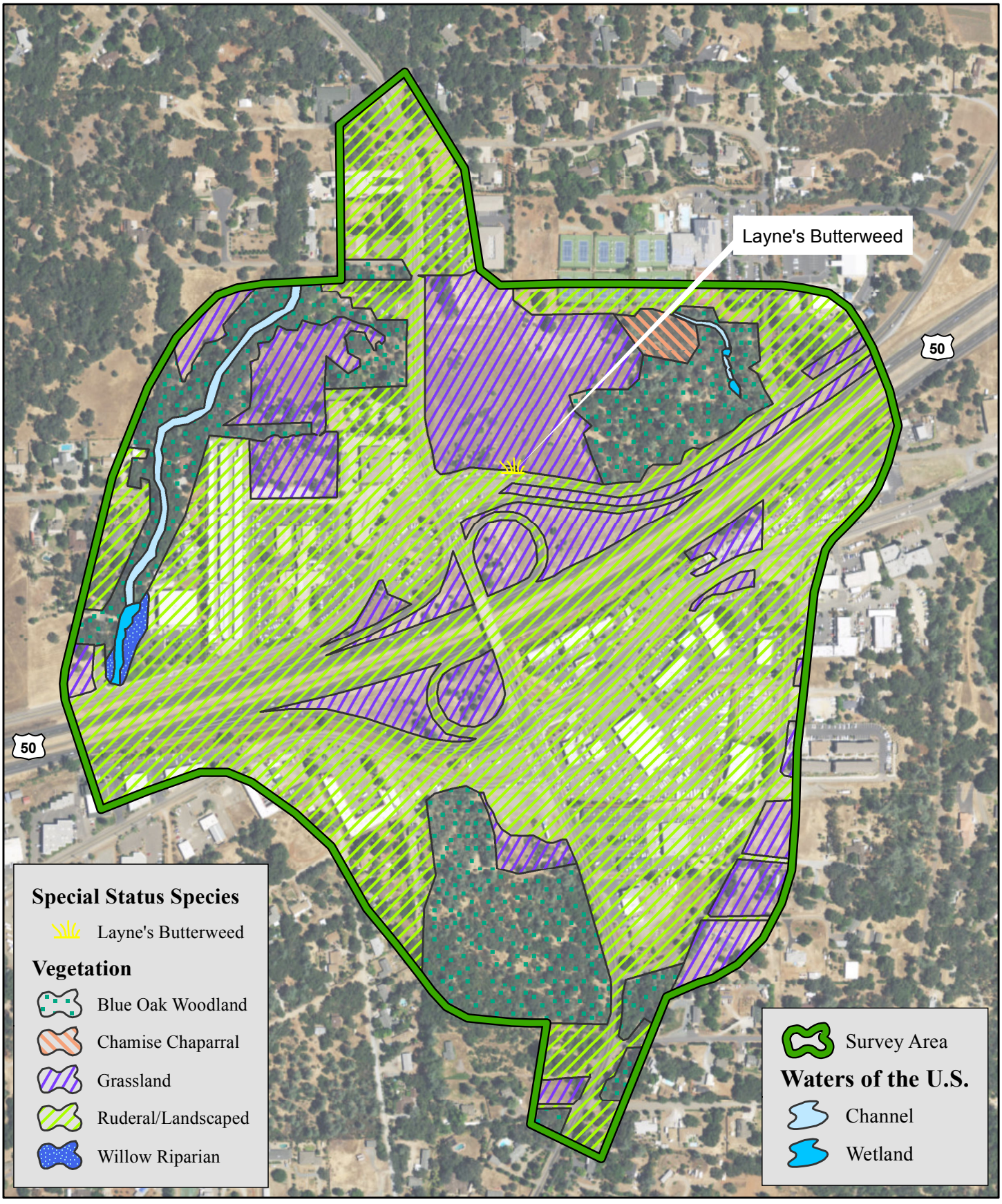


FIGURE 14
PROJECT AREA PLANT COMMUNITIES
U.S. 50/Ponderosa Interchange Improvements Project
District 3-Eld-50 (PM 8.3/8.7)
Federal Project # EA 03-2E550
El Dorado County, California

Blue Oak Woodland

Blue oaks are the dominant trees in the woodland vegetation at the Ponderosa Road Interchange Improvement project area. Other tree and shrubs species among the blue oak woodlands include interior live oak, foothill pine, manzanita, redberry and toyon. The woodland areas are overgrown with poison oak, a shrub with an often vine-like habit in disturbed areas. Poison oak responds more quickly to the removal of grazing pressure than other woodland shrubs and has the ability to resprout from damaged rootstock after soil disturbances. Grasses largely dominate the understory, with dogtail 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 (Block et al. 1990). Blue oaks, like all oak species, provide an invaluable high protein hard mast 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 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, northern pygmy owls, Cooper's hawks and red-shouldered hawks. Oak foliage and bark insects attract birds, such as bushtits, ash-throated flycatchers, western tanagers and western kingbirds. 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, 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 and western toad, with some reptiles represented by common kingsnake, western whiptail, and Gilbert's skink. All of these animals are potential inhabitants of oak woodlands at the project for all or part of the year.

Chamise Chaparral

The northeast quarter of the project area supports a small patch of chamise chaparral. 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 project area is more diverse and contains openings formed around foothill pine supporting mats of Sonoma sage clusters of soaproot, and broken by other shrubs including yerba santa, Lemmon's ceanothus, and buck brush. 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, California ground squirrels and deer mice 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 and gray fox, 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, 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, western scrub-jays, blue-gray gnatcatchers, wrentits, spotted towhees, California towhee, and lazuli bunting. 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.

Willow Riparian

The intermittent stream corridor in the northwest quarter of the project area has a small patch of willow riparian vegetation. The remainder of the channel is densely shaded with oak canopy. The corridor has been placer-mined and the continuity of the channel is broken with basins and flats supporting wetland vegetation. A short segment of the channel above Wild Chaparral Drive supports cattail and arroyo, smooth, and Gooding's willows. Valley oak is also present along the stream corridor. This riparian area is small, but adds to the diversity of the streamside habitat.

Despite the small overall acreage represented by riparian habitats, they support a disproportionately high number of animals, since the area can provide all habitat requirements; food, cover, and a source of water. Wetlands, riparian vegetation, and stream habitat provide cover, foraging and nesting habitat for many species (Zeiner et al. 1990). The willow riparian vegetation in the project area provides valuable wildlife habitat that differs from the surrounding upland habitats. The intermittent stream and riparian vegetation provide vegetative growth that attracts mule deer and other browsers, and can produce an abundant supply of insects for breeding birds such as violet-green and tree swallows , black phoebe, Pacific-slope flycatcher and other insect-eating birds. Riparian areas are also attractive to migratory species including a diversity of flycatchers, vireos, warblers, and tanagers. In addition, many other species inhabiting the adjacent uplands use the riparian habitat for water, cover, foraging, and nesting habitats.

Most mammals, amphibians and reptiles use riparian areas for cover, shade and a source of water. Bats frequently forage for insects over streams (and ponds) and many individuals may roost in riparian zone trees. Amphibians and reptiles likely to use riparian habitats include ensatina and Pacific tree frogs and a variety of snakes.

Environmental Consequences

Direct and indirect impacts to plant communities under each of the three project alternatives are summarized in Table 29. 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 and for determining appropriate mitigation measures to reduce vegetation removal impacts to less than significant levels.

Table 29: Summary of Vegetation Removal

Habitat Type	Total Area in Acres	Direct Impact Alt 1	Direct Impact Alt 2	Direct Impact Alt 3	Indirect Impact Alt 1	Indirect Impact Alt 2	Indirect Impact Alt 3
Landscaping/Ruderal	86.37	6.50	7.50	2.25	0	0	0
Annual Grassland	29.70	5.70	6.52	2.84	4.68	5.25	5.43
Blue Oak Woodland	25.30	4.58	5.05	1.50	0	0	0
Chamise Chaparral	1.65	0	0	0	0	0	0
Willow Riparian	0.43	0	0	0	0	0	0

Landscaping/Rudural Vegetation

Of an existing 86.37 acres of landscaping and ruderal vegetation in the project area, all of the build alternatives would result in some permanent impacts to this habitat type. Alternative 2 would have the greatest impacts and Alternative 3 would have the least; however, 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 a significant impact. No mitigation is required.

Annual Grasslands

Of an existing 29.70 acres of annual grassland in the project area, all of the build alternatives would result in some permanent and temporary impacts to this habitat type. Alternative 2 would have the greatest impacts (6.52 acres) and Alternative 3 would have the least impacts (2.84 acres). The permanent and temporary losses of this habitat type in the project area would not be considered a significant impact because annual grasslands are mostly composed of nonnative species, and they are widespread in the foothills of El Dorado County; therefore, no mitigation would be required.

Blue Oak Woodland

Of an existing 25.30 acres of blue oak woodland in the project area, all of the build alternatives would result in some permanent impacts to this habitat type. Alternative 2 would have the greatest impacts and Alternative 3 would have the least impacts. The permanent loss of 1.5 to 5.05 acres of this habitat type under all of the build alternatives would not be considered a significant impact because the *El Dorado County Oak Resources Management Plan (ORMP),* adopted by the El Dorado County Board of Supervisors on October 24, 2017,states that road widening and realignment projects necessary to increase capacity, protect public health, and improve safe movement of people and goods in existing pubic rights-of-way (as well as acquired rights-of-way necessary to complete the project) where the new alignment is dependent on an existing alignment are exempted from the mitigation requirements included in the ORMP; however, El Dorado County will implement the avoidance and minimization and compensatory mitigation measures described below.

Chamise Chaparral

There would be no permanent or temporary impacts to chamise chaparral under any of the build alternatives; therefore, no mitigation is required.

Willow Riparian

There would be no permanent or temporary impacts to willow riparian under any of the build alternatives; therefore, no mitigation is required.

Avoidance, Minimization, and/or Mitigation Measures

The recently adopted El Dorado County ORMP defines mitigation requirements for impacts to oak resources and outlines the County's strategy for oak woodland conservation. The ORMP functions as the oak resources component of the County's biological resources mitigation program identified in General Plan Policy 7.4.2.8. The plan identifies oak woodland mitigation ratios based on percent of oak woodland impacted. Mitigation for impacted oak woodland shall occur using one or more of the following options: 1) Off-site deed restriction or conservation easement acquisition and/or acquisition in fee title by a land conservation organization for purposes of off-ste oak woodland conservation; 2) In-lieu fee payment to be either used by the County to aquire off-site deed restrictions and/or conservation easements or to be given by the County to a land conservation organization to acquire off-site deed restrictions and/or conservation easements; 3) Replacement planting on-site within an area subject to a deed restriction or conservation easement; 4) Replacement planting off-site within an area subject to a conservation easement; or 5) A combination of numbers 1 through 4 above.

The project has been designed to minimize impacts to oak woodlands as much as possible. The project site is outside of designated El Dorado County Oak Woodland Priority Conservation Areas, which are significant stands of oak woodlands where Conservation Fund In-Lieu Fee mitigation are targeted for conservation easements from willing sellers.

The ORMP states that when oak canopy removal is necessary to complete widening and realignment projects, such projects are exempt from the mitigation requirements. This exemption applies to road widening and realignments that are necessary to increase capacity, to protect the public's health, and to improve the safe movement of people and goods in existing public road rights-of-way, as well as acquired rights-of-way necessary to complete the project.

This project meets the exemption criteria because it is a component of the County's CIP and is necessary to increase capacity, protect the health, and improve the safe movement of people and goods in existing public road rights-of-way; however, the County will nevertheless mitigate by payment into the County's Oak Woodland Conservation fund to compensate for loss of oak woodland habitat. Incorporating Measures BIO-1 through BIO-8 will further reduce any oak woodland impacts to less than significant levels.

Measure BIO-1: El Dorado County will contribute to the Oak Woodlands Conservation Fund for oak woodland area lost. These fees are paid to the County's Oak Woodlands Conservation Fund that provides for the preservation of comparable habitat in areas designated as having

high biological value. Fees will be paid concurrent with phased construction; each payment will mitigate for the area to be impacted by that phase, prior to that phase's start of construction.

Measure BIO-2: El Dorado County will incorporate oaks as appropriate in the landscaping and revegetation plan.

To minimize impacts to native oak trees as a result of project construction, the following measures shall also be implemented:

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

Measure BIO-4: Trees to be impacted shall 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 shall be avoided.

Measure BIO-5: All native oak trees to remain in place within and adjacent to proposed ground disturbances shall be designated as "Environmentally Sensitive Areas" (ESAs) and shall be temporarily fenced with orange plastic construction (exclusion) fencing throughout all grading and construction activities. To the extent feasible, the exclusion fencing shall be installed 6 feet outside the dripline of oak trees greater than 6 inches dbh, and shall 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.

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

Measure BIO-7: The revegetation/restoration plan shall be designed to minimize soil loss immediately after construction and to revegetate disturbed areas with appropriate native plants. The revegetation/restoration plan shall 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.

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 shall be obtained from within the Ponderosa Interchange project area when feasible or alternatively from contract-growers using locally occurring native plants. Advance notice shall be given to the suppliers or growers to ensure that the required species are ready at the proposed planting time.

2.3.2 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 Clean Water Act (CWA) (33 United States Code [USC] 1344), is the primary law regulating wetlands and surface waters. One purpose of the CWA is to regulate the discharge of dredged or fill material into waters of the U.S., including wetlands. Waters of the U.S. include navigable waters, interstate waters, territorial seas and other waters that may be used in interstate or foreign commerce. 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 U.S. Army Corps of Engineers (USACE) with oversight by the United States Environmental Protection Agency (U.S. EPA).

The USACE issues two types of 404 permits: General and Standard permits. There are two types of General permits: Regional permits and Nationwide permits. Regional permits are issued for a general category of activities when they are similar 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 Nationwide Permit may be permitted under one of USACE's Standard permits. There are two types of Standard permits: Individual permits and Letters of Permission. For Standard permits, the USACE decision to approve is based on compliance with U.S. EPA's Section 404(b)(1) Guidelines (U.S. EPA 40 Code of Federal Regulations [CFR] Part 230), and whether permit approval is in the public interest. The Section 404 (b)(1) Guidelines (Guidelines) were developed by the U.S. EPA in conjunction with the USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that the USACE may not issue a permit if there is a least environmentally damaging practicable alternative (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, this EO states that a federal agency, such as the 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.

At the state level, wetlands and waters are regulated primarily by the State Water Resources Control Board (SWRCB), the Regional Water Quality Control Boards (RWQCB) and the California Department of Fish and Wildlife (CDFW). In certain circumstances, the Coastal

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

The RWQCBs were established under the Porter-Cologne Water Quality Control Act to oversee water quality. Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA. In compliance with Section 401 of the CWA, the RWQCBs also issue water quality certifications for activities which may result in a discharge to waters of the U.S. This is most frequently required in tandem with a Section 404 permit request. Please see the Water Quality section for additional 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 & 25 and July 7, 2015 to re-evaluate the biological conditions within the project area. The updated biological surveys determined that the project site conditions documented in the 2008 NES have not substantially changed since 2008; therefore, results related to the potential for wetland & water resources remain valid. This section summarizes the Wetlands and other Waters portion of that document.

Two intermittent streams, two retention ponds, and a seasonal wetland are present in the Ponderosa Road Interchange Improvement project area. Other roadside ditches are present that provide drainage for short periods after rainstorms. The streams are defined by sediment transport and the evidence for seasonally high water flows. The man made retention ponds 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 commercial property and the nearby chaparral community. The seasonal wetland is dominated by herbaceous wetland species and is found in the placer diggings of the intermittent stream crossing Wild Chaparral Drive.

Environmental Consequences

There would be no direct impacts to Waters of the U.S. (i.e., channels and/or jurisdictional wetlands) under any of the build alternatives. This project could, however, result in indirect impacts to water quality, since construction will occur in close proximity to the pond at the northeastern portion of the project area, with the toe of the slope approximately 10 feet from the boundary of the pond. 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

fish and other aquatic resources, as could the accidental introduction of washwater, solvents, oil, chemical wastes, cement, or other pollutants. These potential impacts are essentially the same for all alternatives. These potential indirect impacts to water quality can be reduced with implementation of BMPs and other measures which are discussed in Section 2.2.2 Water Quality.

Avoidance, Minimization and/or Mitigation Measures

To avoid direct impacts to waters and wetlands as a result of project construction, the following measures will be implemented:

Measures BIO-9: Establish all waterways and aquatic features within the Ponderosa Interchange project area as ESAs. ESA exclusion fencing and silt fencing shall 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.

Measures BIO-10: Work will be conducted in accordance with the SWPPP and NPDES BMPs.

The contractor will implement the measures listed Section 2.2.2 Water Quality and Storm Water Run-off as well as the following specific measures in order to minimize indirect impacts to nearby waters, wetlands, and aquatic life.

Measures BIO-11: The contractor shall 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.

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 shall be used for erosion control.

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 shall not be used for erosion control to avoid introduction of additional noxious weeds to the site, such as star thistle.

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.

2.3.3 Plant Species

Regulatory Setting

The U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) have regulatory responsibility for the protection of special-status plant species. "Special-status" species are selected for protection because they are rare and/or subject to population and habitat declines. Special status is a general term for species that are provided varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as endangered or threatened under the Federal Endangered Species Act (FESA) and/or the California Endangered Species Act (CESA). Please see the Threatened and Endangered Species section 2.3.5 in this document for detailed information about these species.

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

The regulatory requirements for FESA can be found at United States Code 16 (USC), Section 1531, et seq. See also 50 Code of Federal Regulations (CFR) Part 402. The regulatory requirements for CESA can be found at California Fish and Game Code, Section 2050, et seq. Caltrans projects are also subject to the Native Plant Protection Act, found at California Fish and Game Code, Section 1900-1913, and the California Environmental Quality Act (CEQA), CA Public Resources Code, Sections 2100-21177.

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 & 25 and July 7, 2015 to re-evaluate the biological conditions within the project area. The updated biological surveys determined that the biological environment remains consistent with the habitat, conditions and conclusions documented in the 2008 NES; therefore, results related to the potential for special status plant species occurrence remain valid. This section summarizes the Plant Species portion of that document.

Common native plant species that were observed within the BSA can be found in Table 30.

Table 30: Plant Species Observed in the BSA

Scientific Name	**Common Name**
ANACARDIACEAE	SUMAC FAMILY
Toxicodendron diversilobum	Poison Oak
APIACEAE	CARROT FAMILY
Daucus carota	Carrot
Sanicula bipinnatifida	Purple sanicle
Sanicula crassicaulis	Pacific sanicle
Scandix pectin-veneris	Venus' needle

Scientific Name	**Common Name**
APOCYNACEAE	DOGBANE FAMILY
Vinca major	Greater periwinkle
ASTERACEAE	SUNFLOWER FAMILY
Baccharis pilularis	Coyote brush
Carduus pycnocephalus	Italian thistle
Centaurea colstitialis	Yellow star thistle
Chondrilla juncea	Skeleton week
Cirsium occidentale	Western thistle
Euthamia occidentialis	Western flat-topped goldenrod
Heterotheca grandiflora	Telegraph weed
Madia citrigracilis	Shasta tarweed
Micropus californicus	Slender cottonweed
Senecio layneae	Layne's ragwort
Solidago californica	Oreja de liebre
Tragopogon dubius	Yellow salsify
BRASSICACEAE	MUSTARD FAMILY
Barbarea vugaris	Yellow Rocket
Brassica nigra	Black mustard
CAMPANULACEAE	BELLIFLOWER FAMILY
Heterocodon rariflorum	Few-flowered heterocodon
CARYOPHYLLACEAE	CARNATION FAMILY
Petrorhagia dubia	Pink grass
Spergularia rubra	Red sandspurry
CONVOLVULACEAE	MORNING GLORY FAMILY
Atriplex canescens	four-wing saltbush
CONVULVULACEAE	MORNING GLORY FAMILY
Calystegia occidentalis	Western morning-glory
CUCURBITACEAE	CUCUMBER FAMILY
Marah fabaceaus	Wild-cucumber
CYPERACEAE	SEDGE FAMILY
Carex densa	Dense sedge
Carex dudleyi	Dudley's sedge
Carex praegracilis	Greensheath sedge
Carex praegracilis	Clustered field sedge
Cyperus eragrostis	Tall flatsedge
Eleocharis macrostachya	Common spikerush
Eleocharis pachycarpa	Broad-fruit spikerush

Scientific Name	**Common Name**
ERICACEAE	HEATHER FAMILY
Arctostaphylos viscida	White-leaf Manzanita
FABACEAE	PEA FAMILY
Lotus corniculatus	Bird's-foot trefoil
Lotus humistratus	Short-podded lotus
Lotus micranthus	Small-flowered lotus
Lupinus bicolor	Two-color lupine
Trifolium hirtum	Rose clover
Vicia Americana	American vetch
Vicia sativa	Spring vetch
Vicia villosa	Hairy vetch
FAGACEAE	OAK FAMILY
Quercus douglasii	Blue oak
Quercus lobata	Valley oak
Quercus wislizenii	Interior live oak
GERANIACEAE	CRANESBILL FAMILY
Geranium dissectum	Cut-leaved geranium
HYDROPHYLLACEAE	WATERLEAF FAMILY
Eriodictyon californicum	California yerba santa
HYPERICACEAE	ST. JOHN'S WORT FAMILY
Hypericum concinnum	Gold-wire
IRIDACEAE	IRIS FAMILY
Iris hartwegii	Hartweg's iris
Sisyrinchium bellum	Blue-eyed grass
JUNCACEAE	RUSH FAMILY
Juncus balticus	Baltic rush
Juncus phaeocephalus	Brown-headed rush
LAMIACEAE	MINT FAMILY
Marrubium vulgare	Horehound
Salvia sonomensis	Sonoma sage
LILICEAE	LILY FAMILY
Calochortus albus	White fairy lantern
Chlorogalum pomeridianum	Common soaproot
Dichelostemma colubile	Twinning brodiaea

Scientific Name	**Common Name**
LINACEAE	FLAX FAMILY
Linum usitatissimum	Common flax
OLEACEAE	OLIVE FAMILY
Ligustrum sp.	Privet
ONAGRACEAE	EVENING PRIMROSE FAMILY
Clarkia unguiculata	Woodland clarkia
Epilobium brachycarpum	Autumn wíllowweed
PAPAVERACEAE	POPPY FAMILY
Eschscholzia californica	Califomia poppy
POACEAE	GRASS FAMILY
Aegilops triuncialis	Goatgrass
Aira caryophyllea	Silver hairgrass
Brachypod iu m d istachyon	Purple false-brome
Briza minor	Little quaking grass
Bromus diandrus	Ripgut brome
Bromus hordeaceus	Soft chess
Bromus madritensis ssp. rubens	Red brome
Cynodon dactylon	Bermuda grass
Cynosurus eihinatus	Hedgehog dogtail-grass
Elymus glaucus	Blue wildrye
Festuca arundinacea	Tall fescue
Melica californica	California melic
Nassella pulchra	Purple needle grass
Paspalum dilatatum	Dallis grass
Poa bulbosa	Bulbous blue grass
Poa pratensis	Kentuky blue grass
Taeniathrum caput medusaue	Medusa head
POLYGONACEAE	BUCKWHEAT FAMILY
Polygonum arenastrum	Common knotweed
Rumex cn'spus	Curly dock
Rumex salicifotius	Willow dock
PRIMULACEAE	PRIMROSE FAMILY
Anagallis aryensls	Scarlet pimpernel
PTERIDACEAE	BRAKE FERN FAMILY
Pentagramma triangularis	Gold-back fern
RHAMNACEAE	BUCKTHORN FAMILY
Ceanothus cuneatus	Buck brush

Scientific Name	**Common Name**
Ceanothus integenimus	Deer brush
Ceanothus lemmonii	Lemmon's ceanothus
Rhamnus qocea	Redberry
ROSACEAE	ROSE FAMILY
Adenostoma fasciculatum	Chamis
Heteromeles arbutifolia	Toyon
Ruöus disælor	Himalaya-berry
RUBIACEAE	BEDSTRAW FAMILY
Galium aparine	Common bedstraw
Galium ponigens	Graceful bedstraw
SALICACEAE	WILLOW FAMILY
Salix exigua	Sandbar willow
Salix gæddingii	Goodding's valley willow
Salix laevigata	Red willow
Salix lasiolepis	Arroyo willow
SCROPHULARIACEAE	FIGWORT FAMILY
Catalpa bignonioides	Catalpa
Cordylanthus pilosus	Hairy bird's-beak
Kckxia spuria	Fluellin
TYPHACEAE	ANGIOSPERM FAMILY
Typha latifotia	Broadleaf cattail
ZYGOPHYLLACEAE	CALTROP FAMILY
Tribulus terrestris	Puncture-vine

Habitats known to support many of the special status plants in the vicinity of the project were found on the site but, no additional rare plant populations were found during the botanical field surveys performed on May 1, May 14, and June 2, 2008. Several of the special status plants, however, occur on the Rescue soil in chaparral or oak woodland habitats similar to those found on the property. Populations of six of these species are found within one mile of the Ponderosa Road Interchange Improvement project area in disturbed chaparral vegetation on Rescue series soils. This known location was visited during the field survey to determine habitat and flowering characteristics of the target species. Other regionally occurring special status plants are found in seasonally ponded wetlands or vernal pool habitats that do not exist in the project area. The small streamside seasonal wetland, detention ponds, and intermittent stream channels found on the properties surrounding the Ponderosa Road Interchange Improvement project site are limited in extent and have low suitability for these species.

CDFG *Natural Diversity Data B*ase (CNDDB 2008) was consulted for documented occurences of special status plants and animals 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 Sacramento Office of the USFWS was contacted on October 11, 2008, and then updated on February 2, 2016, to secure an official species list for the Shingle Springs USGS 7.5 Quadrangle. These database searches indicate numerous special-status species could occur within a 10-mile radius of the project area. Special status plant species that have some potential to occur in the project area are discussed below.

Jepson's Onion

Jepson's onion is a perennial herb in the lily family known to occur on serpentine and volcanic substrates in less than six isolated foothill locations from Butte, Placer, El Dorado and Tuolumne counties. Habitat for this species is restricted to open clayey or rocky outcrops. A single cylindrical leaf distinguishes plants in early spring with white flowers occurring in May to June. A single population occurs locally in the Shingle Springs area (CNDDB 2008). This species was not detected within the project area during the field surveys.

Pine Hill Ceanothus

Pine Hill ceanothus is a low mat-forming shrub that is similar to wedge leaf ceanothus in many ways except growth habit. Plants spread widely over the ground to three meters, often rooting at the buried stem nodes. Pine Hill ceanothus is restricted to gabbro soil where it is found in openings among chaparral shrubs or in disturbed areas. It is known only from the Pine Hill area. A population of Pine Hill ceanothus is found within one mile of the Ponderosa Road Interchange Improvement project site (CNDDB 2008). This species was not detected within the project area during the field surveys.

Stebbins' Morning Glory

Stebbins' morning glory is an herbaceous perennial vine that trails long (one meter) leafy stems over bare ground or onto neighboring plants. The plant has grayish green leaves that are dissected into linear divisions, and large white flowers that appear in May to June. Stebbins's morning glory is found in openings in chaparral, and is often associated with whiteleaf manzanita or chamise. A large population of Stebbins morning glory is found within one mile of the project site in the Cameron Park unit of the USFWS gabbro plants preserve (USFWS 2002). This species was not detected within the project area during the field surveys.

Red Hills Soaproot

Red Hills soaproot is a perennial bulb in the lily family. It sends up long wavy-margined leaves up to 12 inches long. Flowering stalks appear in April to May and produce white flowers with blue veins that open in the evening to attract pollinating moths. Red Hills soaproot is very similar to the common soaproot, but is generally smaller in stature and lacks the rough fibrous bulb coat of the common species. Red Hills soaproot is found on gabbro and serpentine soils in western El Dorado County and at the Red Hills in Tuolumne County. It prefers rocky open

areas in chaparral. A population of this plant is found at the Cameron Park unit of the USFWS gabbro plants preserve within one mile of the project area (USFWS 2002). This species was not detected within the project area during the field surveys.

Pine Hills Flannelbush

Pine Hills flannelbush is a branched spreading shrub that grows to 4 feet tall. It has densely bristly leaves and orange to reddish brown flowers that appear in late April to July. Pine Hills flannelbush is known from the gabbroic rocky outcrops on Pine Hill where it grows among chamise, toyon, Ponderosa pine and foothill pine. There are no populations of Pine Hills flannelbush known from the immediate vicinity of the Ponderosa Road Interchange Improvement project area (CNDDB 2008), and this species was not detected within the Ponderosa Road Interchange Improvement project area during the field surveys.

El Dorado Bedstraw

El Dorado bedstraw is a perennial herb with softly hairy and very narrow leaves arranged in a whorl around the spreading stems. It is found on the gabbro derived soils of the Pine Hill area in ponderosa pine or black or live oak woodlands. Flowers are small, pale yellow in color, and clustered at the tips of stems during May to June. El Dorado bedstraw is distinguished from other locally occuring members of the genus *Galium* by its narrow and hairy leaves grouped in fours around the stems. This species was not detected within Ponderosa Road Interchange Improvement project during the field surveys.

Bisbee Peak Rush-Rose

Bisbee Peak rush-rose is a low growing, open branching shrub with bright yellow flowers. The narrow leaves are densely covered with short white hairs. It is found from El Dorado County to Amador and Calaveras counties within the gabbro soil type. Bisbee Peak rush-rose flowers in May and was observed within one mile of the Ponderosa Road Interchange Improvement project in the Cameron Park area. This species was not detected within the Ponderosa Road Interchange Improvement project area during the field surveys.

El Dorado County Mule Ears

El Dorado County mule ears is a clonally spreading perennial herb with large arrow shaped leaves and bright yellow flowers that appear from May to June. Plants can grow to 3 feet tall and are distinctive in their spreading habit. Populations are found in open rocky chaparral communities on gabbro soils. Plants reproduce by sending shoots up from the spreading root system. A single population of El Dorado mule ears may be represented by few broadly spreading individuals. Reproduction from seed is very poor. A population of El Dorado County mule ears is located in the Cameron Park unit of the USFWS gabbro plants preserve within one mile of the project site. This species was not detected within the project area during the field surveys.

Environmental Consequences

No special status plants were found in the project area and none would be impacted by construction of any of the build alternatives.

Avoidance, Minimizations and/or Mitigation Measures

No measures are needed for special status plant species.

2.3.4 Animal Species

Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The U.S. Fish and Wildlife Service (USFWS), the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries Service) and the California Department of Fish and Wildlife (CDFW) are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with animals not listed or proposed for listing under the federal or state Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in Section 2.3.5 below. All other special-status animal species are discussed here, including CDFW fully protected species and species of special concern, and USFWS or NOAA Fisheries Service 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

State laws and regulations relevant to wildlife include the following:

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

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 & 25 and July 7, 2015 to re-evaluate the biological conditions within the project area. The updated biological surveys determined that the biological environment remains consistent with the habitat, conditions and conclusions documented in the 2008 NES; 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 project area were obtained from the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB) and the United States Fish and Wildlife Service (USFWS). Based on the updated species list results, the following species were identified that were not evaluated in the 2008 NES: fisher (Pekania pennanti), a State Candidate species, federal proposed threatened species & a CDFW Species of Special Concern; bank swallow (Riparia riparia), a State threatened species; Delta smelt (Hypomesus transpacificus), a

federally threatened & state endangered species; and the northern California DPS steelhead (Oncorhynchus mykiss irideus), a federally threatened species. However, based on habitat evaluations, site elevation, and distances from known occurrences, none of these species have the potential to occur in the project area or be affected by project activities.

Common native animal species that were observed within the BSA can be found in Table 31.

Table 31: Plant Species Observed in the BSA

Scientific Name	**Common Name**
BIRDS	
Cøthartes øura	Turkey vulture
Aix sponn	Wood duck
Buteo jamøicensis	Red-tailed hawk
Melanerpes formicivorous	Acorn woodpecker
Colnptcs aurøtus	Northern flicker
knaidø macrourît	Mourning dove
Snyornis nigricøns	Black phoebe
Myiarchus cinerascens	Ash-throated flycatcher
Vireo huttoni	Hutton's vireo
Aphelocoma cøliþrnicø	Western scrub-jay
Coruusbrachyrhynchos	American crow
Baeolophus inornatus	Oak titmouse
Psaltriparus minimus	Bushtit
Sítta cørolinensis	White-breasted nuthatch
Thryomanes bewickii	Bewick's wren
Turdus migrntorius	American robin
Pirønga ludoocinna	Western tanager
Pipilo maculøtus	Spotted towhee
Pipilo crissalis	California towhee
Euphagus cyanocephalus	Brewer's blackbird
AMPHIBIANS AND REPTILES	
Pæudacris regilø	Pacific treefrog
Sceloporus occidentalis	Western fence lizard
MAMMALS	
Sciurus griseus	Western gray squirrel
Spermophilus beecheyi	California ground squirrel
Odocoileus hemionus	Mule deer
Canis latrans	Coyote
Uroycon cinerioargentatus	Gray fox

CDFG *Natural Diversity Data B*ase (CNDDB 2008) were consulted for documented occurences of special status plants and animals 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 Sacramento Office of the U.S. Fish and Wildlife Service (USFWS) was contacted on October 11, 2008 to secure an official species list for the Shingle Springs USGS 7.5 Quadrangle. These database searches indicate numerous special-status species could occur within a 10-mile radius of the project area. Habitats known to support some of the special status animals were found near the site, but no additional populations were detected during the wildlife field surveys. The wildlife species considered during those surveys and results of the surveys are described below.

Valley Elderberry Longhorn Beetle

Elderberry shrubs, the valley elderberry longhorn beetle's obligate plant habitat were not identified anywhere in the project area during the botanical surveys, and no further discussion or mitigation is necessary. This species was recently been designated by the USFWS as "Federally Proposed for Delisting" (USFWS 2006).

Northwestern Pond Turtle

The western pond turtle is the only native aquatic turtle in California. It favors the same type of aquatic habitat that supports the California red-legged frog, although it also occurs in small streams and ponds with little bordering cover. The preferred habitat includes ponds or slow-moving water with logs or rocks for basking sites. In addition to such aquatic habitat, they require a large invertebrate macrofauna for forage and nearby fully exposed clay or sandy soil meadows with a southern or western exposure for egg deposition (Jennings and Hayes 1994). Usually these nesting areas are within a few hundred yards of a watercourse, but nests have been located up to 0.4 mile from water. Pond turtles commonly have been observed moving long distances to reach isolated stock ponds or other aquatic habitats. In summer, they may aestivate in leaf litter, well away from riparian habitat. Young hatchlings feed largely on aquatic invertebrates in shallow waters. They reach sexual maturity at four to eight years of age and may live 50 or more years.

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, no further discussion or mitigation is necessary.

California Horned Lizard

The California horned lizard has a spotty distribution from Kennett (now under Lake Shasta, Shasta County) southward along the edges of the Sacramento Valley into much of the South Coast Ranges, San Joaquin Valley, and Sierra Nevada foothills to northern Los Angeles, Santa Barbara and Ventura counties, California (Jennings 1988). Based on limited data, California horned lizards appear to have a life history very similar to the related San Diego horned lizard. They have been observed to be active between April and October with activity being more conspicuous in April and May. Hatchlings first appear in July and August. Longevity in the wild is unknown, but captive species have been maintained for over eight years. California horned

lizards are recorded as preying on beetles and ants (Grinnell and Storer 1924), but probably take many other insects which are seasonally abundant. There is one occurrence of this species approximately 0.4 mile east of Cameron Park Drive, and 0.7 mile north of U.S. 50 (CNDDB 2008), and suitable habitat for this species exists immediately to the west of the commonly, on the north side of U.S. 50. Since no suitable habitat was observed within the Ponderosa Road Interchange Improvement project area, no further discussion or mitigation is necessary.

California Black Rail

In Central California, most black rails occur in northern San Francisco Bay, where they inhabit tidal marshes characterized by heavy growths of pickleweed, and also brackish and freshwater marshes at low elevations (Grinnell and Miller 1944). Studies by Tecklin (Aigner et al. 1995) and others have recently described this species as inhabiting freshwater marshes in the Sierra foothills (Aigner et al., 1995). In the Sierra Nevada, black rail sites were found almost exclusively as discrete pockets of emergent vegetation, often an island of such habitat surrounded by dry annual grassland, pasture, or oak woodland (Tecklin 1999). Wetlands were supported by natural seeps and springs, but most commonly by irrigation waters associated with cattle management, including areas of seepage below stock ponds and irrigated pasture. This subspecies has been detected only in Butte, Nevada, Placer, and Yuba counties, and there are no known occurrences in El Dorado County (CNDDB 2008; Tecklin pers. Comm.). No suitable habitats for this species at or near the Ponderosa Road Interchange Improvement project area were observed during the field surveys; therefore, no further discussion or mitigation is necessary.

Cooper's Hawk

Cooper's hawks breed in dense-canopied trees from foothill pine-oak woodlands of the Sierra foothills up to the mixed conifer forest (Zeiner et al. 1990). This species hunts in broken woodland and habitat edges, where they catch small birds in the air. They prefer nesting sites in riparian growths of deciduous trees, as in canyon bottoms and on river flood plains, although live oaks are often used (Grinnell and Miller 1944). They breed March through August, with peak activity occurring May through June (Zeiner et al. 1990). Cooper's hawk nests are often constructed in deciduous trees in crotches between 20 to 50 feet above the ground (Zeiner et al. 1990). While this species may visit the Ponderosa Road Interchange Improvement project area occasionally, especially in winter, it is unlikely to nest in this vicinity due to the high levels of existing from suburban and residential developments and traffic. This species was recently removed from the list of California Bird Species of Special Concern since its populations in the state appear to be stable (Shuford and Gardali 2008). No further discussion or mitigation is necessary.

Special Status Bats

The Ponderosa Road Interchange Improvement project area is within the ranges of the pale Townsend's big-eared bat, small-footed myotis and long-eared myotis, all species of special concern to the CDFG (Williams 1986), as well as those of several other special status bat species. Habitat requirements, range and distribution of bat species in El Dorado County and

elsewhere in the state are generally poorly known, so little information exists on the potential occurrence of this species in the Ponderosa Road Interchange Improvement project area or the region; however, it is known that caves, old buildings, and other structures can provide roosting and maternity habitat for a variety of bat species (Zeiner et al. 1990). Since no caves, old buildings, or other potential bat habitat areas would be affected by this project, these species are not discussed further and no mitigation is necessary.

Environmental Consequences

No permanent or temporary impacts to special status or listed animal species are expected to result from any of the build alternatives for the proposed project.

Avoidance, Minimization and/or Mitigation Measures

No measures are needed for special status animal species.

2.3.5 Threatened and Endangered Species

Regulatory Setting

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act (FESA): 16 United States Code (USC) Section 1531, et seq. See also 50 Code of Federal Regulations (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 the Federal Highway Administration (FHWA), are required to consult with the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries Service) to ensure that 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, a Letter of Concurrence and/or documentation of a No Effect finding. Section 3 of FESA defines take as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct."

California has enacted a similar law at the state level, the California Endangered Species Act (CESA), California Fish and Game Code Section 2050, et seq. CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project-caused losses of listed species populations and their essential habitats. The California Department of Fish and Wildlife (CDFW) is the agency responsible for implementing CESA. Section 2081 of the Fish and Game Code prohibits "take" of any species determined to be an endangered species or a threatened species. Take is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA allows for take incidental to otherwise lawful development projects; for these actions an incidental take permit is issued by the CDFW. For species listed under both the FESA and CESA requiring a Biological Opinion under Section

7 of the FESA, the CDFW may also authorize impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of the California Fish and Game Code.

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

Affected Environment

A Biological Assessment (PAR 2009) was prepared to assess effects of the proposed project on listed species that have the potential to occur in the project area. Dokken Engineering biologist Angela Scudiere performed updated biological surveys on June 24 & 25 and July 7, 2015 to re-evaluate the biological conditions within the project area. The updated biological surveys determined that the biological environment remains consistent with the habitat, conditions and conclusions documented in the 2008 NES; therefore, results related to the potential for threatened and endangered species remains valid. Further, the surveys re-confirmed the presence of the previously identified Layne's butterweed (*Packera layneae*). The Layne's butterweed population observed onsite has not expanded beyond what was previously disclosed in the 2008 NES. No new or increased impacts to biological resources are expected to occur beyond what was identified in the 2008 NES. In September of 2009 Caltrans initiated Section 7 consultation with the USFWS for the following species:

Layne's Butterweed

This federal-listed (Threatened) and state-listed (Rare) 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 project area.

A single occurrence of Layne's butterweed was found within the Ponderosa Road Interchange Improvement project area during the spring and early summer 2008 surveys. At the Ponderosa Road Interchange Improvement 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.

California Red-legged Frog

California red-legged frogs prefer 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 (Jennings and Hayes 1994; Stebbins 1951).

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 project area, just west of South Shingle Springs Springs Road. 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 (Jennings and Hayes 1985). 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 0.7-1.2 meters within one 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 project area and nearby ponds.

Environmental Consequences

Layne's Butterweed

All of the build alternatives would result in the permanent loss of 0.01 acre of occupied habitat for the Layne's butterweed. The loss of the Ponderosa Road population of Layne's butterweed, a federally-listed (Threatened) species requires consultation with the USFWS under Section 7 of the federal Endangered Species Act. The Biological Assessment prepared to evaluate the two listed species was sent to the USFWS to initiate formal consultation.

The USFWS prepared a Biological Opinion which was received by El Dorado County on June 9, 2010. This Biological Opinion documented the USFWS concurrence with the Biological Assessment that the project would adversely affect Layne's Butterweed, but 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, 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 will not alter the species' distribution.

4. Conservation measures being implemented by El Dorado County.

These conservation measures are provided in the Avoidance, Minimization and/or Mitigation Measures section below.

California Red-legged Frog

Focused surveys performed for the state-listed California red-legged frog did not detect this species in or near the project area. Therefore, no individuals would be affected by any of the build alternatives.

Avoidance, Minimization and/or Mitigation Measures

Layne's Butterweed

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.

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 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.

2.3.6 Invasive Species

Regulatory Setting

On February 3, 1999, President William J. Clinton signed Executive Order (EO) 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as “any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health." Federal Highway Administration (FHWA) guidance issued August 10, 1999 directs the use of the State’s invasive species list maintained by the California Invasive Species Council to define the invasive species that must be considered as part of the National Environmental Policy Act (NEPA) analysis for a proposed project.

Affected Environment

A NES was prepared for this project in December of 2008 and updated in July of 2015. 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 are rated by the California Department of Food and Agriculture under their weed management program. Weeds with “A” rating status are primary targets for eradication, containment, or quarantine. Skeleton weed is found in disturbed annual grassland habitat within the project area (Table 32).

Table 32: Weedy Plant Species Identified in the Project Area

Scientific Name	Common Name	Habitat	Weed Rating*
Chondrilla juncea	Skeleton weed	Grassland	**A**
Aegilops triuncialis	Goat grass	Grassland	**B**
Cynodon dactylon	Bermuda grass	Ruderal	**C**
Centaurea solstitialis	Yellow star thistle	Grassland/Ruderal	**C**
Carduus pycnocephalus	Italian thistle	Woodland	**C**
Taeniathrum caput medusae	Medusa head	Grassland	**C**
Tribulus terrestris	Puncture vine	Ruderal	**C**

* California Department of Food and Agriculture Weed Management Ratings:
A" – Eradication, containment, rejection, or other holding action at the state-county level. Quarantine interceptions to be rejected or treated at any point in the state
"B" – Eradication, containment, control or other holding action at the discretion of the commissioner
"C" – State endorsed holding action and eradication only when found in a nursery; action to retard spread outside of nurseries at the discretion of the commissioner; reject only when found in a cropseed for planting or at the discretion of the commissioner

In addition to the state-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

Construction activities and soil disturbance from the proposed project could result in the introduction and spread of noxious weeds and other invasive plants, as could inappropriate erosion control measures. Erosion control measures such as use of straw bales and seed can also result in the inadvertent introduction of invasive plants to the project area. The project area already is heavily impacted by non-native species, and no new invasive species should be introduced. 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:

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.

Measures BIO-18: To minimize the risk of the risk of introducing additional non-native species into the area, weed-free erosion control applications shall be used. No dry-farmed straw will be used and certified weed-free straw shall 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 shall also be certified weed-free and contain native species appropriate for the project area.

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 shall employ whatever cleaning methods (typically with the use of a high-pressure water hose) are necessary to ensure that equipment is free of noxious weeds. Equipment shall 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.

2.4 Cumulative Impacts

Regulatory Setting

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

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

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

Affected Environment

The cumulative impact analyses included in this section is based on projects that are currently proposed, approved, or under construction within the County of El Dorado within a two-mile radius of the project area. A current list of projects included in the cumulative analysis is presented in Table 33.

Table 33: Planned and Future Development in the Project Vicinity

Project/Activity	Jurisdiction	Project/Action Summary	Status
Mixed Use Development	El Dorado County	A DEVELOPMENT PLAN FOR 14 SINGLE FAMILY RE SIDENTIAL LOTS, RANGING IN SIZE FROM 5,151 SQ FT TO 9,590 SQ FT, A 3.28 ACRE HOTEL SITE, A 4.94 ACRE SITE TO INCLUDE A RESTAURANT, FOOD MARKET, AND A TWO-STORY RETAIL AND OFFICE BUILDING, AND TWO OPEN SPACE LOTS TOTALLING 35,506 SQ FT NORTH SIDE OF WILD	Tentative Map, Development Plan, General Plan Amendment, and Rezone in progress.

Project/Activity	Jurisdiction	Project/Action Summary	Status
		CHAPARRAL DRIVE 500 FT WEST OF THE INTERSECTION WITH CROSSWOOD DRIVE IN THE SHINGLE SPRINGS AREA	
Residential	El Dorado County	REQUEST FOR PHASE 1 FINAL MAP TO CREATE 12 LOTS RANGING IN SIZE FROM 1.003 TO 1.583 ACRES ON THE 14.438-ACRE SITE. S SIDE OF MEDER RD 0.9 MI W OF INTERSECTION WITH PONDEROSA RD IN SHINGLE SPRINGS AREA.	Final Map Application in progress.
Residential	El Dorado County	TENTATIVE SUBDIVISION TO CREATE 5 LOTS RANGING FROM 1.0 TO 1.07 ACRES AND A REZONE FROM RE-5 TO R1A. ON THE E SIDE OF SIERRAMA DR APPROX 2,400 FT N OF THE INTERSECTION WITH MEDER RD IN THE SHINGLE SPRINGS AREA	Tentative Map Extension Approved.
Residential	El Dorado County	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. SOUTH OF U.S. 50 BETWEEN FRENCH CREEK ROAD AND OLD FRENCHTOWN ROAD, SOUTH OF BUCKEYE ROAD NEAR INTERSECTION WITH SHINGLE SPRINGS DRIVE IN THE SHINGLE SPRINGS AREA	Development Plan, Tentative Map, General Plan Amendment, and Rezone applications on hold.
Commercial	El Dorado County	PROPOSED 90 UNITS IN A COMMUNITY CARE FACILITY AND AN ASSISTED LIVING FACILITY, AN A CLUBHOUSE FOR A PROJECT TOTAL OF 115,650 SF. WEST OF PONTE MORINO DRIVE 0.2 MILES NORTH OF INTERSECTION WITH PALMER DRIVE	Parcel Map, Planned Development, General Plan Amendment, and Rezone Applications in progress.
Cameron Park Interchange Improvement	Caltrans	PHASED INTERCHANGE IMPROVEMENTS TO THE TRANSPORTATION FACILITIES AT	Project Planning/ Alternatives Development

Project/Activity	Jurisdiction	Project/Action Summary	Status
		U.S. 50 AND CAMERON PARK DRIVE.	
U.S. 50 HOV Lanes	Caltrans	WIDENING 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.

Environmental Consequences

Transportation projects and other actions requiring federal approval are generally subject to laws and permit processes requiring consideration of and mitigation for impacts to special-status species and their habitats; wetlands/water of the U.S.; to water quality, cultural resources; and parklands. These laws and requirements assure that impacts of such undertakings will be fully mitigated. Minimization and mitigation for these projects ensure that they have no contribution to cumulative impacts.

With these projects and the U.S. 50/Ponderosa Road Interchange Improvement Project, there are several environmental resources that could be subject to cumulative operational impacts. Only environmental resources that have potential project specific impacts are discussed below.

Community Impacts

Resource Study Area

The resource study area for community impacts is intended to encompass an area where population and housing impacts of project operation could reasonably occur. Specifically, the communities and businesses located directly adjacent to the project area

Direct Impacts to Resources of Concern

Each Build Alternative will require varying amounts of property acquisitions, both from partial and full takes, adjacent to existing project ROW. The project will result in minor increases in noise, minor changes to visual quality, improvement in traffic operations, and improvement in air quality.

Indirect Impacts to Resources of Concern

Construction of the proposed project will occur concurrently with other ongoing and planned projects in the vicinity. The Build Alternatives will result in substantial reductions in traffic congestion and LOS in the project area as well as increases in traffic safety. The proposed project will have no negative impacts to long-term additional employment, income, housing opportunities, and business opportunities in the region. Other projects in the resource study area that are improving road conditions will contribute to improving the overall transportation network of the region.

Cumulative Impacts

All of the relevant projects planned for the project area are consistent with land use policies and designations for the El Dorado County General Plan. Planned development in the project vicinity, in conjunction with each of the Build Alternatives, will not result in adverse cumulative community impacts. Build Alternative 1 and 2 will result in the displacement of one business that would require relocation; however, this does not constitute a cumulative impact when considering other projects in the area and the large numbers of available relocation opportunities. No other projects in the study area are proposing to displace businesses. Consequently, available commercial property for any relocation associated with this project will be available. The proposed project will not induce unplanned growth or have cumulative effects beyond those already envisioned and planned for in the El Dorado County General Plan. Thus, no cumulative impacts are anticipated with respect to community impacts.

Utilities/Emergency Services

Resource Study Area

The resource study area for utilities/emergency services is intended to cover all areas that are being provided services by the utilities/emergency services used within the proposed project area. For utilities, this consists of all water, telephone and cable, high-pressure gas, sewer, communication, manhole/water valve, and telecom facilities. For emergency services, this area consists of all fire, police, and ambulance services.

Direct Impacts to Resources of Concern

The proposed project will accommodate for all utilities located within the project area with minimal interruption of services to customers. Also, the proposed project will not result in a need for any additional water supplies, nor will it generate a substantial amount of wastewater or require new water supplies. Adequate fire, police, and ambulance services are currently being provided in the resource study area. A result of this project will be improved response times for these emergency services.

Indirect Impacts to Resources of Concern

Construction activities of one or more of the projects have the potential to result in temporary, localized, site-specific disruptions, including partial and/or complete street and lane closures, and detours. This could lead to an increase in delay times for emergency response vehicles during construction. The potential for disruption or obstruction of emergency services access in the project area to occur as a result of construction activities will be avoided with the preparation of a Transportation Management Plan. The plan will take into consideration other projects being constructed along Ponderosa Road as well as along U.S. 50. Cumulative impacts are not anticipated. If they occur, they will be minor and temporary.

Cumulative Impacts

Continued development in the project area as envisioned by the County General Plan will create additional demand for local utility and emergency services. The development review process in El Dorado County requires that prior to development approval, adequate utility service is

provided to each project. In addition, each project is reviewed by emergency service providers to ensure that adequate services can be provided, and if not, appropriate mitigation is required. Due to the extensive review process, there are adequate utilities and emergency services to accommodate for the proposed project and all other planned projects in the resource study area. There will not be a cumulative impact on these services.

Traffic and Transportation/Pedestrian and Bicycle Facilities

Resource Study Area

The resource study area for traffic and transportation as well as pedestrian and bicycle facilities include the routes that use the Ponderosa Road interchange. This includes U.S. 50, Ponderosa Road, North Shingle Road, Wild Chaparral Drive, Mother Lode Drive, Durock Road, South Shingle Springs Road, the interchange facilities, and connections to the greater transportation area network.

Direct Impacts to Resources of Concern

In recent years El Dorado County has experienced an increase in growth. As a result, there are many planned improvements needed within the transportation network to accommodate for the additional traffic. The traffic analysis for the proposed project is based on future traffic conditions in the year 2035, which account for future development in the project area. As a result, the analysis contained in Section 2.1.5 constitutes the operational cumulative analysis for the proposed project.

Indirect Impacts to Resources of Concern

Construction activities of one or more of the projects have the potential to result in temporary, localized, site-specific disruptions, including partial and/or complete street and lane closures, and detours. This could lead to an increase in delay times for vehicles during construction. No road closures are anticipated for the proposed project. The potential for disruption or obstruction of access in the project area will be avoided with the preparation of a Transportation Management Plan that takes into consideration any other projects being constructed along U.S. 50 or Ponderosa Road that could have the potential to contribute to cumulative construction impacts. While Bicycle Facilities are being constructed, cyclists will be able to use the road as a Class III facility. When feasible, pedestrian facilities will be maintained to ADA standards during construction. As a result, construction of the proposed project will not contribute to any impacts on pedestrian or bicycle transportation. Cumulative impacts are not anticipated. If they occur, they will be minor and temporary.

Cumulative Impacts

Permanent cumulative effects will be beneficial, as the project will improve levels of service on the transportation facilities in the project area. The Transportation Management Plan would minimize the potential for cumulative traffic impacts associated with construction activities.

Visual Resources

None of the project build alternatives have a potential to significantly impact Visual Resources in the project area. The project would necessitate the removal of oak woodlands but would not substantially degrade or change the visual character in the project area. As a result, there is no potential for cumulative impacts to visual resources.

Water Quality and Stormwater Run-off

Resource Study Area

The resource study area for water quality and stormwater run-off is the Sierra Nevada Mountain Foothills watershed.

Direct Impacts to Resources of Concern

The proposed project in combination with other roadway improvements and development in the area will contribute to increased pollutants in stormwater run-off that if not mitigated could adversely affect local and regional surface water quality. BMPs will be implemented in compliance with the NPDES permit requirement to minimize the potential for impacts to water quality, including the violation of any water quality standard or waste discharge requirement. It is not anticipated that there will be a measurable increase in the amount of waterborne pollutants existing on the proposed project site with the implementation of the identified minimization measures; therefore, the potential for cumulative impacts will be minimal. It is further assumed that other projects will be required to obtain an NPDES permit and to comply with the provision of that permit, thus reducing their potential for water quality impacts.

Indirect Impacts to Resources of Concern

Construction of the proposed project, in the context of simultaneous construction of other nearby projects, could have a temporary adverse additive cumulative impact on water quality. Strict adherence to permit conditions and stormwater pollution prevention plans will be required. With implementation of the above avoidance, minimization, and mitigation measures in conjunction with acquisition of the necessary water quality permits (in particular Section 402 of the CWA), no cumulatively considerable contribution to the degradation of surface waters within the region are anticipated from the proposed project. Cumulative effects, if they occur, will be minor and temporary.

Cumulative Impacts

The project will 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 the result of increased erosion in the channel. To avoid the potential for water quality cumulative impacts, a SWPPP will be prepared as the Special Provisions of the construction contract and a Section 402 Clean Water Act NPDES permit will be prepared. Implementation of these requirements will ensure the project will not contribute to cumulative water quality impacts.

Geology/Soils/Seismicity/Topography

The potential impact to geology and soils is due to impacts related to NOA in the project area. Measures to reduce these impacts are included in Section 2.2.6 Air Quality. Cumulative impacts to NOA are discussed in the Air Quality section (below) of this cumulative resources discussion.

Hazardous Waste/Materials

Resource Study Area

The resource study area for hazardous waste/materials includes the project site and the properties immediately adjacent.

Direct Impacts to Resources of Concern

Historically, hazardous waste/materials were used during construction; specifically hazards such as lead and asbestos. Projects in the area that have demolished or modified structures constructed prior to 1978 (use of lead) or 1981 (use of asbestos) have potentially encountered hazardous materials. The proposed project, in combination with other projects in the area, has the potential to spread or release of hazardous materials, which could affect nearby residents and businesses. However, this project will not contribute to any cumulative impacts because any potential effects will be mitigated through testing and remediation required under CEQA, NEPA, and other regulatory agencies and implementation of standard mitigation measures including cleanup requirements for individual projects that may encounter contaminated soil or groundwater.

Indirect Impacts to Resources of Concern

The primary types of hazardous material-related impacts attributable to the construction of roadway projects are from the handling of contaminated soil encountered during construction. Any contaminated material encountered during the construction of the proposed project or any of the others in the vicinity will be handled, transported, and disposed in accordance with all applicable laws, regulations, and agency oversight.

Cumulative Impacts

The primary types of hazardous material-related impacts attributable to the construction of roadway projects are from the handling of contaminated soil encountered during construction. Because any contaminated material encountered during the construction of the project or any of the others in the vicinity would be handled, transported, and disposed in accordance with all

applicable laws, regulations, and agency oversight, cumulative adverse impacts are not anticipated.

Air Quality

Resource Study Area

The resource study area for air quality is considered to be the El Dorado County which is administered by the AQMD.

Direct Impacts to Resources of Concern

Historically, air quality was a concern that resulted in the U.S. EPA enforcing the Federal Clean Air Act of 1970 (with amendments in 1977 and 1990). El Dorado County is designated as a moderate nonattainment area for Ozone and PM_{10}.

The proposed project is listed in the conforming 2016 MTP/SCS and 2017/2020 MTIP, the design concept and scope proposed are the same as the design concept and scope in the MTP/SCS and MTIP listings. The proposed project meets the Regional- and Project-Level Air Quality Conformity requirements. The air quality analysis discussed is based on future traffic conditions in the year 2035, which accounts for development in the project area and region as envisioned in local General Plans, SACOG Projections, and the roadway improvements listed in the MTP and RTIP. In addition, the proposed project will alleviate congestion in the project area, improving air quality.

Indirect Impacts to Resources of Concern

Air quality impacts during construction of the U.S. 50/Ponderosa Road Interchange Improvement Project will not be substantial due to the relative scale of the project. Measures for air quality, dust control, and NOA fugitive dust, during construction, as stipulated by the AQMD and Caltrans Standard Specifications Section 10 and Section 14-9 of the Caltrans Standard Specifications (2015) will also be implemented as necessary to ensure the proposed project does not contribute to cumulative impacts on air quality.

Cumulative Impacts

Analysis contained in Section 2.2.6 constitutes the operational cumulative analysis for the proposed project and finds that implementation of the project will not result in any cumulative impacts.

Noise

Resource Study Area

The resource study area for the noise includes the project site and properties immediately adjacent.

Direct Impacts to Resources of Concern

Historically, the resource study area was minimally developed. Growth and new development in El Dorado County increased along with other areas of California from 1980 through 2014. An increase in noise was associated with this development. U.S. 50 is currently the loudest noise that impacts properties in and adjacent to the project. Noise from the highway was monitored and included in the project's Noise model. The operational noise impact analysis proposed for the proposed project is predicated based on future traffic projections. These future projections assume other projects in the vicinity to be in place and functioning as planned. No additional cumulative impacts, therefore, are expected beyond those that are disclosed in the impact noise analysis. Noise from existing and proposed development and projects is incorporated into any decisions regarding abatement. Other planned development in the project area will also be required to include design features to mitigate or abate noise impacts.

Indirect Impacts to Resources of Concern

Noise from equipment required for the proposed project could have noise levels that will generally range from 80 to 85 dBA during peak periods at 50 feet from the center of construction activities. Construction of the proposed project in conjunction with other nearby projects could increase overall background noise levels; however, given the distance of the four closest projects surrounding the project area and the measures to minimize construction noise required on projects, it is unlikely that the proposed project will result in a cumulative impact.

Cumulative Impacts

On a cumulative level, vehicle generated noise tends to be less substantial because noise dissipation occurs over a relatively short distance from the subject roads and impacts to sensitive receptors are limited to the project vicinity. No cumulative impacts are anticipated because the proposed project would not substantially change the current noise levels from the existing facilities.

Biological Environment

Resource Study Area

The resource study area for the biological environment consists of adjacent water resources and suitable habitat for the sensitive species that have the potential to occur within the project's biological study area. Historically, as development has increased in the surrounding area, suitable habitat for these species has decreased.

The following analysis relies on information on the known landowners, growth pressures, and projects in the area and the known plans and policies of the local jurisdictions to make a qualitative assessment regarding the significance of the proposed project's contribution of impacts to those of other actions in the Ponderosa Road Interchange Improvement project cumulative impact analysis area.

Natural Communities

Direct Impacts to Resources of Concern

The permanent loss of 1.5 to 5.05 acres of blue oak woodland will contribute to the cumulative loss of this valuable plant community in the El Dorado County region, and contributes to the adverse cumulative impacts to wildlife dependent on oak woodlands. The El Dorado County OWMP states that when oak canopy removal is necessary to complete County CIP projects, such projects are exempt from the canopy retention and replacement standards. This exemption applies to road widening and realignments that are necessary to increase capacity, to protect the public's health, and to improve the safe movement of people and goods in existing public road rights-of-way, as well as acquired rights-of-way necessary to complete the project. This project meets the exemption criteria because it is a component of the County's CIP and is necessary to increase capacity, protect the health, and improve the safe movement of people and goods in existing public road rights-of-way; however, the County will nevertheless replace any removed oak tree canopy (based on Option A of General Plan Policy 7.4.4.4) on-site of the project area, where feasible, at a 1:1 ratio and by incorporating oak plantings to the greatest extent possible in the landscape plan created during final design of the project. Additionally, the County will implement measures BIO-1 through BIO-8 to compensate for cumulative loss of blue oak woodland caused by this project, in combination with the losses incurred from other present and potential future projects.

Indirect Impacts to Resources of Concern

Habitats present within the project site are judged low quality for protected species because of their proximity to residential and commercial development and existing roads; therefore, many plants and animals potentially present are either relatively tolerant of human presence or are already being negatively affected by current conditions. Construction activities will result in the disturbance of habitats in the project area; however, activities will be confined by ESA fencing to as small of an area as possible. Vegetation will be trimmed, rather than removed, where possible. No sensitive habitats will be impacted outside of the Oak Woodland Habitat discussed above. Construction will not have a cumulatively considerable contribution to the decline of sensate habitats in the region. Other projects in the region will also be required (by USFWS, CDFG, and local jurisdictions) to avoid, minimize, and mitigate for construction impacts on habitats that are potentially suitable for protected species. Consequently, there will not be a cumulative impact on sensitive habitats.

Cumulative Impacts

The County shall mitigate by payment into the County's Oak Woodland Conservation fund to compensate for loss of oak woodland habitat within the project area, and by incorporating oak plantings to the greatest extent possible in the landscape plan created during final design of the project; therefore the proposed project's contribution to the loss of sensitive vegetation communities is not cumulatively considerable.

Threatened and Endangered Species

Direct Impacts to Resources of Concern

The loss of the Ponderosa Road population of Layne's butterweed, a state and federal listed species, is considered a significant impact according to CEQA guidelines. However, this loss

will not diminish the range of Layne's butterweed, or eliminate a population that is unique in its occupied habitat or location. This species is thought to be a primary colonizer of disturbed ground. The exposed road embankment where the Layne's butterweed population occurs in the Ponderosa Road Interchange Improvement project area represents typical habitat for the plant. The location of this population falls within the southern portion of the Pine Hill Formation as defined by the USFWS recovery plan (USFWS 2002). This section of the plants overall distribution contains 49 percent of all the Layne's butterweed populations in the Pine Hill region. Small, disjunct populations are also found in Tuolumne and Yuba Counties and represent the current known limits of the species' range. The population in the Ponderosa Road Interchange Improvement project is located in the core portion of the species' range where its occurrence is most frequent. The population is found within one mile of the Cameron Park preserve of the USFWS proposed system of preserves for a number of gabbro soil endemics (USFWS 2002).

Indirect Impacts to Resources of Concern

Based on the biological surveys done no indirect impacts are expected for the two Threatened or Endangered species analyzed for this project: Layne's butterweed and California red-legged frog. No indirect impacts are expected as a result of the construction of this project.

Cumulative Impacts

With implementation of compensatory mitigation, as specified in the Biological Opinion issued by the USFWS, loss of the Layne's butterweed populations at the project site is expected to reduce the cumulative impacts to less than significant levels.

Invasive Species

Direct Impacts to Resources of Concern

Transportation corridors and construction activities provide opportunities for the spread of invasive species through the landscape. Non-native seed can inadvertently be introduced into corridors on equipment during construction and through the use of imported soil or mulch materials.

Indirect Impacts to Resources of Concern

No indirect impacts as a result of invasive species are anticipated.

Cumulative Impacts

Erosion control and landscaping designs for the proposed project will not contain species on the California list of noxious weeds in the plant selections or the seed mixtures. In order to reduce impacts from invasive species, Section 2.3.6 includes a discussion of avoidance, minimization, and mitigation measures. These measures will reduce invasive species impacts to a less than significant level and will ensure the project does not contribute to cumulative impacts.

2.5 Climate Change (CEQA)

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

While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change (IPCC) by the United Nations and World Meteorological Organization in 1988 has led to increased efforts devoted to GHG emissions reduction and climate change research and policy. These efforts are primarily concerned with the emissions of GHGs generated by human activity, including carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF_6), HFC-23 (fluoroform), HFC-134a (s, s, s, 2-tetrafluoroethane), and HFC-152a (difluoroethane).

In the U.S., the main source of GHG emissions is electricity generation, followed by transportation.[5] In California, however, transportation sources (including passenger cars, light-duty trucks, other trucks, buses, and motorcycles) are the largest contributors of GHG emissions.[6] The dominant GHG emitted is CO_2, mostly from fossil fuel combustion.

Two terms are typically used when discussing how we address the impacts of climate change: “greenhouse gas mitigation” and “adaptation.” "Greenhouse gas mitigation" is a term for reducing GHG emissions to reduce or "mitigate" the impacts of climate change. “Adaptation" refers to planning for and responding to impacts resulting from climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels).

Regulatory Setting

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

Federal

[5] https://www.epa.gov/ghgemissions/us-greenhouse-gas-inventory-report-1990-2014

[6] https://www.arb.ca.gov/cc/inventory/data/data.htm

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

The National Environmental Policy Act (NEPA) (42 United States Code [USC] Part 4332) requires federal agencies to assess the environmental effects of their proposed actions prior to making a decision on the action or project.

The Federal Highway Administration (FHWA) recognizes the threats that extreme weather, sea-level change, and other changes in environmental conditions pose to valuable transportation infrastructure and those who depend on it. FHWA therefore supports a sustainability approach that assesses vulnerability to climate risks and incorporates resilience into planning, asset management, project development and design, and operations and maintenance practices.[7] This approach encourages planning for sustainable highways by addressing climate risks while balancing environmental, economic, and social values—"the triple bottom line of sustainability."[8] Program and project elements that foster sustainability and resilience also support economic vitality and global efficiency, increase safety and mobility, enhance the environment, promote energy conservation, and improve the quality of life. Addressing these factors up front in the planning process will assist in decision-making and improve efficiency at the program level, and will inform the analysis and stewardship needs of project-level decision-making.

Various efforts have been promulgated at the federal level to improve fuel economy and energy efficiency to address climate change and its associated effects.

The Energy Policy Act of 1992 (EPACT92, 102nd Congress H.R.776.ENR): With this act, Congress set goals, created mandates, and amended utility laws to increase clean energy use and improve overall energy efficiency in the United States. EPACT92 consists of 27 titles detailing various measures designed to lessen the nation's dependence on imported energy, provide incentives for clean and renewable energy, and promote energy conservation in buildings. Title III of EPACT92 addresses alternative fuels. It gave the U.S. Department of Energy administrative power to regulate the minimum number of light-duty alternative fuel vehicles required in certain federal fleets beginning in fiscal year 1993. The primary goal of the Program is to cut petroleum use in the United States by 2.5 billion gallons per year by 2020.

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

Energy Policy and Conservation Act of 1975 (42 USC Section 6201) and Corporate Average Fuel Standards: This act establishes fuel economy standards for on-road motor vehicles sold in

[7] https://www.fhwa.dot.gov/environment/sustainability/resilience/

[8] https://www.sustainablehighways.dot.gov/overview.aspx

the United States. Compliance with federal fuel economy standards is determined through the Corporate Average Fuel Economy (CAFE) program on the basis of each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the United States.

Executive Order 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*, 74 *Federal Register* 52117 (October 8, 2009): This federal EO set sustainability goals for federal agencies and focuses on making improvements in their environmental, energy, and economic performance. It instituted as policy of the United States that federal agencies measure, report, and reduce their GHG emissions from direct and indirect activities.

Executive Order 13693, *Planning for Federal Sustainability in the Next Decade*, 80 Federal Register 15869 (March 2015): This EO reaffirms the policy of the United States that federal agencies measure, report, and reduce their GHG emissions from direct and indirect activities. It sets sustainability goals for all agencies to promote energy conservation, efficiency, and management by reducing energy consumption and GHG emissions. It builds on the adaptation and resiliency goals in previous executive orders to ensure agency operations and facilities prepare for impacts of climate change. This order revokes Executive Order 13514.

U.S. EPA's authority to regulate GHG emissions stems from the U.S. Supreme Court decision in *Massachusetts* v. *EPA* (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Clean Air Act and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court's ruling, U.S. EPA finalized an endangerment finding in December 2009. Based on scientific evidence it found that six GHGs constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing Act and EPA's assessment of the scientific evidence that form the basis for EPA's regulatory actions.

U.S. EPA in conjunction with the National Highway Traffic Safety Administration (NHTSA) issued the first of a series of GHG emission standards for new cars and light-duty vehicles in April 2010[9] and significantly increased the fuel economy of all new passenger cars and light trucks sold in the United States. The standards required these vehicles to meet an average fuel economy of 34.1 miles per gallon by 2016. In August 2012, the federal government adopted the second rule that increases fuel economy for the fleet of passenger cars, light-duty trucks, and medium-duty passenger vehicles for model years 2017 and beyond to average fuel economy of 54.5 miles per gallon by 2025. Because NHTSA cannot set standards beyond model year 2021 due to statutory obligations and the rules' long timeframe, a mid-term evaluation is included in the rule. The Mid-Term Evaluation is the overarching process by which NHTSA, EPA, and ARB will decide on CAFE and GHG emissions standard stringency for model years 2022–2025. NHTSA has not formally adopted standards for model years 2022 through 2025. However, the EPA finalized its mid-term review in January 2017, affirming that the target fleet average of at

[9] http://www.c2es.org/federal/executive/epa/greenhouse-gas-regulation-faq

least 54.5 miles per gallon by 2025 was appropriate. In March 2017, President Trump ordered EPA to reopen the review and reconsider the mileage target.[10]

NHTSA and EPA issued a Final Rule for "Phase 2" for medium- and heavy-duty vehicles to improve fuel efficiency and cut carbon pollution in October 2016. The agencies estimate that the standards will save up to 2 billion barrels of oil and reduce CO_2 emissions by up to 1.1 billion metric tons over the lifetimes of model year 2018–2027 vehicles.

Presidential Executive Order 13783, *Promoting Energy Independence and Economic Growth*, of March 28, 2017, orders all federal agencies to apply cost-benefit analyses to regulations of GHG emissions and evaluations of the social cost of carbon, nitrous oxide, and methane.

State

With the passage of legislation including State Senate and Assembly bills and executive orders, California has been innovative and proactive in addressing GHG emissions and climate change.

Assembly Bill 1493, Pavley Vehicular Emissions: Greenhouse Gases, 2002: This bill requires the California Air Resources Board (ARB) to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009-model year.

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

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

Executive Order S-20-06 (October 18, 2006): This order establishes the responsibilities and roles of the Secretary of the California Environmental Protection Agency (Cal/EPA) and state agencies with regard to climate change.

Executive Order S-01-07 (January 18, 2007): This order sets forth the low carbon fuel standard (LCFS) for California. Under this EO, the carbon intensity of California's transportation fuels is

[10] http://www.nbcnews.com/business/autos/trump-rolls-back-obama-era-fuel-economy-standards-n734256 and https://www.federalregister.gov/documents/2017/03/22/2017-05316/notice-of-intention-to-reconsider-the-final-determination-of-the-mid-term-evaluation-of-greenhouse

to be reduced by at least 10 percent by the year 2020. ARB re-adopted the LCFS regulation in September 2015, and the changes went into effect on January 1, 2016. The program establishes a strong framework to promote the low-carbon fuel adoption necessary to achieve the Governor's 2030 and 2050 GHG reduction goals.

Senate Bill 97 (SB 97), Chapter 185, 2007, Greenhouse Gas Emissions: This bill requires the Governor's Office of Planning and Research (OPR) to develop recommended amendments to the California Environmental Quality Act (CEQA) Guidelines for addressing GHG emissions. The amendments became effective on March 18, 2010.

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

Senate Bill 391 (SB 391), Chapter 585, 2009, California Transportation Plan: This bill requires the State's long-range transportation plan to meet California's climate change goals under AB 32.

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

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

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

Environmental Setting

In 2006, the Legislature passed the California Global Warming Solutions Act of 2006 (AB 32), which created a comprehensive, multi-year program to reduce GHG emissions in California. AB 32 required ARB to develop a Scoping Plan that describes the approach California will take to achieve the goal of reducing GHG emissions to 1990 levels by 2020. The Scoping Plan was first approved by ARB in 2008 and must be updated every 5 years. ARB approved the ***First Update to the Climate Change Scoping Plan*** on May 22, 2014. ARB is moving forward with a

discussion draft of an updated Scoping Plan that will reflect the 2030 target established in EO B-30-15 and SB 32.

The AB 32 Scoping Plan and the subsequent updates contain the main strategies California will use to reduce GHG emissions. As part of its supporting documentation for the Draft Scoping Plan, ARB released the GHG inventory for California.[11] ARB is responsible for maintaining and updating California's GHG Inventory per H&SC Section 39607.4. The associated forecast/projection is an estimate of the emissions anticipated to occur in the year 2020 if none of the foreseeable measures included in the Scoping Plan were implemented.

An emissions projection estimates future emissions based on current emissions, expected regulatory implementation, and other technological, social, economic, and behavioral patterns. The projected 2020 emissions provided in Figure ## represent a business-as-usual (BAU) scenario assuming none of the Scoping Plan measures are implemented. The 2020 BAU emissions estimate assists ARB in demonstrating progress toward meeting the 2020 goal of 431 MMTCO2e.[12] The 2016 edition of the GHG emissions inventory (released June 2016) found total California emissions of 441.5 $MMTCO_2e$, showing progress towards meeting the AB 32 goals.

The 2020 BAU emissions projection was revisited in support of the First Update to the Scoping Plan (2014). This projection accounts for updates to the economic forecasts of fuel and energy demand as well as other factors. It also accounts for the effects of the 2008 economic recession and the projected recovery. The total emissions expected in the 2020 BAU scenario include reductions anticipated from Pavley I and the Renewable Electricity Standard (30 $MMTCO_2e$ total). With these reductions in the baseline, estimated 2020 statewide BAU emissions are 509 $MMTCO_2e$ (Figure 15).

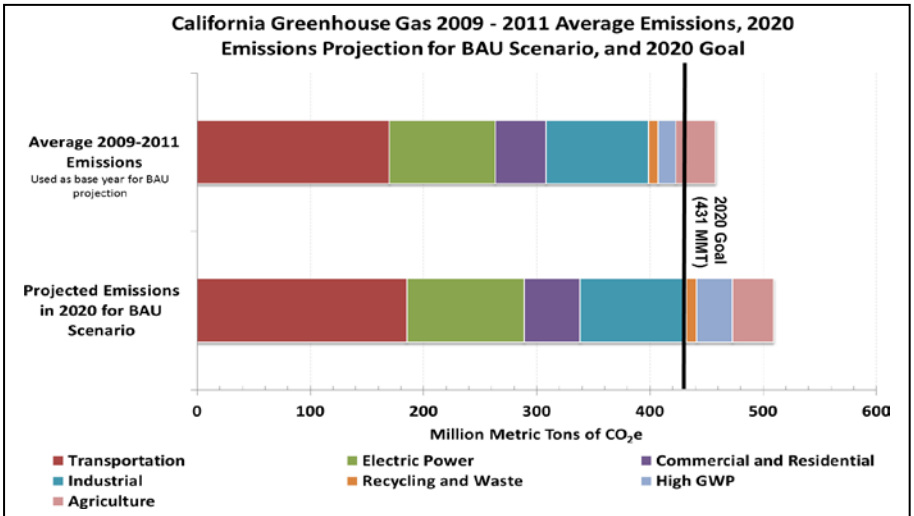
[11] 2016 Edition of the GHG Emission Inventory Released (June 2016): https://www.arb.ca.gov/cc/inventory/data/data.htm

[12] The revised target using Global Warming Potentials (GWP) from the IPCC Fourth Assessment Report (AR4)

Figure 15: 2020 Business as Usual (BAU) Emissions Projection 2014 Edition

Project Analysis

GHG emissions for transportation projects can be divided into those produced during construction and those produced during operations.



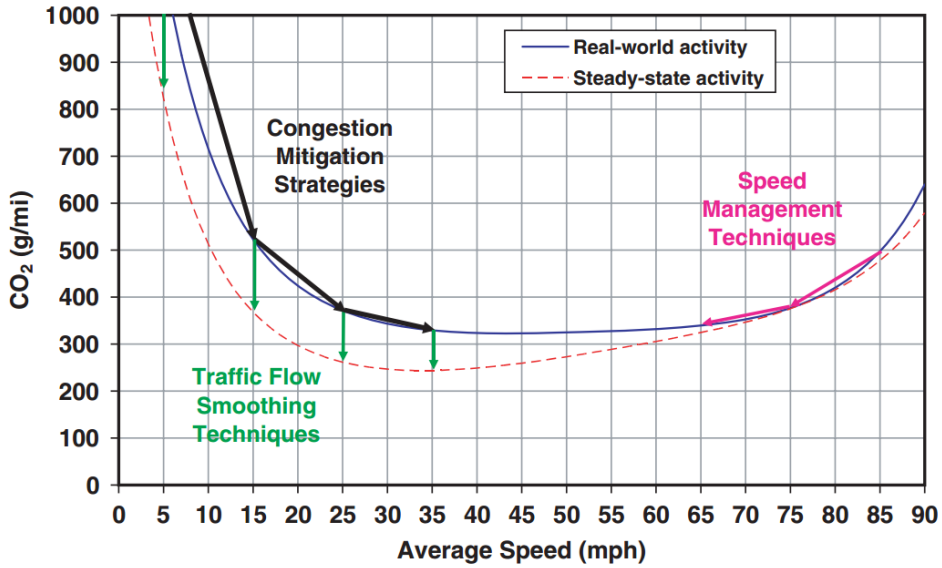
Source: https://www.arb.ca.gov/cc/inventory/data/bau.htm

Operational Emissions

Four primary strategies can reduce GHG emissions from transportation sources: (1) improving the transportation system and operational efficiencies, (2) reducing travel activity), (3) transitioning to lower GHG-emitting fuels, and (4) improving vehicle technologies/efficiency. To be most effective all four strategies should be pursued concurrently.

FHWA supports these strategies to lessen climate change impacts and correlate with efforts that the state of California is undertaking to reduce GHG emissions from the transportation sector.

Figure 16: Possible Effect of Traffic Operation Strategies in Reducing On-Road CO_2 Emissions[13]



The highest levels of CO_2 from mobile sources such as automobiles occur at stop-and-go speeds (0–25 miles per hour) and speeds over 55 miles per hour; the most severe emissions occur from 0–25 miles per hour (see Figure 16 above). To the extent that a project relieves congestion by enhancing operations and improving travel times in high-congestion travel corridors, GHG emissions, particularly CO_2, may be reduced.

The purpose of this project is to reduce congestion and vehicle delay as levels of service continue to degrade through the design year (2035). Traffic volumes would not change between any of the build alternatives when compared to the No-Build Alternative. As the project is included in the Final 2016 MTP and the 2035 RTIP, the project conforms with those plans and is designed to reduce vehicle hours traveled by reducing congestion and queuing times at the interchange, and improving overall traffic flow at the interchange.

As stated in the Air Quality Assessment for the proposed project (Air Quality Impact Analysis 2009), the purpose of the proposed project is to improve operations of the existing U.S. 50/Ponderosa Road interchange. The proposed project will not result in any meaningful changes in traffic volumes, vehicle mix, location of the existing facility, or any other factor that will cause an increase in emissions impacts relative to the No-Build Alternative.

The proposed project's purpose is to reduce delays and congestion. Reductions in VMT and vehicle hours traveled for the SACOG region, as a whole, suggest that transportation related CO_2 emission rates will improve as a result. Additionally, the traffic study prepared for this project shows that the four most directly affected interchange intersections are currently

[13] Traffic Congestion and Greenhouse Gases. Matthew Barth and Kanok Boriboonsomsin (*TR News* 268 May-June 2010) http://onlinepubs.trb.org/onlinepubs/trnews/trnews268.pdf

operating between LOS B and LOS D and are projected to operate at LOS E or F in the year 2035, under future no-build conditions. With the interchange improvements proposed under Build Alternatives 1 and 2, including those associated with each of the project intersections, the transportation system in the project area would operate at an overall much-improved LOS. With the interchange improvements proposed under Build Alternative 3, including those associated with each of the project intersections, the transportation system in the project area would operate at an overall slightly improved LOS.

Under the No-Build Alternative, there would not be any improvements to the existing interchange and degrading levels of service in the project area would not be relieved.

Quantitative Analysis

While LOS would become worse without the project, the proposed project traffic volumes are not expected to change based on the Build Alternatives versus the No-Build Alternative. The proposed project will not generate new trip sources or destinations but will only increase capacity and transportation efficiency along Ponderosa Road, Wild Chaparral Drive, North Shingle Road, Mother Lode Drive, and Durock Road. The project accommodates anticipated traffic volumes and would not substantially change the vehicle miles traveled at the interchange. As a result, the No-Build Alternative and the each of the Build Alternatives would generate the same amount of CO_2. Based on the 2007 EMFAC model and traffic volumes in the Traffic Study, the No-Build and Build Alternatives would generate 20 lbs/day of CO_2 in Year 2012 and 40 lbs/day of CO_2 in Year 2035 (see Table 34) for trips going over the Ponderosa Road Overpass.

Table 34: Quantitative CO_2 Emissions

Study Segment	Year 2012				Year 2035			
	Alternative 1	Alternative 2	Alternative 3	No Build Alternative	Alternative 1	Alternative 2	Alternative 3	No Build Alternative
Over-pass	20 lbs	20 lbs	20 lbs	20 lbs	40 lbs	40 lbs	40 lbs	40 lbs

Note: Modeled using EMFAC 2007, Burden Mode; Calculated for the summer season. EMFAC output data included in Appendix E of this document.

While EMFAC has a rigorous scientific foundation and has been vetted through multiple stakeholder reviews, its emission rates are based on tailpipe emission test data. The numbers are estimates of CO_2 emissions and not necessarily the actual CO_2 emissions. The model does not account for factors such as the rate of acceleration and the vehicles' aerodynamics, which would influence CO_2 emissions. To account for CO_2 emissions, ARB's GHG Inventory follows the IPCC guideline by assuming complete fuel combustion, while still using EMFAC data to calculate CH_4 and N_2O emissions. Though EMFAC is currently the best available tool for use in calculating GHG emissions, it is important to note that the CO_2 numbers provided are only useful for a comparison of alternatives.

Construction Emissions

Construction GHG emissions would result from material processing, on-site construction equipment, and traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases.

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

To reduce construction emissions, the proposed project will incorporate Measures AQ-1 and AQ-2.

CEQA Conclusion

While construction will result in a slight increase in GHG emissions, it is anticipated that any increase in GHG emissions due to construction will be offset by no additional increases in local GHG emissions and improvement in regional operational GHG emissions. While it is the County's determination that in the absence of further regulatory or scientific information related to GHG emissions and CEQA significance, it is too speculative to make a significance determination regarding the project's direct impact and its contribution on the cumulative scale of climate change, the County is firmly committed to implementing measures to help reduce GHG emissions. These measures are outlined in the following section.

Greenhouse Gas Reduction Strategies

Statewide Efforts

In an effort to further the vision of California's GHG reduction targets outlined an AB 32 and SB 32, Governor Brown identified key climate change strategy pillars (concepts) (Figure 17). These pillars highlight the idea that several major areas of the California economy will need to reduce emissions to meet the 2030 GHG emissions target. These pillars are (1) reducing today's petroleum use in cars and trucks by up to 50 percent; (2) increasing from one-third to 50 percent our electricity derived from renewable sources; (3) doubling the energy efficiency savings achieved at existing buildings and making heating fuels cleaner; (4) reducing the release of methane, black carbon, and other short-lived climate pollutants; (5) managing farm and rangelands, forests, and wetlands so they can store carbon; and (6) periodically updating the state's climate adaptation strategy, *Safeguarding California*.

FIgure 17: The Governor's Climate Change Pillars: 2030 Greenhouse Gas Reduction Goals

The transportation sector is integral to the people and economy of California. To achieve GHG emission reduction goals, it is vital that we build on our past successes in reducing criteria and toxic air pollutants from transportation and goods movement activities. GHG emission reductions will come from cleaner vehicle technologies, lower-carbon fuels, and reduction of vehicle miles traveled. One of Governor Brown's key pillars sets the ambitious goal of reducing today's petroleum use in cars and trucks by up to 50 percent by 2030.

Governor Brown called for support to manage natural and working lands, including forests, rangelands, farms, wetlands, and soils, so they can store carbon. These lands have the ability to remove carbon dioxide from the atmosphere through biological processes, and to then sequester carbon in above- and below-ground matter.

California Transportation Plan (CTP 2040)

The California Transportation Plan (CTP) is a statewide, long-range transportation plan to meet our future mobility needs and reduce GHG emissions. The CTP defines performance-based goals, policies, and strategies to achieve our collective vision for California's future statewide, integrated, multimodal transportation system. It serves as an umbrella document for all of the other statewide transportation planning documents.

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

Project-Level GHG Reduction Strategies

Although no mitigation is required, minimization measure GHG-1 will be implemented in an effort to reduce any GHG emissions and potential climate change impacts from the project:

Measure GHG-1: Energy efficient lighting, such as LED traffic signals and street lights, will be used when possible.

Adaptation Strategies

"Adaptation strategies" refer to how El Dorado County and others can plan for the effects of climate change on the state's transportation infrastructure and strengthen or protect the facilities from damage—or, put another way, planning and design for resilience. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and their intensity, and the frequency and intensity of wildfires. These changes may affect the transportation infrastructure in various ways, such as damage to roadbeds from longer periods of intense heat; increasing storm damage from flooding and erosion; and inundation from rising sea levels. These effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. These types of impacts to the transportation infrastructure may also have economic and strategic ramifications.

Federal Efforts

At the federal level, the Climate Change Adaptation Task Force, co-chaired by the CEQ, the Office of Science and Technology Policy (OSTP), and the National Oceanic and Atmospheric Administration (NOAA), released its interagency task force progress report on October 28, 2011,[14] outlining the federal government's progress in expanding and strengthening the nation's capacity to better understand, prepare for, and respond to extreme events and other climate change impacts. The report provided an update on actions in key areas of federal adaptation, including: building resilience in local communities, safeguarding critical natural resources such as fresh water, and providing accessible climate information and tools to help decision-makers manage climate risks.

The federal Department of Transportation issued *U.S. DOT Policy Statement on Climate Adaptation* in June 2011, committing to "integrate consideration of climate change impacts and adaptation into the planning, operations, policies, and programs of DOT in order to ensure that taxpayer resources are invested wisely and that transportation infrastructure, services and operations remain effective in current and future climate conditions."[15]

To further the DOT Policy Statement, on December 15, 2014, FHWA issued order 5520 (*Transportation System Preparedness and Resilience to Climate Change and Extreme Weather*

[14] https://obamawhitehouse.archives.gov/administration/eop/ceq/initiatives/resilience

[15] https://www.fhwa.dot.gov/environment/sustainability/resilience/policy_and_guidance/usdot.cfm

Events).[16] This directive established FHWA policy to strive to identify the risks of climate change and extreme weather events to current and planned transportation systems. The FHWA will work to integrate consideration of these risks into its planning, operations, policies, and programs in order to promote preparedness and resilience; safeguard federal investments; and ensure the safety, reliability, and sustainability of the nation's transportation systems.

FHWA has developed guidance and tools for transportation planning that fosters resilience to climate effects and sustainability at the federal, state, and local levels.[17]

State Efforts

On November 14, 2008, then-Governor Arnold Schwarzenegger signed EO S-13-08, which directed a number of state agencies to address California's vulnerability to sea-level rise caused by climate change. This EO set in motion several agencies and actions to address the concern of sea-level rise and directed all state agencies planning to construct projects in areas vulnerable to future sea-level rise to consider a range of sea-level rise scenarios for the years 2050 and 2100, assess project vulnerability and, to the extent feasible, reduce expected risks and increase resiliency to sea-level rise. Sea-level rise estimates should also be used in conjunction with information on local uplift and subsidence, coastal erosion rates, predicted higher high water levels, and storm surge and storm wave data.

Former Governor Schwarzenegger also requested the National Academy of Sciences to prepare an assessment report to recommend how California should plan for future sea-level rise. The final report, *Sea-Level Rise for the Coasts of California, Oregon, and Washington* (Sea-Level Rise Assessment Report)[18] was released in June 2012 and included relative sea-level rise projections for the three states, taking into account coastal erosion rates, tidal impacts, El Niño and La Niña events, storm surge and land subsidence rates; and the range of uncertainty in selected sea-level rise projections. It provided a synthesis of existing information on projected sea-level rise impacts to state infrastructure (such as roads, public facilities, and beaches), natural areas, and coastal and marine ecosystems; and a discussion of future research needs regarding sea-level rise.

In response to EO S-13-08, the California Natural Resources Agency (Resources Agency), in coordination with local, regional, state, federal, and public and private entities, developed *The California Climate Adaptation Strategy* (Dec 2009),[19] which summarized the best available science on climate change impacts to California, assessed California's vulnerability to the identified impacts, and outlined solutions that can be implemented within and across state

[16] https://www.fhwa.dot.gov/legsregs/directives/orders/5520.cfm

[17] https://www.fhwa.dot.gov/environment/sustainability/resilience/

[18] *Sea Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future* (2012) is available at: http://www.nap.edu/catalog.php?record_id=13389.

[19] http://www.climatechange.ca.gov/adaptation/strategy/index.html

agencies to promote resiliency. The adaptation strategy was updated and rebranded in 2014 as *Safeguarding California: Reducing Climate Risk* (Safeguarding California Plan).

Governor Jerry Brown enhanced the overall adaptation planning effort by signing EO B-30-15 in April 2015, requiring state agencies to factor climate change into all planning and investment decisions. In March 2016, sector-specific Implementation Action Plans that demonstrate how state agencies are implementing EO B-30-15 were added to the Safeguarding California Plan. This effort represents a multi-agency, cross-sector approach to addressing adaptation to climate change-related events statewide.

EO S-13-08 also gave rise to the *State of California Sea-Level Rise Interim Guidance Document* (SLR Guidance), produced by the Coastal and Ocean Working Group of the California Climate Action Team (CO-CAT). First published in 2010, the document provided "guidance for incorporating sea-level rise (SLR) projections into planning and decision making for projects in California," specifically, "information and recommendations to enhance consistency across agencies in their development of approaches to SLR." The March 2013 update[20] finalizes the SLR Guidance by incorporating findings of the National Academy's 2012 final Sea-Level Rise Assessment Report; the policy recommendations remain the same as those in the 2010 interim SLR Guidance. The guidance will be updated as necessary in the future to reflect the latest scientific understanding of how the climate is changing and how this change may affect the rates of SLR.

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system from increased precipitation, and flooding; the increased frequency and intensity of storms and wildfires; rising temperatures; and rising sea levels.

The proposed project is outside the coastal zone and not in an area subject to sea-level rise. Accordingly, direct impacts to transportation facilities due to projected sea-level rise are not expected.

[20] http://www.opc.ca.gov/2013/04/update-to-the-sea-level-rise-guidance-document/

CHAPTER 3 - COMMENTS AND COORDINATION

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

3.1 Scoping Process

Several alternatives were developed and considered by the U.S. 50/Ponderosa Interchange Improvement Project Development Team (PDT) that includes El Dorado County Department of Transportation (ELD DOT), Caltrans District 03 staff, along with engineering and environmental planning consultants (David Evans and Associates, Inc.[DEA], Fehr & Peers Transportation Consultants, and PAR Environmental Services, Inc. [PAR]). Viable alternatives (alternative that meet the purpose and need of the proposed project) are discussed in Chapter 1 of the document.

3.2 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 organization with interests in the project.

3.2.1 Interagency Meetings on Biological Resources

The following is a summary of the informal consultation for the Layne's butterweed that has occurred between the contractors (PAR [Jennifer Moore and Virginia Dains] and DEA [Mike Higgins]), the El Dorado County DOT (Jennifer Maxwell), Caltrans (Jason Meigs), and USFWS (Jeremiah Karuza).

December 2, 2008: PAR Environmental received comments from ELD DOT and DEA 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 on December 4th. Others in attendance were: Maxwell, Higgins, Moore, and Chiea.

January 12, 2009: Karuza sent an e-mail to Meigs regarding possible relocation strategies for the Layne's butterweed. At that point, Karuzas was still waiting for concurrence from the CDFG 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-Habiat acquisition or in-lieu fees to be paid by ELD DOT. 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.

3.2.2 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.

3.3 Public Participation

Two informational meetings were 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 each meeting. El Dorado County 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.

Pursuant to CEQA requirements, this proposed Mitigated Negative Declaration will be circulated for 30 days and will solicit public review and comment.

CHAPTER 4 - LIST OF PREPARERS

California Department of Transportation

Amarjeet Benipal	District Director

County of El Dorado

Andrew Gaber	Deputy Director
Adam Bane	Project Manager
Donna Keeler	Principal Planner

Dokken Engineering

Tim Chamberlain	Environmental Document
Namat Hosseinion	Environmental Project Manager
Angela Scudiere	Natural Environment Study Amendment (2015) – Primary Author
Amy Dunay	Supplemental Historic Property Survey Report/Archaeology Survey Report Amendment (2015) – Primary Author

PAR Environmental Services

Jennifer Moore	Historic Property Survey Report/Archaeology Survey Report- Contributing Author
	Community Impact Assessment- Primary Author
	Relocation Impact Assessment- Primary Author
	Mary Maniery Historic Property Survey Report/Archaeology Survey Report- Primary Author
Cindy Baker	Historic Property Survey Report/Archaeology Survey Report- Contributing Author

Susan Sanders Biological Consulting

Susan D. Sanders	Natural Environment Study
	Biological Assessment
Ted C. Beedy	Natural Environment Study
	Biological Assessment

Virginia Dains	Natural Environment Study
	Biological Assessment

KD Anderson

Wayne Shijo	Air Quality Analysis

J.C. Brennan and Associates

Luke Saxelby	Environmental Noise Analysis

Blackburn Consulting

Laura Long	Initial Site Assessment

David Evans and Associates

Mike Higgins	Project Manager
Jeff Binning	Preliminary Drainage Study
Craig Kendal	Storm Water Data Report

CHAPTER 5 - DISTRIBUTION LIST

State Clearinghouse
P.O. Box 3044
Sacramento, CA 95812

El Dorado County DOT
2850 Fairlane Court
Placerville, CA 95667

California Department of Transportation
District 3
Attention: Jason Meigs
703 B Street
Marysville, CA 95901

California Department of Transportation
District 3
Attention: Christel Little
703 B Street
Marysville, CA 95901

Main Library in Placerville
345 Fair Lane
Placerville, CA 95667

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

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

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

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

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

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

Department of California Highway Patrol
3031 LoHi Way
Placerville, CA 95667

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

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

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

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

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

CHAPTER 6 - REFERENCES

Air Quality Technical Report

2009 Air Quality Technical Report for the Ponderosa Road Interchange Improvement Project, El Dorado County, California. Prepared by KD Anderson and Associates. June 2009. Updated August 2011

Biological Assessment for Layne's Butterweed and California Red-legged Frog

2009 Biological Assessment for Layne's Butterweed and California Red-legged Frog for the U.S. 50/Ponderosa Road Interchange Improvement Project, El Dorado County, California. Prepared by Susan Sanders Biological Consulting. May 2009.

Community Impact Assessment

2009 Community Impact Assessment for the U.S. 50/Ponderosa Road Interchange Improvement Project, El Dorado County, California. Prepared by PAR Environmental Services, Inc. February 2009.

El Dorado County General Plan

2003 El Dorado County General Plan Draft Environmental Impact Report (State Clearinghouse No. 2001082030), El Dorado County, California. Adopted 2004.

El Dorado County General Plan

2004 El Dorado County General Plan, El Dorado County, California. Adopted 2004.

Hazardous Waste Initial Site Assessment

2009 Hazardous Waste Initial Site Assessment for the U.S. 50/Ponderosa Road Interchange Improvement Project, El Dorado County, California. Prepared by Blackburn Consulting. January 2009.

Historic Property Survey Report

2008 Historic Property Survey Report for the U.S. 50/Ponderosa Road Interchange Improvement Project, El Dorado County, California. Prepared by PAR Environmental Services, Inc. December 2008.

Natural Environment Study

2009 Natural Environment Study for the U.S. 50/Ponderosa Road Interchange Improvement Project, El Dorado County, California. Prepared by Susan Sanders Biological Consulting. January 2009.

Noise Study Report

2009 Noise Study Report for the U.S. 50/Ponderosa Road Interchange Improvement Project, El Dorado County, California. Prepared by j.c. brennan and associates, Inc. January 2009.

Noise Study Report - Addendum

2009 Addendum to the Noise Study Report for the U.S. 50/Ponderosa Road Interchange Improvement Project, El Dorado County, California. Prepared by j.c. brennan and associates, Inc. February 2009.

Relocation Impact Study

2009 Relocation Impact Study for the U.S. 50/Ponderosa Road Interchange Improvement Project, El Dorado County, California. Prepared by PAR Environmental Services, Inc. April 2009.

Traffic Report

2009 Traffic Report for the U.S. 50/Ponderosa Road Interchange Improvement Project, El Dorado County, California. Prepared by Fehr and Peers Transportation Consultants. March 2009.

2014 US-50/Ponderosa Rd Interchange Volume Assessment. Prepared by Fehr and Peers Transportation Consultants. June 2014.

Visual Impact Assessment

2009 Visual Impact Assessment for the U.S. 50/Ponderosa Road Interchange Improvement Project, El Dorado County, California. Prepared by PAR Environmental Services, Inc. July 2009.

Appendix A California Environmental Quality Act Checklist

The following checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. The California Environmental Quality Act impact levels include "potentially significant impact," "less than significant impact with mitigation," "less than significant impact," and "no impact."

Supporting documentation of all California Environmental Quality Act (CEQA) checklist determinations is provided in Chapter 2 of this Initial Study/Environmental Assessment (IS/EA). Documentation of "No Impact" determinations is provided at the beginning of Chapter 2. Discussion of all impacts, avoidance, minimization, and/or mitigation measures is under the appropriate topic headings in Chapter 2.

The environmental factors checked below will be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

The proposed project will have potentially significant impacts to:

☐	Aesthetics	☐	Agriculture Resources	☒	Air Quality
☒	Biological Resources	☒	Cultural Resources	☐	Geology/Soils
☐	Greenhouse Gas Emissions	☒	Hazards & Hazardous Materials	☒	Hydrology/Water Quality
☐	Land Use/Planning	☐	Mineral Resources	☒	Noise
☐	Population/Housing	☐	Public Services	☐	Recreation
☒	Transportation/ Traffic	☐	Utilities/Service Systems	☐	Mandatory Findings of Significance

CEQA Environmental Checklist

3-ELD-50	8.3/8.7	03-2E550
Dist.-Co.-Rte.	P.M/P.M.	E.A.

This checklist identifies physical, biological, social and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects indicate no impacts. A NO IMPACT answer in the last column reflects this determination. Where there is a need for clarifying discussion, the discussion is included either following the applicable section of the checklist or is within the body of the environmental document itself. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
I. AESTHETICS: Would the project:				
a) Have a substantial adverse effect on a scenic vista	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway	☐	☐	☒	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐
II. AGRICULTURE AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				

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

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☒	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES: Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES: Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☒
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

e) Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code § 21074?	☐	☒	☐	☐
	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
VI. GEOLOGY AND SOILS: Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☒	☐
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
VII. GREENHOUSE GAS EMISSIONS: Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	An assessment of the greenhouse gas emissions and climate change is included in the body of environmental document. While the County has			

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	included this good faith effort in order to provide the public and decision-makers as much information as possible about the project, it is the County's determination that in the absence of further regulatory or scientific information related to GHG emissions and CEQA significance, it is too speculative to make a significance determination regarding the project's direct and indirect impact with respect to climate change. The County does remain firmly committed to implementing measures to help reduce the potential effects of the project. These measures are outlined in the body of the environmental document.			
	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
VIII. HAZARDS AND HAZARDOUS MATERIALS: Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☒	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
IX. HYDROLOGY AND WATER QUALITY: Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☒
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☐	☒
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f) Otherwise substantially degrade water quality?	☐	☒	☐	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
X. LAND USE AND PLANNING: Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒

b)Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact

XI. MINERAL RESOURCES: Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact

XII. NOISE: Would the project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

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

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

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XV. RECREATION:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒
	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact

XVI. TRANSPORTATION/TRAFFIC: Would the project:

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☒	☐	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☒	☐
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒
	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact

XVII. UTILITIES AND SERVICE SYSTEMS: Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☒	☐	☐
	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒
	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Appendix B **Title VI Policy Statement**

DEPARTMENT OF TRANSPORTATION
OFFICE OF THE DIRECTOR
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SACRAMENTO, CA 94273-0001
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Flex your power!
Be energy efficient!

March 2013

NON-DISCRIMINATION POLICY STATEMENT

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964 and related statutes, ensures that no person in the State of California shall, on the grounds of race, color, national origin, sex, disability, religion, sexual orientation, or age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

For information or guidance on how to file a complaint based on the grounds of race, color, national origin, sex, disability, religion, sexual orientation, or age, please visit the following web page: http://www.dot.ca.gov/hq/bep/title_vi/t6_violated.htm.

Additionally, if you need this information in an alternate format, such as in Braille or in a language other than English, please contact the California Department of Transportation, Office of Business and Economic Opportunity, 1823 14th Street, MS-79, Sacramento, CA 95811. Telephone: (916) 324-0449, TTY: 711, or via Fax: (916) 324-1949.

MALCOLM DOUGHERTY
Director

Appendix C Summary of Relocation Benefits and Relocation Impact Memorandum

California Department of Transportation Relocation Assistance Program

RELOCATION ASSISTANCE ADVISORY SERVICES

The California Department of Transportation (Caltrans) will provide relocation advisory assistance to any person, business, farm or non-profit organization displaced as a result of Caltrans' acquisition of real property for public use. Caltrans will assist residential displacees in obtaining comparable decent, safe and sanitary replacement housing by providing current and continuing information on sales price and rental rates of available housing. Non-residential displacees will receive information on comparable properties for lease or purchase.

Residential replacement dwellings will be in equal or better neighborhoods, at prices within the financial means of the individuals and families displaced, and reasonably accessible to their places of employment. Before any displacement occurs, displaces will be offered comparable replacement dwellings that are open to all persons regardless of race, color, religion, sex or national origin, and are consistent with the requirements of Title VIII of the Civil Rights Act of 1968. This assistance will also include supplying information concerning federal and state assisted housing programs, and any other known services being offered by public and private agencies in the area.

Your Rights and Benefits as a Displaced Business, Farm or Nonprofit Organization Under the Uniform Relocation Assistance Program

Introduction

In building a modern transportation system, the displacement of a small percentage of the population is often necessary. However, it is the policy of Caltrans that displaced persons shall not suffer unnecessarily as a result of programs designed to benefit the public as a whole.

Displaced businesses, farms, and nonprofit organizations may be eligible for relocation advisory services and payments.

This brochure provides information about available relocation services and payments. If you are required to move as the result of a Caltrans transportation project, a Relocation Agent will contact you. The Relocation Agent will be able to answer your specific questions and provide additional information.

Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 As Amended "The Uniform Act"

The purpose of this Act is to provide for uniform and equitable treatment of persons displaced from their business, farm or nonprofit organization, by federal and federally assisted programs and to establish uniform and equitable land acquisition policies for federal and federally assisted programs.

49 Code of Federal Regulations Part 24 implements the "Uniform Act" in accordance with the following relocation assistance objective:

> To ensure that persons displaced as a direct result of federal or federally-assisted projects are treated fairly, consistently and equitably so that such persons will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole.

While every effort has been made to assure the accuracy of this booklet, it should be understood that it does not have the force and effect of law, rule, or regulation governing the payment of benefits. Should any difference or error occur, the law will take precedence.

Relocation Services

The California Department of Transportation has two programs to aid businesses, farms and nonprofit organizations which must relocate.

These are:

1. The Relocation Advisory Assistance Program, which is to aid you in locating a suitable replacement property, and

2. The Relocation Payments Program, which is to reimburse you for certain costs involved in relocating. These payments are classified as:

    - Moving and Related Expenses (costs to move personal property not acquired).

    - Reestablishment Expenses (expenses related to the replacement property).

    - In-Lieu Payment (a fixed payment in lieu of moving and related expenses, and reestablishment expenses).

NOTE: *Payment of loss of goodwill is considered an acquisition cost. California law and the federal regulations mandate that relocation payments cannot duplicate other payments such as goodwill. You will* **not** *be eligible to receive any relocation payments until the State has actually made the first written offer to purchase the property. You will also receive at least 90 days' written notice before you must move.*

Some Important Definitions...

Your relocation benefits can be better understood if you become familiar with the following terms:

Business: Any lawful activity, with the exception of a farm operation, conducted primarily for the purchase, sale, lease and rental of personal or real property, or for the manufacture, processing, and/or marketing of products, commodities, or any other personal property, or for the sale of services to the public, or solely for the purpose of this Act, and outdoor advertising display or displays, when the display(s) must be moved as a result of the project.

Displaced Person or Displacee: Any person who moves from real property or moves personal property from real property as a result of the acquisition of the real property, in whole or in part, or as the result of a written notice from the agency to vacate the real property needed for a transportation project. In the case of a partial acquisition, Caltrans shall determine if a person is displaced as a direct result of the acquisition.

Owners and tenants **not lawfully present** in the United States are not eligible to receive relocation payments and assistance.

Contributes Materially: A business or farm operation must have had average annual gross receipts of at least $5,000 **or** average annual net earnings of at least $1,000, or their income must have contributed at least 33 1/3 percent of the owner's or operator's average annual gross income form all sources, in order to qualify as a bona-fide operation.

Farm Operation: Any activity conducted solely or primarily for the production of one or more agricultural products or commodities, including timber, for sale and home use, and customarily producing such products or commodities in sufficient quantity to be capable of contributing materially to the operator's support.

Nonprofit Organization: A public or private entity that has established its nonprofit status under applicable law.

MOVING EXPENSES

If you qualify as a displaced business, farm or nonprofit organization, you are entitled to reimbursement of your moving costs and certain related expenses incurred in moving. To qualify you must legally occupy the property as the owner or lessee/tenant when Caltrans initiates negotiations for the acquisition of the property **OR** at the time Caltrans acquires title or takes possession of the property. However, to assure your eligibility and prompt payment of moving expenses, you should contact your Relocation Agent before you move.

You Can Choose Either:

Actual Reasonable Moving Costs – You may be paid for your actual reasonable moving costs and related expenses when a commercial mover performs the move. Reimbursement will be limited to a move of 50 miles or less. Related expenses, with limitations, ***may*** include:

- Transportation.
- Packing and unpacking of personal property.
- Disconnecting and reconnecting personal property related to the operation.
- Temporary storage of personal property.
- Insurance while property is in storage or transit, or the loss and damage of personal property if insurance is not reasonably available.
- Expenses in finding a replacement location.
- Professional services to plan and monitor the move of the personal property to the new location.
- Licenses, permits and fees required at the replacement location.

OR

Self-Move Agreement – You may be paid to move your own personal property based on the lower of two acceptable bids obtained by Caltrans.

Under this option, you will still be eligible for reimbursement of related expenses listed above that were not included in the bids.

OR

In-Lieu Payment – You can accept a fixed payment between $1,000 and $20,000, based on your annual earnings IN LIEU OF the moving cost, related expenses and reestablishment cost.

Actual Reasonable Moving Costs

You may be paid the actual reasonable and necessary costs of your move when a professional mover performs the move. All of your moving costs must be supported by paid receipts or other evidence of expenses incurred. In addition to the transportation costs of your personal property, certain other expenses may also be reimbursable, such as packing, crating, unpacking and uncrating, and the disconnecting, dismantling, removing, reassembling, and reinstalling relocated machinery, equipment, and other personal property.

Other expenses such as professional services necessary for planning and carrying out the move, temporary storage costs, and the cost of licenses, permits and certifications may also be reimbursable. This is not intended to be an all-inclusive list of moving related expenses. Your Relocation Agent can provide you with a complete explanation of reimbursable expenses.

Self-Move Agreement

If you agree to take full responsibility for all or part of the move of your business, farm, or nonprofit organization, the Department may approve a payment not to exceed the lower of two acceptable bids obtained by the Department from qualified moving firms or a qualified Department staff employee. A low-cost or uncomplicated move may be based on a single bid or estimate at the Department's discretion. The advantage of this moving option is the fact that it relieves the displaced business, farm or nonprofit organization operator from documenting all moving expenses. The Department may make the payment without additional documentation as long as the payment is limited to the amount of the lowest acceptable bid or estimate. Other expenses, such as professional services for planning, storage costs, and the cost of licenses, permits, and certifications may also be reimbursable if determined to be necessary. These latter expenses must be pre approved by the Relocation Agent.

Requirements:

Before you move, you must provide Caltrans with the:

- Certified inventory of all personal property to be moved.
- Date you intend to vacate the property.
- Address of the replacement property.
- Opportunity to monitor and inspect the move from the acquired property to the replacement property.

Related Expenses

1. **Searching Expenses for Replacement Property:** Displaced businesses, farms and nonprofit organizations are entitled to reimbursement for actual reasonable expenses incurred in searching for a replacement property, not to exceed $2,500. Expenses may include transportation, meals, and lodging when away from home; the reasonable value of the time spent during the search; fees paid to the real estate agents, brokers or consultants; and other expenses determined to be reasonable and necessary by the Department.

2. **Direct Loss of Tangible Personal Property:** Displaced businesses, farms, and nonprofit organizations may be eligible for a payment for the actual direct loss of tangible personal property which is incurred as a result of the move or discontinuance of the operation. This payment will be based upon the lesser of:

    a. The fair market value of the item for continued use at the displacement site minus the proceeds from its sale.

    OR

    b. The estimated cost of moving and reinstalling the replaced item, based on the lowest acceptable bid or estimate obtained by the Department for eligible moving and related expense4s, including dismantling and reassembly, but with no allowance for storage, cost of code requirement betterments or upgrades at the replacement site.

EXAMPLE:
You determine that the "document shredder" cannot be moved to the new location because of its condition, and you will not replace it at the new location.

Fair Market Value of the Document Shredder Based on its use at the current location	$ 1,500
Proceeds: Price received from selling the Document Shredder	- $ 500
Net Value	$ 1,000

OR

Estimated cost to move	$ 1,050

Based on the "lesser of", the amount of the "Loss of Tangible Personal Property" =	**$ 1,000**

Note: You are also entitled to all reasonable costs incurred in attempting to sell the document shredder (e.g. advertisement).

3. Purchase of Substitute Personal Property: If an item of personal property, which is used as part of the business, farm, or nonprofit organization, is not moved but is promptly replaced with a substitute item that performs a comparable function at the replacement site, the displacee is entitled to payment of the lesser of:

    a. The cost of the substitute item, including installation costs at the replacement site, minus any proceeds from the sale or trade-in of the replaced item;

    OR

    b. The estimated cost of moving and reinstalling the replaced item, based on the lowest acceptable bid or estimate obtained by the Department for eligible moving and related expenses, including dismantling and reassembly, but with no allowance for storage, cost of code requirement betterments or upgrades at the replacement site.

EXAMPLE A:

You determine that the copying machine cannot be moved to the new location because it is now obsolete and you will replace it.

Cost of a substitute copy machine		
Including installation costs at the replacement site		$ 3,000
Trade-in Allowance	-	$ 2,500
Net Value		$ 500

OR

Estimated cost to move	$ 550

Based on the "lesser of", the amount of the "Substitute Personal Property" =	**$ 500**

EXAMPLE B:

You determine that the chairs will not be used at the new location because they no longer match the décor and you will replace them.

Cost of substitute chairs		$ 1,000
Proceeds from selling the chairs	-	$ 100
Net Value		$ 900

OR

Estimated cost to move	$ 200

Based on the "lesser of", the amount of the "Substitute Personal Property" =	**$ 200**

Note: You are also entitled to all reasonable costs incurred in attempting to sell the copy machine and/or chairs.

4. **Disconnecting and Reinstallation:** You will be reimbursed for your actual and reasonable costs to disconnect, dismantle, remove, reassemble and reinstall any machinery, equipment or other personal property in relation to its move to the new location. This includes connection to utilities available nearby and any modifications to the

personalty that is necessary to adapt it to utilities at the replacement site.

5. **Physical changes at the new location:** You may be reimbursed for certain physical changes to the replacement property if the changes are necessary to permit the reinstallation of machinery or equipment necessary for the continue operation of the business. ***Note:*** *The changes cannot increase the value of the building for general purposes, nor can they increase the mechanical capability of the buildings beyond its normal requirements.*

6. The cost of installing utilities from the right of way line to the structure(s) or improvements on the replacement site.

7. Marketing studies, feasibility surveys and soil testing.

8. Professional real estate services needed for the purchase or lease of a replacement site.

9. One-time assessments or impact fees for anticipated heavy utility usage.

Reestablishment Expenses

A small business, farm or nonprofit organization may be eligible for a payment, not to exceed $10,000, for expenses actually incurred in relocating and reestablishing the enterprise at a replacement site.

Reestablishment expenses may include, but are not limited to, the following:

1. Repairs or improvements to the replacement real property required by Federal, State or local laws, codes or ordinances.

2. Modifications to the replacement real property to make the structure(s) suitable for the business operation.

3. Construction and installation of exterior signing to advertise the business.

4. Redecoration or replacement such as painting, wallpapering, paneling or carpeting when required by the condition of the replacement site or for aesthetic purposes.

5. Advertising the new business location.

6. The estimated increased costs of operation at the replacement site during the first two years, for items such as:

    a) Lease or rental charges
    b) Personal or real property taxes
    c) Insurance premiums, and
    d) Utility charges (excluding impact fees).

7. Other items that the Department considers essential for the reestablishment of the business or farm.

Note: *A nonprofit organization must substantiate that it cannot be relocated without a substantial loss of existing patronage (membership or clientele). The payment is based on the average of two years annual gross revenues less administrative expenses.*

In-Lieu Payment (Fixed)

Displaced businesses, farms and nonprofit organizations may be eligible for a fixed payment in lieu of (in place of) actual moving expenses, personal property losses, searching expense, and reestablishment expenses. The fixed payment may not be less than $1,000 or more than $20,000.

For a business to be eligible for a fixed payment, the Department must determine the following:

1. The business owns or rents personal property that must be moved due to the displacement.

2. The business cannot be relocated without a substantial loss of existing patronage.

3. The business is not part of a commercial enterprise having more than three other businesses engaged in the same or similar activity, which are under the same ownership and are not being displaced by the department.

4. The business contributed materially to the income of the displaced business operator during the two taxable years prior to displacement.

Any business operation that is engaged solely in the rental of space to others is not eligible for a fixed payment. This includes the rental of space for residential or business purposes.

Eligibility requirements for farms and nonprofit organizations are slightly different than business requirements. If you are being displaced from a farm or your represent a nonprofit organization and are interested in a fixed payment, please consult your relocation counselor for additional information.

The Computation of Your In-Lieu Payment:

The fixed payment for a displaced business or farm is based upon the average annual net earnings of the operation for the two taxable years immediately preceding the taxable year in which it is displaced. Caltrans can use a different two year period if it is determined that the last two taxable years do not accurately reflect the earnings of the operation.

EXAMPLE: Caltrans acquires your property and you move in 2005:

2003 Annual Net Earnings	$ 10,500
2004 Annual Net Earnings	$ 12,500
TOTAL	$ 23,000
Average over two years	**$ 11,500**

This would be the amount of your in-lieu payment. Remember – this is in-lieu of all other moving benefits, including reestablishment expenses. You must provide the Department with proof of net earnings to support your claim.

Proof of net earnings can be documented by income tax returns, certified financial statements, or other reasonable evidence of net earnings acceptable to the Department.

Note: The computation for nonprofit organizations differs in that the payment is computed on the basis of average annual gross revenues less administrative expenses for the two year period specified above.

Before You Move:

A. Request a determination of entitlement for in-lieu payment from your Relocation Agent.
B. Include a written statement of the reasons the business cannot be relocated without a substantial loss in net earnings.

C. Provide certified copies of tax returns for the two tax years immediately preceding the tax year in which you move. (If you move anytime in the year 2005, regardless of when negotiations began or the State took title to the property, the taxable years would be 2003 and 2004).
D. You will be notified of the amount you are entitled to after the application is received and approved.
E. You cannot receive the payment until after you vacate the property, AND submit a claim for the payment within 18 months of the date of your move.

Relocation Advisory Assistance

Any business, farm or nonprofit organization displaced by Caltrans shall be offered relocation advisory assistance for the purpose of locating a replacement property. Relocation services are provided by qualified personnel employed by Caltrans. It is their goal and desire to be of service to you and assist in any way possible to help you successfully relocate.

A Relocation Agent from Caltrans will contact you personally. Relocation services and payments will be explained to you in accordance with your eligibility. During the initial interview with you, your needs and desires will be determined as well as your need for assistance.

You can expect to receive the following services, advice and assistance from your Relocation Agent who will:

- Determine your needs and preferences.
- Explain the relocation benefits and eligibility requirements.
- Provide information on replacement properties for your consideration.
- Provide information on counseling you can obtain to help minimize hardships in adjusting to your new location.
- Assist you in completing loan documents, rental applications or Relocation Claims Forms.

AND provide information on:

- Security deposits
- Interest rates and terms
- Typical down payments
- Permits, fees and local planning
- SBA loan requirements
- Real property taxes.
- Consumer education literature

If you desire, your Relocation Agent will give you current listings of other available replacement property. Transportation will be provided to inspect available property, especially if you are elderly or handicapped. Though you may use the services of a real estate broker, Caltrans cannot provide a referral.

Your Relocation Agent is familiar with the services provided by others in your community and will provide information on other federal, state, and local programs offering assistance to displaced persons. If you have special needs, your Relocation Agent will make every effort to secure the services of those agencies with trained personnel who have the expertise to help you.

If the highway project will require a considerable number of people to be relocated, Caltrans will establish a temporary Relocation Field Office on or near the project. Project relocation offices will be open during convenient hours and evening hours if necessary.

In addition to these services, Caltrans is required to coordinate its relocation activities with other agencies causing displacements to ensure that all persons displaced receive fair and consistent relocation benefits.

Remember - YOUR RELOCATION AGENT is there to offer advice and assistance. Do not hesitate to ask questions. And be sure you fully understand all of your rights and available benefits.

YOUR RIGHTS AS A DISPLACEE

It is important to remember that your relocation benefits will not have an adverse affect on your:

- Social Security Eligibility
- Welfare Eligibility
- Income Taxes

In addition, the Title VIII of the Civil Rights Act of 1968 and later acts and amendments make discriminatory practices in the purchase and rental of most residential units illegal if based on race, color, religion, sex, or national origin.

Caltrans' Non-Discrimination Policy ensures that all services and/or benefits will be administered to the general public without regard to race, color, national origin, or sex in compliance with Title VI of the 1964 Civil Rights Act (42 USC 2000d. et seq.).

And you always have the Right to Appeal any decision by Caltrans regarding your relocation benefits and eligibility.

Your Right of Appeal is guaranteed in the "Uniform Act" which states that any person may file an appeal with the head of the responsible agency if that

person believes that the agency has failed to properly determine the person's eligibility or the amount of a payment authorized by the Act.

If you indicate your dissatisfaction, either verbally or in writing, Caltrans will assist you in filing an appeal and explain the procedures to be followed. You will be given a prompt and full opportunity to be heard. You have the right to be represented by legal counsel or other representative in connection with the appeal (but solely at your own expense).

Caltrans will consider all pertinent justifications and materials submitted by you and other available information needed to ensure a fair review. Caltrans will provide you with a written determination resulting from the appeal with an explanation of the basis for the decision. If you are still dissatisfied with the relief granted, Caltrans will advise you that you may seek judicial review.

Sus Derechos y Beneficios Como Negocio, Operación Agrícola o Organización No Lucrativa Desplazada Bajo el Departmento de Transportación de California, Programa para Asistencia de Reubicación

Introducción

Cuando se está construyendo un sistema de transporte moderno, el desplazamiento de un pequeño porcentaje de la población es a veces necesario. Sin embargo, es el procedimiento de Caltrans que las personas desplazadas no deben de sufrir innecesariamente como resultado de los programas diseñados para el benificio del público en general.

Los negocios, operaciones agrícolas, y organizaciones no-lucrativas desplazadas pueden ser elegibles para servicios de reubicación y pagos.

Este libreto le provee información acerca de los servicios y pagos de reubicación disponibles. Si usted tiene que mudarse como resultado de un proyecto de transportación de Caltrans, un Agente de Reubicación lo contactará. El Agente de Reubicación estará disponible para responderle preguntas específicas y darle información adicional.

Acta de Procedimiento Uniforme de Asistencia para Reubicación y Adquisición de Bienes Raíces de 1970, Emendada
"El Acta Uniforme"

El propósito de esta Acta es de proveer uniformidad e igualdad de tratamiento a personas desplazadas de sus negocios, operaciones agrícolas, u organización no-lucrativa, por programas federales o programas asistidos con fondos federales, y de establecer uniformidad e igualdad en los procedimientos para adquisición de tierras para los programas federales y programas asistidos con fondos federales.

El Código de Regulaciones Federales 49, Parte 24 implementa el "Acta Uniforme" de acuerdo a los siguientes objetivos de asistencia de relocalización:

> Para asegurar que las personas desplazadas como resultado directo de proyectos federales o proyectos asistidos con fondos federales sean tratados con justicia, consistencia e igualdad de tal manera que esas personas no sufran daños desproporcionados como resultado de los proyectos diseñados para el beneficio del público en general.

Mientras se ha hecho todo esfuerzo para asegurar la veracidad de este folleto, debe entenderse que no tiene la fuerza ni efecto de la ley, regla o regulaciones que gobiernan el pago de los beneficios. Si alguna diferencia o error resulta, la ley tomará precedencia.

Servicios de Reubicación

El Departamento Transportación tiene dos programas para de ayudar a negocios, granjas y organizaciones no-lucrativas que tienen que reubicarse. Estas son:

1. El Programa de Consejos de Asistencia de Reubicación, que es para ayudarle en localizar una propiedad de reemplazo conveniente, y

2. El Programa de Pagos para Reubicación, que le reembolsará de ciertos costos envueltos en la reubicación. Estos pagos están clasificados como:

    - Gastos Relacionados a Mudanza (costos de mover propiedad personal no adquirida).
    - Gastos de Reestablecimiento (gastos relacionados a la propiedad de reemplazo.)
    - Pagos Fijos (pago fijo en vez de los gastos de mudanzas y otros gastos relacionados, y gastos de reestablecimiento).

Nota: *Pagos por pérdida de clientela es considerado un costo de adquisición. La ley de California y las regulaciones federales mandan que los pagos de reubicación no pueden duplicar otros pagos, como los pagos de pérdida de clientela.*

Usted **no** puede ser elegible a recibir ningún pago de reubicación hasta que el Estado haya hecho la primera oferta escrita para comprar su propiedad. Usted tambien recibirá un aviso escrito por lo menos 90 días antes que se tenga que mover.

Algunas Definiciones Importantes…

Sus beneficios de relocalización pueden ser entendidos mejor si usted se familiariza con los siguientes términos:

Negocio: Cualquier actividad legal, con la excepción de operaciones agrícolas, conducida principalmente para la compra, venta, arrendamiento, y alquiler de bienes personales o bienes raices, o para la fabricación, elaboración y/o mercadotecnia de productos, mercancías, u otros bienes personales, o solamente para el propósito de ésta Acta, un rótulo con anuncio o anuncios, cuando el rótulo(s) tenga(n) que ser movido(s) como resultado del proyecto.

Negocios Pequeños: Un negocio que tenga no más de 500 empleados trabajando en el lugar que esta siendo adquirido o desplazado por un programa o proyecto.

Contribuye Materialmente: Un negocio u operación agrícola debe de haber tenido un ingreso bruto en recibos de al menos $5,000 o un promedio anual de ingreso netos de al menos $1,000, para poder calificar como una operación de buena fé.

Operación Agrícola: Cualquier actividad conducida sola o primarialemente para la producción de uno o más productos de agricultura o mercancías, incluyendo venta de madera, para la venta y uso en casa, y producción ordinaria de tales productos o mercancía en cantidades suficientes para tener la capacidad de contribuir materialmente al soporte del operario.

Organización No-lucrativa: Una entidad pública o privada que haya establecido su estado de organización no-lucrativa bajo las leyes aplicables.

Persona desplazada: Cualquier individuo o familia que se muda de una propiedad o mueva sus bienes personales de una propiedad como resultado de la acquisición de bienes raíces, en todo o en parte, o como resultado de una notificación escrita de una agencia para desocupar la propiedad que se necesita para un proyecto de transportación. En el caso de una adquisición parcial, Caltrans determinará si la persona es desplazada directamente como resultado de la adquisición.

Los residentes que no están legalmente en los Estados Unidos no son elegibles para recibir pagos y asistencia de reubicación.

Los beneficios de reubicación varían según el tipo y tiempo de ocupación. Como una persona desplazada de un unidad residencial usted puede ser clasificado como:

- Un dueño ocupante de una propiedad residencial (incluye casas movibles)
- Un inquilino ocupante de una propiedad Residencial (incluye casas movibles y cuartos para dormir)

GASTOS DE MUDANZA

Si usted califica como un negocio, operación agrícola, u organización no-lucrativa desplazada, usted puede recibir reembolso de los gastos de mudanza y ciertos gastos relacionados incurridos en la mudanza. Para calificar, usted tiene que ocupar la propiedad legalmente como dueño o inquilino cuando Caltrans inicie negociaciones para la adquisición de la propiedad, O al tiempo que Caltrans adquiera título, o tome posesión de la propiedad. Sin embargo, para asegurar su elegibilidad y el pronto pago de los gastos de mudanza, usted tiene que haber contactado a su Agente de Reubicación antes de que se mude.

Usted Puede Escoger Entre:

Gastos Razonables de Mudanza Actual – Usted tiene que haber pagado por sus gastos de mudanza razonables y gastos relacionados cuando una compañia comercial hace la mudanza.

El reembolso será limitado a mudanza de 50 millas o menos. Los gastos relacionados, con limitaciones, ***pueden*** incluir:

- Transportación.
- Empacamiento y desempacamiento de la propiedad personal.
- Desconnección y reconneción relacionada a la operación de la propiedad personal.
- Almacenamiento temporal de la propiedad personal.

Seguros mientras la propiedad está en almacenamiento o en tránsito, o la propiedad personal es perdida y dañada, si los seguros no son razonablemente disponible.

- Gastos en encontrar un lugar de reemplazamiento.
- Servicios profesionales para planificar y supervisar la mudanza de la propiedad personal al nuevo lugar.
- Licencias, permisos y honorarios requiridos en el lugar de reemplazamiento.

Ó

Contrato de Mudanza Propia – Usted puede ser pagado por mover su propia propiedad personal basado en la más baja de dos ofertas aceptables obtenidas por Caltrans. Bajo esta opción, usted deberá todavía ser elegible para el reembolsamiento de los gastos arriba relacionados que no fueron incluídos en la oferta

Ó

Pago Fijo – Usted puede aceptar un pago fijo entre $1,000 y $20,000 basado en sus ganancias anuales EN VEZ de los costos y gastos relacionados de la mudanza.

Costos Actuales Razonables de Mudanza:

Pueden pagársele los gastos actuales razonables y necesarios de su mudanza si lo transporta con una compañía comercial de muebles y mudanzas. Todos sus gastos deben de ser respaldados con recibos u otra evidencia de gastos incurridos. Además de los gastos de transportación de su propiedad personal, ciertos otros gastos también pueden ser reembolsados, tales como empaque, embalaje, desempaque y desembalaje, desconexión, desmantelación, removimiento, reensamblamiento, y reinstalación de maquinaria relocalizada, equipos y otras propiedades personales. Otros gastos necesarios tales como servicios profesionales para planificar y supervisar la mudanza, almacenaje temporal y el costo para licencias, permisos y certificados también pueden ser reembolsables. Esta no es la intención de ser una lista inclusiva de todos los gastos relacionados de mudanza. Su Agente de Reubicación puede proveerle una explicación completa de los gastos reembolsables.

Contrato de Mudanza Propia

Si usted elige tomar la responsabilidad total o parcial para la mudanza de su negocio, operación agrícola, u organización no-lucrativa, Caltrans puede aprobar un pago sin exceder el presupuesto mas bajo de dos ofertas aceptables de una compañía comercial de muebles y mudanzas o por el Agente de Reubicación. Una mudanza a costo bajo o sin complicaciones puede ser basada en una sola oferta o estimado. En realidad, la ventaja de esta opción es que releva de la obligación al operador del negocio, operación agrícola u organización no-lucrativa desplazadas de documentar todos los gastos de mudanza. Caltrans puede hacer el pago sin documentación adicional siempre y cuando el pago sea limitado a la cantidad más baja aceptable de la oferta o del estimado. Otros gastos tales como servicios profesionales para planificar, costos de almacenaje y el costo de licencias, permisos, y certificados también pueden ser reembolsables si son necesarios. Estos gastos tienen que ser aprobados de ante mano por el Agente de Reubicación.

Requisitos:

Antes de que se mueva, usted tiene que proveer a Caltrans con:

- El inventario certificado de toda la propiedad personal que va a mover.
- La fecha que usted intenta desalojar la propiedad.
- La dirección de la propiedad de reemplazamiento.
- La oportunidad de supervisar e inspeccionar la mudanza desde la propiedad adquirada a la propiedad de reemplazo.

Gastos Relacionados

(1) **Gastos Para la Búsqueda de una Propiedad de Reemplazo** – Negocios, operaciones agrícolas, y organizaciones no-lucrativas tienen derecho a un reembolso por gastos actuales razonables, incurridos en la búsqueda de una propiedad de reemplazo, sin exceder $1,000. Los gastos pueden incluir transportación, alimento y alojamiento cuando esté lejos de su casa; el valor razonable del tiempo que ha gastado buscando una propiedad de reemplazo; los honorarios pagados a agentes de bienes raíces o asesores; y otros gastos determinados por Caltrans como razonables y necesarios.

(2) **Pérdidas Directas de Bienes Personales Tangibles:** Los negocios, operaciones agrícolas, y organizaciones no-lucrativas desplazadas pueden ser elegibles para un pago por pérdidas directas de bienes personales tangibles incurrido como resultado de la mudanza o descontinuación de la operación. Este pago deberá ser basado en el menor de:

(a) El valor de mercado de un producto para uso continuo en el sitio de desplazamiento menos la ganancia por su venta.

O

(b) El costo estimado de mudanza y reinstalación de los objetos reemplazados es basado en la oferta mas baja o el estimado obtenido por Caltrans para mudanza elegible y costos relacionados, incluyendo desmantelamiento y reemsamblaje, pero sin pago por almacenamiento.

POR EJEMPLO:

Usted determina que el “cortador de documentos” no puede ser movido a la nueva localidad por su condición, y usted no lo va a reemplazar en la nueva localidad.

El Valor de Mercado del Cortador de Documentos basado en su uso actual en la localidad actual es de	$1,500
Ganancia: Precio recibido por la venta del Cortador de Documentos	– $ 500
Valor Neto	$1,000
Ó	
El costo estimado de moverlo	$ 1,050
Basado en el “menor de”, la cantidad de la “Perdida de Propiedad Personal Tangible”	= **$ 1,000**

Nota: *Usted tambien tiene derecho a todos los costos rasonables incurrido en su esfuerzo por vender el cortador de documentos (por ejemplo, anuncio commercial)*

(3) Compra de Substitución de la Propiedad Personal: Si un objeto de propiedad personal, el cual es usado como parte del negocio, la operación agrícola, o la organización no-lucrativa, no es movido pero es prontamente reemplazado con un objeto substituto que hace una función comparable en el sitio de reemplazo, el desplazado tiene derecho al menor de:

(a) El costo de un objeto substituto, incluyendo los costos de instalación en el sitio de reemplamiento, menos cualquier ganacia por la venta o intercambio del objeto reemplazado.

O

(b) El costo estimado de mudanza y reinstalación del objeto de reemplazo, basado en la oferta mas baja aceptable o el estimado obtenido por Caltrans para una mudanza elegible y gastos relacionados, incluyendo el desmantelamiento y reensamblaje, pero sin pago por almacenamiento

EJEMPLO A:

Usted puede determinar que la máquina copiadora no puede ser movida a la nueva localidad porque es ahora obsoleta y la va a reemplazar.

Costo de substuitir una Máquina Copiadora incluyendo costos de instalación en el sitio de reemplazamiento.	$ 3,000
Pago por el Intercambio	– $ 2,500
Valor Neto	$ 500
O	
Costo estimado de la mudanza	$ 550
Basado en el “menor de” la cantidad de “La Propiedad Personal Substituida”	**$ 500**

EJEMPLO B:

Usted determina que las sillas no van a ser usadas en la nueva localidad, porque ya no combinan con la decoración, y usted las quiere reemplazar.

Costo de la sillas substitutas	$ 1,000
Ganancias: Por la venta de las Sillas	– $ 100
Valor Neto	$ 900
O	
Costo estimado de la mudanza	$ 200
Basado en el “menor de”, la cantidad de “La Propiedad Personal de Substitución”	**$ 200**

NOTA: *Usted tambien tiene derecho a todos los gastos razonables incurridos en su esfuerzo por vender la copiadora (Ejemplo A) o las sillas (Ejemplo B).*

(4) **Desconección y Reinstalación:** Usted va a ser reembolsado por los costos actuales y razonables de desconección, desmantelamiento, mudanza, reemsamblaje, e reinstalación de cualquier maquinaria, equipo u otra propiedad personal en relación a la mudanza a su nuevo local. Esto incluye conección a los servicios públicos disponibles en el lugar y a cualquier modificación de los objectos personales que sean necesario para adaptar a los servicios públicos en el sitio de reemplazamiento.

(5) **Cambios Físicos en el nuevo local:** Usted puede ser reembolsado por ciertos cambios físicos de la propiedad de reemplazamiento si los cambios son necesarios para permitir la reinstalación de la maquinaria o equipo necesario para la continua operación del negocio.

Nota: *Los cambios no pueden incrementar el valor del edificio para propósitos generales, tampoco pueden incrementar la capacidad mecánica de los edificios más alla de los requerimientos normales.*

Gastos De Reestablecimiento

Un pequeño negocio, operación agrícola, u organización no-lucrativa puede ser elegible para un pago, que no exceda $10,000, para los gastos actuales incurridos en la reubicación y el reestablecimiento en el sitio de reemplazo.

Gastos de reestablecimiento pueden incluir, pero no están limitados a, lo siguiente:

1. Reparación y mejoramiento de la propiedad de reemplazamiento requerido por las leyes, códigos, u ordenanzas federales, estatales o locales.

2. Modificaciones de la propiedad de reemplazamiento para hacer la estructura(s) apropiado para la operación del negocio.

3. Construcción e instalación de los letreros exteriores para anunciar el negocio.

4. El costo de instalación de servicios públicos desde la línea del derecho de vía a la estructura(s) o mejoramientos en el sitio de reemplazamiento.

5. Redecoración o reemplazamiento como pintura, tapizado de pared, paneles, o carpetas cuando sean requeridas por la condición del sitio de reemplazo o con propósitos estéticos.

6. El costo de licencias, honorarios, y permisos cuando no sean cubiertos como gastos de mudanza.

7. Estudios de mercado, estudios de factibilidad y exámen de suelo.

8. Anunciar la localidad del nuevo negocio.

9. Servicios profesionales de bienes raíces necesarios para la compra o la renta de un lugar de reemplazo.

10. El aumento del costo estimado de operación en el lugar de reemplazo durante los primeros dos años, por objectos como:

    a. Cargas de rentas,
    b. Impuestos de propiedad personal o propiedad real
    c. Prima de seguros, y
    d. Carga de servicios públicos (excluyendo honorarios de impacto).

11. Evaluación de una-vez o honorarios de impacto por alta utilización de servicios públicos.

12. Otros objetos que el Departmento considere esenciales para el reestablecimiento del negocio ú operación agrícola.

Pago De Una Vez (O Pago Fijo)

Negocios que han sido desplazados, operaciones agrícolas, y organizaciones no-lucrativas podrían ser elegibles para un pago fijo (en vez de) por los gastos actuales de mudanza, pérdida de propiedad personal, gastos de búsqueda, y gastos de reestablecimiento. Los pagos fijos no podrán ser menos de $1,000 o más de $20,000.

Para que un negocio sea elegible por un pago fijo, Caltrans debe de determinar lo siguiente:

1. El negocio posee o renta propiedad personal que debe de ser movida debido al desplazamiento.

2. El negocio no puede ser relocalizado sin una pérdida substancial de la clientela existente.

3. El negocio no es parte de un empresa comercial que tiene mas de tres otros negocios conectados en una misma o actividad similar, las cuales están bajo el mismo dueño y no están siendo desplazadas por el Departamento.

4. El negocio contribuyó materialmente a las ganancias del operador del negocio desplazado durante los dos años anteriores al desplazamiento.

Cualquier operación del negocio que está conectado solamente en la renta del espacio de otros, no es elegible para un pago fijo. Esto incluye la renta de espacio con propósitos residenciales o de negocios.

Los requerimientos de elegibilidad para las operaciones agrícolas y organizaciones no-lucrativas son un poco diferentes a los requerimientos para negocios. Si usted está siendo desplazado de una granja o usted representa una organización no-lucrativa y está interesado en un pago fijo, por favor consulte con su consejero de reubicación para información adicional.

La computación de Su Pago Fijo

El pago fijo para un negocio desplazado o una operación agrícola es basado en el promedio anual neto de ganancias de la operación por los dos años immediatamente precedentes al año en el cual fue desplazado. Caltrans puede usar un período de dos años diferentes, si se determina que los dos últimos años no reflejan con certeza las ganacias de la operación.

EJEMPLO: Caltrans adquiere su propiedad y usted se mueve en el 2001:

1999 Ganancias Netas Anuales	$10,500
2000 Ganancias Netas Anuales	$12,500
TOTAL	$23,000
Promedio de los dos años	$11,500

Este podría ser la cantidad de su pago fijo. Recuerde – esto es “en vez de” todos los otros beneficios de mudanza. Usted tendrá que proveer Caltrans pruebas de las ganacias netas para verificar su reclamo.

Prueba de las ganancias netas pueden ser documentas con sus declaraciones de impuestos, cartas financieras certificadas, u otra evidencia razonable de las ganancias netas aceptables por Caltrans.

Nota: *La computación de las organizaciones no-lucrativas difiere en que los pagos son computados en la base del promedio anual grueso de las ganancias menos los gastos administrativos por el período de los dos años especificados arriba.*

Antes de que se Mueva:

A. Complete una forma de “Aplicación para Determinación de sus Derechos” que la puede obtener de su Agente de Reubicación, y devuélvala con la mayor prontitud posible.

B. Incluya una declaración escrita de las razones por las cuales su negocio no puede ser reubicado sin una pérdida substancial en la ganancias netas.

C. Provea una copia certificada de su declaración de impuestos de los dos años immediatamente precedentes al año en el que se va a mover. (Si usted se mueve en cualquier momento en el año 2001, sin importar de cuando comenzaron las negociaciones o cuando el Estado tomó título de su propiedad, los años serán el de 1999 y el 2000.

D. Usted deberá ser notificado de la cantidad a la que tiene derecho después que la aplicación es recibida y aprobada.

E. Usted no puede recibir un pago hasta que se haya movido de la propiedad, Y que haya entregado un reclamo de pago dentro de los 18 meses de la fecha de mudanza.

Asistencia de Asesoría de Reubicación

A cualquier negocio, operación agrícola, u organización no-lucrativa, desplazado por Caltrans debe de ofrecerle los servicios de asistencia de reubicación con el propósito de localizar una propiedad de reemplazamiento. Los servicios de reubicación deben de ser proveídos por un empleado de Caltrans. Es la meta y el deseo de nosotros de servirle y asistirle en cualquier manera posible para ayudarle a reubicarse exitosamente.

Un Agente de Reubicación de Caltrans se comunicará con usted personalmente. Los servicios de reubicación y los pagos deberán ser explicados a usted de acuerdo con su elegibilidad. Durante la entrevista inicial con usted, sus necesidades y deseos deberán determinarse así como su necesidad de asistencia.

Usted puede esperar recibir los siguientes servicios, consejos, y asistencia de su Agente de Reubicación quien le:

- Determinará sus necesidades y preferencias.
- Explicará los beneficios de reubicación y su elegibilidad.
- Proveerá información en las propiedades de reemplazo para su consideración.
- Proveerá información en aconsejarle como puede obtener ayuda para minimizar la adversidad en ajustarse a su nuevo local.
- Asistirá en completar los documentos de préstamos, aplicaciones de rentas o Formas de Reclamos de Reubicación.

Y puede proveerle información en:

- Depósitos de seguridad.
- Taza de intereses y términos.
- Pagos típicos de enganches.
- Permisos, honorarios, y ordenanzas locales.
- Requirimientos de préstamos SBA
- Impuestos de bienes raíces.
- Literatura de educación al consumidor.

Si usted desea, su Agente de Reubicación le dará una lista actual de otras propiedades de reemplazamiento que esten disponibles. Se le proveerá transportación para inspeccionar la propiedad disponible, especialmente si usted es anciano o desabilitado. Aunque usted puede usar los servicios de un vendedor de bienes raíces, Caltrans no lo puede referir a un agente específico.

Su Agente de Reubicación está familiarizado con los servicios proveído por otros en su comunidad y le proveerá información de otros programas federales, estatales y locales que ofrecen asistencia a las personas desplazadas. Si usted tiene necesidades especiales, su Agente de Reubicación hará un esfuerzo para asegurar los servicios del personal entrenado de estas agencias que tienen la experiencia para ayudarle.

Si el proyecto de carreteras requiere que un número considerable de personas sean reubicadas, Caltrans establecerá Oficinas temporales de Reubicación en o cerca del proyecto. Las oficinas de projectos de reubicación serán abiertas durante las horas convenientes y hasta horas de la noche si es necesario.

Además de estos servicios, Caltrans será requerido a coordinar las actividades de reubicación con otras agencias causantes de desplazamiento para asegurar que todas las personas desplazadas reciban beneficios de reubicación iguales y consistentes.

Recuerde – Su Agente de Reubicación está ahí para ofrecer consejos y asistencia. No tenga dudas en preguntar. Y esté seguro que usted entiende completamente todos los derechos y beneficios disponibles.

SUS DERECHOS COMO UNA PERSONA DESPLAZADA

Es importante que recuerde que los beneficios de reubicación no tendrán un efecto adverson en su:

- Elegibilidad para Seguro Social
- Elegibilidad para Asistencia Social
- Declaración de Impuestos.

Además, el **Título VIII del Acta de Derechos Civiles de 1968**, y las actas anteriores y sus enmiendas hacen ilegal las prácticas en la venta y renta de las unidades residenciales que estén basadas en la raza, color, religion, sexo, u origen nacional.

Los Procedimientos No-Descriminatorios de Caltrans aseguran que todos los servicios y/o beneficios sean administrados al público en general sin diferencia de raza, color, origen nacional, o sexo en cumplimiento con el Título VI del Acta de Derechos Civiles de 1964. (42 USC 2000 (d.) et seq.).

Y usted siempre tiene el **Derecho de Apelar** una decisión de Caltrans en relación a sus beneficios de reubicación y elegibilidad.

Su Derecho de Apelación es garantizado en la “Ley Uniforme” que establece que una persona puede apelar con el responsible de la agencia si esta persona cree que la agencia ha fallado en determinar apropiadamente la elegibilidad de la persona o la cantidad de un pago autorizado por la Ley.

Si usted indica su disatisfacción, ya sea verbalmente o por escrito, Caltrans puede asistirle en entregar su caso y explicar los procedimientos a seguir. A usted le darán la oportunidad de ser oído pronta y totalmente. Usted tiene el derecho de ser representado por un consejero legal u otro representante en conección con la apelación (pero solamente a su propio costo.)

Caltrans puede considerar todas las justificaciones pertinentes y materiales entregadas por usted y cualquier otra información disponible que sea necesaria para asegurar una revisión justa. Caltrans le proveerá con una determinación de la apelación por escrito con una explicación de la base de la decisión. Si usted todavía no está satisfecho con la asistencia prestada, Caltrans le aconsejará que usted puede buscar una revisión judicial.

Noticiero de la Ley para Americanos con Incapacidades Físicas (ADA):

Para personas con incapacidades físicas, este documento es disponible en formatos alternativos. Para Información llame al número (916) 654-5413 Voz, CRS: 1-800-735-2929, o escriba a Derecho de Vía, MS 37, 1120 N Street, Sacramento, CA 95814.

ADDITIONAL INFORMATION

No relocation payment received will be considered as income for the purpose of the Internal Revenue Code of 1954 or for the purposes of determining eligibility or the extent of eligibility of any person for assistance under the Social Security Act or any other federal law (except for any federal law providing low-income housing assistance).

Persons who are eligible for relocation payments and who are legally occupying the property required for the project will not be asked to move without being given at least 90 days advance notice, in writing. Occupants of any type of dwelling eligible for relocation payments will not be required to move unless at least one comparable "decent, safe and sanitary" replacement residence, open to all persons regardless of race, color, religion, sex or national origin, is available or has been made available to them by the state.

Any person, business, farm, or non-profit organization, which has been refused a relocation payment by Caltrans, or believes that the payments are inadequate, may appeal for a hearing before a hearing officer or Caltrans' Relocation Assistance Appeals Board. No legal assistance is required; however, the displacee may choose to obtain legal council at his/her expense. Information about the appeal procedure is available Caltrans' Relocation Advisors.

The information above is not intended to be a complete statement of all of Caltrans' laws and regulations. At the time of the first written offer to purchase, owner-occupants are given a more detailed explanation of the state's relocation services. Tenant occupants of properties to be acquired are contacted immediately after the first written offer to purchase, and also given a more detailed explanation of Caltrans' relocation programs.

IMPORTANT NOTICE

To avoid loss of possible benefits, no individual, family, business, farm or non-profit organization should commit to purchase or rent a replacement property without first contacting a Department of Transportation relocation advisor at:

State of California Department of Transportation, District 8
464 W. Fourth Street, 6th Floor
San Bernardino, CA 92401-1400

Appendix D **Environmental Commitment Record**

El Dorado County, as the lead agency under the California Environmental Quality Act (CEQA), has developed an Environmental Commitment Record for the U.S. 50/Ponderosa Road Interchange Improvement Project. This list is designed to ensure that the mitigation measures identified in the project's Initial Study/Environmental Assessment are implemented.

The following table contains a list of the avoidance, minimization, and/or mitigation measures. For each measure, the table identifies timing of implementation, party responsible for implementation, completion check box, and space for initials.

El Dorado County is responsible for ensuring the implementation of all measures in this Environmental Commitment Record.

Task and Brief Description	Timing	Responsible Party	Completed	Initials	Notes (optional)
Community Character and Cohesion					
Measure CCC-1: Prior to the start of construction, the County shall 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. These efforts will be paired with the Traffic 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 shall be compensated in accordance with fair market values based on appraisals. Business owners shall be compensated based on an assessment of the values of the business and any loss of good will.	Prior to construction	County	☐	_____	
Measure RLC-2: All efforts would be made to identify relocation opportunities for affected businesses that would reduce the loss of good will and historic patronage. Wherever feasible, assistance would be made available in identifying suitable relocation sites within the service area of existing businesses.	Prior to construction	County	☐	_____	

Task and Brief Description	Timing	Responsible Party	Completed	Initials	Notes (optional)
Utilities/Emergency Services					
Measure UTL/ES-1: To avoid any minimize interruptions of service to utility customers, a series of coordination letters shall 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	☐	_____	
Measure UTL/ES-2: A Transportation Management Plan shall 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 shall be maintained to ADA standards.	During construction	Resident Engineer	☐	_____	
Measure TRAF-2: Prior to the start of construction, the County shall 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 effects to travelers, a Traffic 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	☐	_____	

Task and Brief Description	Timing	Responsible Party	Completed	Initials	Notes (optional)
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	☐	_____	
Measure CR-2: If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall 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 Run-off					
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. 2012-0011-DWQ, which was approved on July 1, 2013. 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 run-off 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 run-off. 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	☐	_____	
Geology/Soils/Seismic/Topography					
Measure GEO-1: 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 NOA are not significant.	Prior to construction (prepare) / During construction (implement)	County / Resident Engineer	☐	_____	
Hazardous Waste or Materials					
Measure HW-1: All parcels listed in Table 17 will require a Phase II Environmental Site Assessment prior to completion of final design. This investigation shall include an in-depth record review, site inspection and interviews with the County Environmental Health Department and property owner. If these preliminary investigations are not able to determine the presence or absence of hazardous materials, subsurface investigations will be necessary. Subsurface investigations shall include soil and shallow ground water sample collection analysis..	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 shall 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 shall 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	☐	_____	

Task and Brief Description	Timing	Responsible Party	Completed	Initials	Notes (optional)
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 shall be prepared for any work within existing Caltrans ROW at U.S. 50. An appropriate soil management plan shall 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	☐	_____	
Measure HW-5: 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 (prepare) / During construction (implement)	County / Resident Engineer	☐	_____	

Task and Brief Description	Timing	Responsible Party	Completed	Initials	Notes (optional)
Air Quality					
Measure AQ-1: During construction, all activities shall 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 shall be submitted to the Air Quality Management District for review and approval. All BMPs and minimization measures required by the AQMD shall 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	☐	_____	

Task and Brief Description	Timing	Responsible Party	Completed	Initials	Notes (optional)
Measure NOI-2: The contractor will implement appropriate additional noise mitigation 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	☐	_____	
Measure NOI-3: Construction shall 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	☐	_____	
Measure NOI-4: A 6 dB increase in traffic noise levels is predicted under Alternatives 1 and 2 along the realignment of Durock Road. The proposed project shall use rubberized asphalt or open-graded asphalt concrete to reduce traffic noise levels by approximately 4 to 5 dB. Implementation of this measure is predicted to reduce the impact to a less than significant level.	During construction	Resident Engineer	☐	_____	
Biological Environment					
Natural Communities					
Measure BIO-1: El Dorado County will contribute to the Oak Woodlands Conservation Fund at a rate of $8,285 per acre of oak woodland area lost, or approximately $37,946 for Alternative 1, $41,840 for Alternative 2, and $12,428 for Alternative 3. These fees are paid to the County's Oak Woodlands Conservation Fund that provides for the preservation of comparable habitat in areas designated as having high biological value. Fees will be paid concurrent with phased construction; each payment will mitigate for the area to be impacted by that phase, prior to that phase's start of 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 (prepare) / During construction (implement)	County / Resident Engineer	☐	_____	

Task and Brief Description	Timing	Responsible Party	Completed	Initials	Notes (optional)
Measure BIO-3: To the extent feasible, topsoil that is free of noxious weeds containing native seed stock shall be stockpiled separately from subsoils. The soils shall be used during revegetation upon completion of construction activities.	During construction	Resident Engineer	☐	_____	
Measure BIO-4: Trees to be impacted shall 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 shall be avoided.	During construction	Resident Engineer	☐	_____	
Measure BIO-5: All native oak trees to remain in place within and adjacent to proposed ground disturbances shall be designated as "Environmentally Sensitive Areas" (ESAs) and shall be temporarily fenced with orange plastic construction (exclusion) fencing throughout all grading and construction activities. To the extent feasible, the exclusion fencing shall be installed 6 feet outside the dripline of oak trees greater than 6 inches dbh, and shall 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 shall be parked, stored or operated within 6 feet of any specimen tree dripline.	During construction	Resident Engineer	☐	_____	
Measure BIO-7: The revegetation/restoration plan shall be designed to minimize soil loss immediately after construction and to revegetate disturbed areas with appropriate native plants. The revegetation/restoration plan shall 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	☐	_____	

Task and Brief Description	Timing	Responsible Party	Completed	Initials	Notes (optional)
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 shall be obtained from within the Ponderosa Interchange project area when feasible or alternatively from contract-growers using locally occurring native plants. Advance notice shall 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	☐	_____	
Wetlands and Other Waters					
Measures BIO-9: Establish all waterways and aquatic features within the Ponderosa Interchange project area as ESAs. ESA exclusion fencing and silt fencing shall 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.	During construction	Resident Engineer	☐	_____	
Measures BIO-11: The contractor shall 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 shall be used for erosion control during construction.	During construction	Resident Engineer	☐	_____	

Task and Brief Description	Timing	Responsible Party	Completed	Initials	Notes (optional)
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 shall not be used for eriosion 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	☐	_____	
Threatened or Endangered Species					
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 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	☐	_____	

Task and Brief Description	Timing	Responsible Party	Completed	Initials	Notes (optional)
Invasive Species					
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	☐	_____	
Measures BIO-18: To minimize the risk of the risk of introducing additional non-native species into the area, weed-free erosion control applications shall be used. No dry-farmed straw will be used and certified weed-free straw shall 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 shall 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 shall employ whatever cleaning methods (typically with the use of a high-pressure water hose) are necessary to ensure that equipment is free of noxious weeds. Equipment shall 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	☐	_____	
Climate Change under the California Environmental Quality Act					
Measure GHG-1: Energy efficient lighting, such as LED traffic signals and street lights, will be used when possible.	Prior to construction (prepare) / During construction (implement)	County / Resident Engineer	☐	_____	

Appendix E **Regional Transportation Plan / Regional Transportation Improvement Plan**

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

Project TItle

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

EA Number:n/a | Last Revised 17-00 | Completion Year **2035**

Fed FY	Revenue Source	Engineering	Right of Way	Construction	Total Revenue
<17		$925,000	$162,000		$1,087,000
>20		$3,100,000	$720,000	$11,400,000	$15,220,000
		$4,025,000	**$882,000**	**$11,400,000**	**$16,307,000**

Project Description

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; includes PE for all phases; (See ELD19170/CIP71339 and ELD19244/CIP71338). Coordinates with ELD19289/CIP53116, ELD19219/CIP#GP150, ELD19246/CIPGP171, and ELD19250/CIP#GP175. (CIP71333)

(Latest Federally Approved) Total Cost **$16,307,000**

SACOG ID **ELD15610** **ELD** Lead Agency **El Dorado County**

Project TItle

US 50/Silva Valley Pkwy Interchange - Phase 1

EA Number:1E290 | Last Revised 17-00 | Completion Year **2017**

Fed FY	Revenue Source	Engineering	Right of Way	Construction	Total Revenue
<17		$6,699,400	$11,513,500	$36,704,500	$54,917,400
2017	Local - Developer - Transportation Improvement Fee			$1,900,000	$1,900,000
		$6,699,400	**$11,513,500**	**$38,604,500**	**$56,817,400**

Project Description

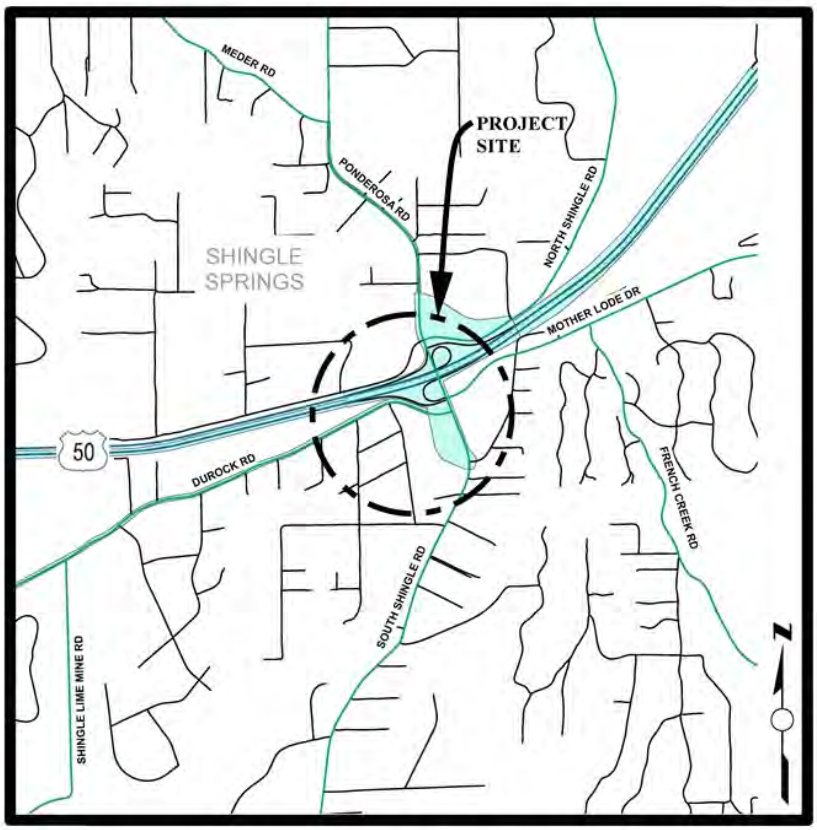
New Interchange: Phase 1 includes US 50 on-/off-ramps, overcrossing, and US 50 aux lanes. See ELD19291/CIP71345 for Phase 2. (CIP71328)

(Latest Federally Approved) Total Cost **$56,817,400**

U.S. 50/Ponderosa Rd Interchange - Durock Rd Realignment

Financing Plan & Tentative Schedule

Project No: 71338 **Type: Interchange** **Supervisor District(s) 2**



LOCATION MAP

NOT TO SCALE

Click for Interactive Map

Project Description:

Project Description:
This project includes realignment of approximately 1/4 mile of Durock Road to South Shingle Road/Sunset Lane and signalization of the new intersection. Durock Road will be two through lanes with turn pockets at the intersection. This project is part of a larger project, US 50/Ponderosa Road/South Shingle Road interchange (project 71333). 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), US 50/Ponderosa Road Interchange - N. Shingle Road Realignment (project 71339) and US 50 Eastbound Auxiliary Lane from Cameron Park Drive Interchange to Ponderosa Road Interchange (53127).

Expenditures thru 6/30/2016: $14,600 Project Initiation Date: 02/11/08

U.S. 50/Ponderosa Rd Interchange - Durock Rd Realignment

CIP Project Summary

Project No: 71338 **Type: Interchange** **Supervisor District(s) 2**

All Figures in Thousands

Revenue by Funding Source	Prior FY*	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23-26/27	FY 27/28-36/37	Total
TIM - Hwy 50	$7	$0	$0	$0	$0	$0	$1,029	$8,837	$9,873
TIM - Zns 1-7	$7	$0	$0	$0	$0	$0	$0	$0	$7
Total	$15	$0	$0	$0	$0	$0	$1,029	$8,837	$9,880

All Figures in Thousands

Expenditures	Prior FY*	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23-26/27	FY 27/28-36/37	Total
Planning/Env - Staff	$9	$0	$0	$0	$0	$0	$0	$0	$9
Design - Consultant	$0	$0	$0	$0	$0	$0	$69	$0	$69
Design - Staff	$4	$0	$0	$0	$0	$0	$960	$0	$964
Right of Way - Acquisition	$0	$0	$0	$0	$0	$0	$0	$2,629	$2,629
Right of Way - Consultant	$0	$0	$0	$0	$0	$0	$0	$69	$69
Right of Way - Staff	$0	$0	$0	$0	$0	$0	$0	$55	$55
Construction Mgmt - Staff	$0	$0	$0	$0	$0	$0	$0	$934	$934
Direct Construction Costs	$0	$0	$0	$0	$0	$0	$0	$5,119	$5,119
Env Monitoring - Consultant	$0	$0	$0	$0	$0	$0	$0	$28	$28
Env Monitoring - Staff	$1	$0	$0	$0	$0	$0	$0	$2	$3
Total	$15	$0	$0	$0	$0	$0	$1,029	$8,837	$9,880

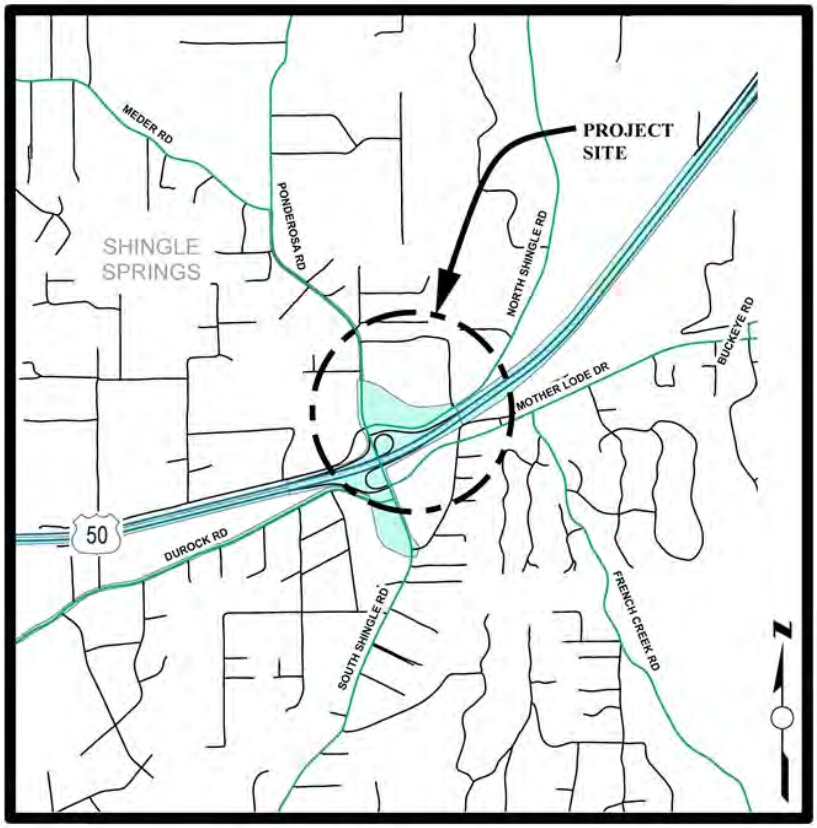
Project Schedule	Prior FY*	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23-26/27	FY 27/28-36/37	
Planning / Environmental									
Design									
Right Of Way									
Construction									
Environmental Monitoring									

*Prior FY includes actual revenue and expenditures through 06/30/16, plus amounts estimated through 6/30/17.

U.S. 50/Ponderosa Rd Interchange - N. Shingle Rd Realignment

Financing Plan & Tentative Schedule

Project No: 71339 **Type: Interchange** **Supervisor District(s) 4**



LOCATION MAP

NOT TO SCALE

Click for Interactive Map

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 signalizing the new intersection. Realigned North Shingle Road will be two through lanes with turn pockets at the intersection. Part of a larger project for the reconstruction of the US 50/Ponderosa Road/South Shingle Road interchange (project 71333). Preliminary engineering for this phase shall be performed under the interchange project. Work needs to be coordinated with 71333, 71338, and 53128.

Expenditures thru 6/30/2016: $9,254 Project Initiation Date: 02/11/08

U.S. 50/Ponderosa Rd Interchange - N. Shingle Rd Realignment

CIP Project Summary

Project No: 71339 **Type: Interchange** **Supervisor District(s) 4**

All Figures in Thousands

Revenue by Funding Source	Prior FY*	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23-26/27	FY 27/28-36/37	Total
TIM - Hwy 50	$5	$0	$0	$0	$0	$0	$1,035	$5,891	$6,930
TIM - Zns 1-7	$5	$0	$0	$0	$0	$0	$0	$0	$5
Total	$9	$0	$0	$0	$0	$0	$1,035	$5,891	$6,935

All Figures in Thousands

Expenditures	Prior FY*	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23-26/27	FY 27/28-36/37	Total
Planning/Env - Staff	$5	$0	$0	$0	$0	$0	$0	$0	$5
Design - Consultant	$0	$0	$0	$0	$0	$0	$69	$0	$69
Design - Staff	$4	$0	$0	$0	$0	$0	$966	$0	$969
Right of Way - Acquisition	$0	$0	$0	$0	$0	$0	$0	$864	$864
Right of Way - Consultant	$0	$0	$0	$0	$0	$0	$0	$21	$21
Right of Way - Staff	$0	$0	$0	$0	$0	$0	$0	$35	$35
Construction Mgmt - Staff	$0	$0	$0	$0	$0	$0	$0	$747	$747
Direct Construction Costs	$0	$0	$0	$0	$0	$0	$0	$4,148	$4,148
Env Monitoring - Consultant	$0	$0	$0	$0	$0	$0	$0	$62	$62
Env Monitoring - Staff	$0	$0	$0	$0	$0	$0	$0	$15	$15
Total	$9	$0	$0	$0	$0	$0	$1,035	$5,891	$6,935

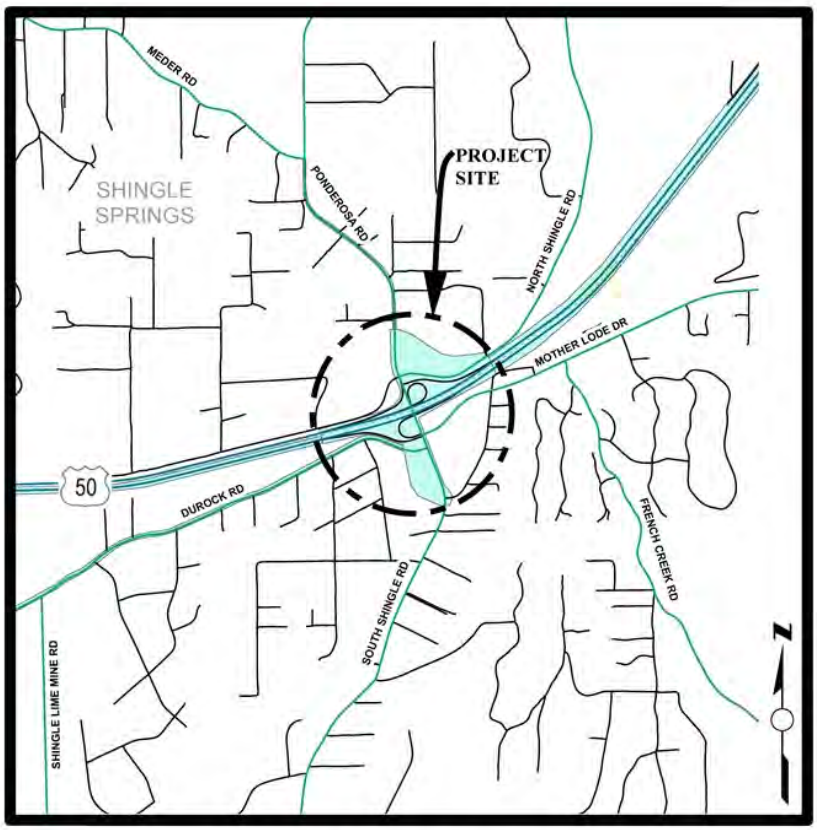
Project Schedule	Prior FY*	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23-26/27	FY 27/28-36/37	
Planning / Environmental									
Design									
Right Of Way									
Construction									
Environmental Monitoring									

*Prior FY includes actual revenue and expenditures through 06/30/16, plus amounts estimated through 6/30/17.

U.S. 50/Ponderosa Rd/So. Shingle Rd Interchange Improvements

Financing Plan & Tentative Schedule

Project No: 71333 **Type: Interchange** **Supervisor District(s) 2, 4**



LOCATION MAP

NOT TO SCALE

Click for Interactive Map

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 loop on-ramp, ramp widenings, and widening of Ponderosa Road, Mother Lode Drive and South Shingle Road. Preliminary engineering for all phases (projects 71333, 71338 and 71339) shall be performed under the interchange project. This project requires the construction of US 50 /Ponderosa Road - North Shingle Road Realignment (project 71338) and US 50 / Ponderosa Road Interchange - Durock Road Realignment (project 71339). This project shall also be coordinated with US 50 Eastbound Auxiliary Lanes - Cameron Park Interchange to Ponderosa Road Interchange (53127), and US 50 Westbound Auxiliary Lanes - Ponderosa Road Interchange to Cameron Park Drive Interchange (53128).

Expenditures thru 6/30/2016: $1,114,885 Project Initiation Date: 02/13/07

U.S. 50/Ponderosa Rd/So. Shingle Rd Interchange Improvements

CIP Project Summary

Project No: 71333 **Type: Interchange** **Supervisor District(s) 2, 4**

All Figures in Thousands

Revenue by Funding Source	Prior FY*	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23-26/27	FY 27/28-36/37	Total
Interim Highway 50 Variable TIM Fee	$1	$0	$0	$0	$0	$0	$0	$0	$1
Road Fund/Discretionary	$28	$0	$0	$0	$0	$0	$0	$0	$28
TIM - Hwy 50	$601	$0	$0	$0	$0	$0	$0	$21,438	$22,039
TIM - Zns 1-7	$505	$0	$0	$0	$0	$0	$0	$0	$505
Traffic Impact Mitigation Fee (West Slope)	$53	$0	$0	$0	$0	$0	$0	$0	$53
Total	$1,188	$0	$0	$0	$0	$0	$0	$21,438	$22,625

All Figures in Thousands

Expenditures	Prior FY*	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23-26/27	FY 27/28-36/37	Total
Planning/Env - Consultant	$854	$0	$0	$0	$0	$0	$0	$0	$854
Planning/Env - Staff	$279	$0	$0	$0	$0	$0	$0	$0	$279
Design - Consultant	$0	$0	$0	$0	$0	$0	$0	$294	$294
Design - Staff	$32	$0	$0	$0	$0	$0	$0	$2,635	$2,667
Right of Way - Acquisition	$0	$0	$0	$0	$0	$0	$0	$906	$906
Right of Way - Consultant	$13	$0	$0	$0	$0	$0	$0	$91	$104
Right of Way - Staff	$10	$0	$0	$0	$0	$0	$0	$126	$137
Construction Mgmt - Consultant	$0	$0	$0	$0	$0	$0	$0	$489	$489
Construction Mgmt - Staff	$0	$0	$0	$0	$0	$0	$0	$2,408	$2,408
Direct Construction Costs	$0	$0	$0	$0	$0	$0	$0	$14,488	$14,488
Total	$1,188	$0	$0	$0	$0	$0	$0	$21,438	$22,625

Project Schedule	Prior FY*	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23-26/27	FY 27/28-36/37	
Planning / Environmental									
Design									
Right Of Way									
Construction									
Environmental Monitoring									

*Prior FY includes actual revenue and expenditures through 06/30/16, plus amounts estimated through 6/30/17.

Appendix F **CNDDB, CNPS and USFWS Special Status Species Lists**

CNPS California Native Plant Society

Plant List

Inventory of Rare and Endangered Plants

12 matches found. *Click on scientific name for details*

Search Criteria

Found in Quad 3812068

Modify Search Criteria | Export to Excel | Modify Columns | Modify Sort | Display Photos

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Allium jepsonii	Jepson's onion	Alliaceae	perennial bulbiferous herb	Apr-Aug	1B.2	S2	G2
Calystegia stebbinsii	Stebbins' morning-glory	Convolvulaceae	perennial rhizomatous herb	Apr-Jul	1B.1	S1	G1
Carex xerophila	chaparral sedge	Cyperaceae	perennial herb	Mar-Jun	1B.2	S2	G2
Ceanothus fresnensis	Fresno ceanothus	Rhamnaceae	perennial evergreen shrub	May-Jul	4.3	S4	G4
Ceanothus roderickii	Pine Hill ceanothus	Rhamnaceae	perennial evergreen shrub	Apr-Jun	1B.1	S1	G1
Chlorogalum grandiflorum	Red Hills soaproot	Agavaceae	perennial bulbiferous herb	May-Jun	1B.2	S2	G2
Clarkia biloba ssp. brandegeeae	Brandegee's clarkia	Onagraceae	annual herb	May-Jul	4.2	S4	G4G5T4
Crocanthemum suffrutescens	Bisbee Peak rush-rose	Cistaceae	perennial evergreen shrub	Apr-Aug	3.2	S2	G2Q
Fremontodendron decumbens	Pine Hill flannelbush	Malvaceae	perennial evergreen shrub	Apr-Jul	1B.2	S1	G1
Galium californicum ssp. sierrae	El Dorado bedstraw	Rubiaceae	perennial herb	May-Jun	1B.2	S1	G5T1
Packera layneae	Layne's ragwort	Asteraceae	perennial herb	Apr-Aug	1B.2	S2	G2
Wyethia reticulata	El Dorado County mule ears	Asteraceae	perennial herb	Apr-Aug	1B.2	S2	G2

Suggested Citation

California Native Plant Society, Rare Plant Program. 2017. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed 04 May 2017].

Simple Search
Advanced Search
Glossary

About the Inventory
About the Rare Plant Program
CNPS Home Page
About CNPS
Join CNPS

The Calflora Database
The California Lichen Society

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To: May 04, 2017
Consultation Code: 08ESMF00-2017-SLI-1969
Event Code: 08ESMF00-2017-E-05007
Project Name: U.S. 50/Ponderosa

Subject: List of threatened and endangered species that may occur in your proposed project location, and/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, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) 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 Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

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 ECOS-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 ECOS-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:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

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 Tracking Number 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

Consultation Code: 08ESMF00-2017-SLI-1969

Event Code: 08ESMF00-2017-E-05007

Project Name: U.S. 50/Ponderosa

Project Type: TRANSPORTATION

Project Description: The El Dorado County Department of Transportation (County) proposes to improve the United States (U.S.) Highway 50/Ponderosa/South Shingle Springs Road Interchange and realign frontage roads at Durock Road, North Shingle Road and Wild Chaparral Drive in El Dorado County, California.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/38.66298634487289N120.93758163912523W

Counties: El Dorado, CA

Endangered Species Act Species

There is a total of 8 threatened, endangered, or candidate species on your 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. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area. Please contact the designated FWS office if you have questions.

Amphibians

NAME	STATUS
California Red-legged Frog *(Rana draytonii)* There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened

Fishes

NAME	STATUS
Delta Smelt *(Hypomesus transpacificus)* There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened
Steelhead *(Oncorhynchus (=Salmo) mykiss)* Population: Northern California DPS There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1007	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.

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Clarksville (3812161) OR Coloma (3812078) OR Folsom SE (3812151) OR Latrobe (3812058) OR Pilot Hill (3812171) OR Shingle Springs (3812068))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Candidate Endangered	G2G3	S1S2	SSC
Allium jepsonii Jepson's onion	PMLIL022V0	None	None	G2	S2	1B.2
Ammodramus savannarum grasshopper sparrow	ABPBXA0020	None	None	G5	S3	SSC
Andrena blennospermatis Blennosperma vernal pool andrenid bee	IIHYM35030	None	None	G2	S2	
Aquila chrysaetos golden eagle	ABNKC22010	None	None	G5	S3	FP
Ardea alba great egret	ABNGA04040	None	None	G5	S4	
Ardea herodias great blue heron	ABNGA04010	None	None	G5	S4	
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Balsamorhiza macrolepis big-scale balsamroot	PDAST11061	None	None	G2	S2	1B.2
Banksula californica Alabaster Cave harvestman	ILARA14020	None	None	GH	SH	
Bombus occidentalis western bumble bee	IIHYM24250	None	None	G2G3	S1	
Branchinecta lynchi vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
Buteo regalis ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
Calystegia stebbinsii Stebbins' morning-glory	PDCON040H0	Endangered	Endangered	G1	S1	1B.1
Carex xerophila chaparral sedge	PMCYP03M60	None	None	G2	S2	1B.2
Ceanothus roderickii Pine Hill ceanothus	PDRHA04190	Endangered	Rare	G1	S1	1B.1
Central Valley Drainage Hardhead/Squawfish Stream Central Valley Drainage Hardhead/Squawfish Stream	CARA2443CA	None	None	GNR	SNR	
Chlorogalum grandiflorum Red Hills soaproot	PMLIL0G020	None	None	G2	S2	1B.2

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Clarkia biloba ssp. brandegeeae Brandegee's clarkia	PDONA05053	None	None	G4G5T4	S4	4.2
Cosumnoperla hypocrena Cosumnes stripetail	IIPLE23020	None	None	G2	S2	
Crocanthemum suffrutescens Bisbee Peak rush-rose	PDCIS020F0	None	None	G2Q	S2	3.2
Desmocerus californicus dimorphus valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2	S2	
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Eryngium pinnatisectum Tuolumne button-celery	PDAPI0Z0P0	None	None	G2	S2	1B.2
Fremontodendron decumbens Pine Hill flannelbush	PDSTE03030	Endangered	Rare	G1	S1	1B.2
Galium californicum ssp. sierrae El Dorado bedstraw	PDRUB0N0E7	Endangered	Rare	G5T1	S1	1B.2
Haliaeetus leucocephalus bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
Hydrochara rickseckeri Ricksecker's water scavenger beetle	IICOL5V010	None	None	G2?	S2?	
Oncorhynchus mykiss irideus steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	G5T2Q	S2	
Packera layneae Layne's ragwort	PDAST8H1V0	Threatened	Rare	G2	S2	1B.2
Pekania pennanti fisher - West Coast DPS	AMAJF01021	Proposed Threatened	Candidate Threatened	G5T2T3Q	S2S3	SSC
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
Rana boylii foothill yellow-legged frog	AAABH01050	None	None	G3	S3	SSC
Rana draytonii California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
Riparia riparia bank swallow	ABPAU08010	None	Threatened	G5	S2	
Sagittaria sanfordii Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2
Thamnophis gigas giant gartersnake	ARADB36150	Threatened	Threatened	G2	S2	
Wyethia reticulata El Dorado County mule ears	PDAST9X0D0	None	None	G2	S2	1B.2

Record Count: 40

Appendix G **List of Acronyms**

AB	Assembly Bill
ACM	Asbestos Containing Material
ACOE	Army Corps of Engineers
ADA	Americans with Disabilities Act
APE	Area of Potential Effect
APN	Assessor Parcel Number
AQMD	El Dorado County Air Quality Management District
BMPs	Best Management Practices
CARB	California Air Resources Board
CDFG	California Department of Fish and Game
CEQ	Council of Environmental Quality
CEQA	California Environmental Quality Act
CERFA	Community Environmental Response Facilitation Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CIA	Community Impact Assessment
CIP	Capital Improvement Program
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	carbon monoxide
County	El Dorado County
CWA	Clean Water Act
dB	decibels

dBA	A-weighted decibels
EID	El Dorado Irrigation District
EO	Executive Order
EPA	Environmental Protection Act
ESA	Environmentally Sensitive Areas
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FONSI	Finding of No Significant Impact
GHG	Greenhouse Gas
IPCC	Intergovernmental Panel on Climate Change
ISA	Initial Site Assessment
kV	kilovolt
Leq	equivalent noise level
LOS	level of service
MCAB	Mountain Counties Air Basin
MCE	Maximum Credible Earthquake
MND	Mitigated Negative Declaration
MPO	Metropolitan Planning Organization
MSAT	Mobile Source Air Toxics
MTP	Metropolitan Transportation Plan
NAAQS	National Ambient Air Quality Standards
NAC	noise abatement criteria
NEPA	Natural Environmental Policy Act
NES	Natural Environment Study

NHPA	National Historic Preservation Act
NO_2	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollution Discharge Elimination System
NRHP	National Register of Historic Places
O_3	ozone
OSHA	Occupational Safety and Health Act
OWTS	On-site Water Treatment System
Pb	lead
PM	particulate matter
$PM_{2.5}$	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
ppm	parts per million
PRC	Public Resources Code
RAP	Relocation Assistance Program
RCRA	Resource Conservation and Recovery Act
ROW	right-of-way
RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SACOG	Sacramento Area Council of Governments
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SO_2	sulfur dioxide
STIP	State Transportation Improvement Program

SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
T-BACT	Best Available Control Technology toxic air contaminant engines
TASAS	Traffic Accident Surveillance and Analysis System
TSCA	Toxic Substances Control Act
U.S. 50	United States Highway 50
USC	United States Code
USFWS	United State Fish and Wildlife Service
USGS	United States Geological Survey
VMT	Vehicle Miles Traveled

Appendix H **List of Technical Studies**

These reports are available at the El Dorado County Department of Transportation Offices.

Technical Study	Approval Dates
Air Quality Technical Report (updated August 2011)	June 2009
Biological Assessment for Layne's Butterweed and the California Red Legged Frog	May 2009
Community Impact Assessment	February 2009
Hazardous Waste Initial Site Assessment	January 2009
Historical Property Survey Report (updated 2015)	December 2008
Natural Environment Study (updated 2015)	January 2009
Noise Study Report	January 2009
Noise Study Report – Addendum	February 2009
Preliminary Geotechnical Report	December 2008
Relocation Impact Study	April 2009
Traffic Report	March 2009
Visual Impact Assessment	July 2009