

Galleria Boulevard/Stanford Ranch Road/SR 65 Northbound Ramps Improvement Project

State Route 65, Cities of Roseville and Rocklin, Placer County
03-PLA-65-PM R5.4 to R6.4
EA 03-0H560

Initial Study with Mitigated Negative Declaration



Prepared by the
State of California Department of Transportation

June 2016



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Improvement Project
03-PLA-65-PM R5.4 to R6.4
03-OH560

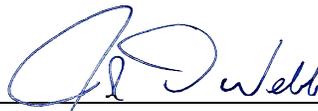
Initial Study with Proposed Mitigated Negative Declaration

Submitted Pursuant to (State) Division 13, California Resource Code

THE STATE OF CALIFORNIA
Department of Transportation

2-25-16

Date of Approval



John D. Webb, Chief

Caltrans Office of Environmental Services – District 3

Contents

| | |
|--|------------|
| Mitigated Negative Declaration | i |
| Project Description | i |
| Determination | i |
| Initial Study | 1 |
| Project Title | 1 |
| Lead Agency Name, Address and Contact Person | 1 |
| Project Location..... | 1 |
| Project Sponsor's Name and Address | 1 |
| Purpose and Need | 1 |
| Description of Project | 2 |
| Environmental Factors Potentially Affected | 11 |
| Impacts Checklist | 12 |
| Affected Environment, Environmental Consequences and Mitigation | |
| Measures | 21 |
| Biological Resources | 21 |
| Climate Change..... | 47 |
| Hazards and Hazardous Materials..... | 63 |
| Hydrology and Water Quality | 67 |
| Noise | 77 |
| Transportation/Traffic | 79 |
| References | 95 |
| List of Preparers | 99 |
| Public Comments and Responses | 101 |

List of Tables

| | | |
|----|--|-----|
| 1 | Permits and Approvals Needed | 5 |
| 2 | Special-Status Plant Species Identified as Having the Potential to Occur in the Project Region | 39 |
| 3 | Special-Status Wildlife and Fish Known or with Potential to Occur in the Project Region..... | 41 |
| 4 | Estimated Greenhouse Gas Emissions from Operation of Galleria Boulevard/Stanford Ranch Road/SR 65 Northbound Ramps Improvements Project (metric tons per year) | 53 |
| 5 | Average Required Fuel Economy (mpg)..... | 54 |
| 6 | GHG Emissions from Construction of Project (metric tons per year)..... | 57 |
| 7 | Climate Change/CO2 Reduction Strategies..... | 59 |
| 8 | Existing Drainage Facilities Crossing SR 65..... | 73 |
| 9 | Temporary Best Management Practices..... | 76 |
| 10 | Construction Equipment Noise | 78 |
| 11 | Freeway LOS Descriptions | 80 |
| 12 | Signalized Intersection LOS Descriptions | 81 |
| 13 | Network Performance Summary— Existing (2012) Peak Period Conditions | 83 |
| 14 | Selected Intersection Operations Results—Existing (2012) Conditions | 83 |
| 15 | Selected Freeway Operations Results – Existing (2012) Conditions..... | 84 |
| 16 | Comparison of Overall Network Performance – Construction Year AM Peak Period..... | 85 |
| 17 | Comparison of Overall Network Performance – Construction Year PM Peak Period..... | 85 |
| 18 | Comparison of Overall Network Performance – Design Year AM Peak Period..... | 86 |
| 19 | Comparison of Overall Network Performance – Design Year PM Peak Period..... | 88 |
| 20 | Intersection Operations Results—Construction Year Conditions | 89 |
| 21 | Intersection Operations Results—Design Year Conditions | 89 |
| 22 | Selected Freeway Operations Results—Construction Year Conditions | 90 |
| 23 | Selected Freeway Operations Results—Design Year Conditions | 91 |
| 24 | List of Individuals and Agencies Commenting on the Initial Study/Proposed Mitigated Negative Declaration..... | 101 |

List of Figures

| | | |
|---|---|----|
| 1 | Project Location..... | 7 |
| 2 | Proposed Project..... | 9 |
| 3 | Biological Resources and Project Impacts..... | 37 |
| 4 | California Greenhouse Gas Forecast | 51 |
| 5 | Possible Effect of Traffic Operation Strategies in Reducing On-Road CO ₂ Emissions..... | 52 |
| 6 | Cascade of Uncertainties..... | 56 |
| 7 | Mobility Pyramid | 58 |

List of Abbreviated Terms

| | |
|-----------------|--|
| ° | degrees |
| ADL | aerially deposited lead |
| ARB | California Air Resources Board |
| BMPs | best management practices |
| BSA | biological study area |
| C | Celsius |
| Cal/EPA | California Environmental Protection Agency |
| CDFW | California Department of Fish and Wildlife |
| CEQA | California Environmental Quality Act |
| CERCLA | Comprehensive Environmental Response, Compensation and Liability Act of 1980 |
| CESA | California Endangered Species Act |
| CFGC | California Fish and Game Code |
| CH ₄ | methane |
| CNDDDB | California Natural Diversity Database |
| CNPS | California Native Plant Society |
| CO ₂ | carbon dioxide |
| CRPR | California Rare Plant Ranks |
| CTP | California Transportation Plan |
| CWA | Clean Water Act |
| dB | decibels |
| dBA | A-weighted decibels |
| Dbh | diameter at breast height |
| DP-30 | Caltrans Director's Policy 30 |
| DSA | Disturbed Soil Area |
| EO 11990 | Executive Order for the Protection of Wetlands |
| EPA | U.S. Environmental Protection Agency |
| FESA | federal Endangered Species Act |
| FHWA | Federal Highway Administration |
| FR | Federal Register |
| GHG | greenhouse gas |
| LOS | Level of service |

| | |
|-------------------|---|
| MBTA | Migratory Bird Treaty Act |
| MS4 | municipal separate storm sewer systems |
| MTBE | methyl-tert-butyl ether |
| N ₂ O | nitrous oxide |
| NEPA | National Environmental Policy Act |
| NHTSA | National Highway Traffic Safety Administration |
| NMFS | National Marine Fisheries Service |
| NPDES | National Pollutant Discharge Elimination System |
| PM | post mile |
| RCRA | Resource Conservation and Recovery Act of 1976 |
| RWQCBs | Regional Water Quality Control Boards |
| SB | southbound |
| State Water Board | State Water Resources Control Board |
| SWMP | Statewide Storm Water Management Plan |
| SWPPP | Stormwater Pollution Prevention Plan |
| TMDLs | Total Maximum Daily Loads |
| USACE | U.S. Army Corps of Engineers |
| USC | United States Code |
| USFWS | U.S. Fish and Wildlife Service |
| USTs | underground fuel storage tanks |
| VMT | vehicle miles travelled |
| WDRs | Waste Discharge Requirements |

Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans), in cooperation with the Placer County Transportation Planning Agency (PCTPA), Placer County, and the Cities of Roseville and Rocklin, proposes to improve the Galleria Boulevard/Stanford Ranch Road/State Route (SR) 65 northbound (NB) ramps to reduce current and future traffic congestion, improve operations and safety, and comply with current Caltrans and local agency design standards. The proposed project would modify the SR 65 NB ramps at the Galleria Boulevard/Stanford Ranch Road interchange as well as reconfigure the lanes along Galleria Boulevard/Stanford Ranch Road.

Determination

Caltrans has prepared an initial study for this project and, following public review, has determined from this study that the proposed project would not have a significant effect on the environment for the following reasons.

- The project would have minimal or no effect on aesthetics, agricultural resources, air quality, cultural resources, geology/soils, land use and planning, mineral resources, population and housing, public services, recreation, transportation/traffic, and utilities and service systems.
- The project would have a less than significant impact on hazardous waste, hydrology and water quality, and noise.
- The project would have a less than significant impact with the proposed mitigation on biological resources and transportation/traffic.
- Mitigation measures include:
 - Measure 1: Install Fencing to Protect Wetland Resources
 - Measure 2: Conduct Mandatory Environmental Awareness Training for Construction Personnel
 - Measure 3: Retain a Qualified Biologist to Conduct Periodic Monitoring during Construction near Wetland Resources to be Avoided
 - Measure 4: Protect Water Quality and Minimize Sedimentation Runoff in Wetlands
 - Measure 5: Compensate for Permanent Impacts on Wetlands
 - Measure 6: Avoid Potential Indirect Impacts on Vernal Pool Habitat

- Measure 7: Conduct Vegetation Removal during the Non-Breeding Season and Conduct Pre-Construction Surveys for Nesting Migratory Birds
- Measure 8: Install Fencing and/or Flagging to Protect Native Oak Tree
- Measure 9: Regional Coordination for Transportation Improvements

Susan D. Bauer

Susan Bauer, Acting Office Chief
North Region Environmental Services, South
California Department of Transportation

6-14-16

Date

Initial Study

Project Title

Galleria Boulevard/Stanford Ranch Road/SR 65 Northbound Ramps Improvement Project

Lead Agency Name, Address and Contact Person

California Department of Transportation
2379 Gateway Oaks Drive, #150
Sacramento, CA 95833
Kendall Schinke, Environmental Branch Chief
(916) 274-0610

Project Location

The project is located in Placer County in the cities of Roseville and Rocklin at the Galleria Boulevard/Stanford Ranch Road/SR 65 interchange (Figure 1 at the end of this section). The project limits consist of SR 65 at the Galleria Boulevard/Stanford Ranch Road interchange (post mile [PM] R5.4 to R6.4) and along Galleria Boulevard/Stanford Ranch Road between Five Star Boulevard and the SR 65 southbound (SB) ramps intersection. The total length of the project is 0.4 mile along Galleria Boulevard/Stanford Ranch Road.

Project Sponsor's Name and Address

Placer County Transportation Planning Agency
Luke McNeel-Caird
299 Nevada Street
Auburn, CA 95603

Purpose and Need

Purpose

The purpose and objectives of the project are listed below.

- Upgrade the Galleria Boulevard/Stanford Ranch Road/SR 65 NB ramps and adjacent transportation facilities to reduce existing and future traffic congestion.

- Upgrade the Galleria Boulevard/Stanford Ranch Road/SR 65 NB ramps and adjacent transportation facilities to comply with current Caltrans and local agency design standards for safer and more efficient traffic operations.
- Support economic growth by accommodating existing and planned residents, businesses, and visitors in the project area.
- Consider all travel modes and users as part of proposed project improvements.

Need

The project is needed for the following reasons.

- Recurring traffic demand exceeds the current design capacity of the Galleria Boulevard/Stanford Ranch Road/SR 65 NB ramps and adjacent transportation facilities, creating traffic operations and safety issues. These issues result in high delays and wasted fuel, both of which will be exacerbated by traffic from future population and employment growth.
- Some interchange design features do not support current best practices for safe and efficient traffic operations.
- The interchange must operate efficiently, including reduced vehicle weaving, in order to serve existing and future residents, businesses, and visitors in the project area.
- Due to anticipated increased traffic demands of the interchange, safety for all modes of transportation needs to be reviewed and appropriate enhancements or upgrades should be considered in the project area.

Description of Project

The proposed project would modify the SR 65 NB ramps at the Galleria Boulevard/Stanford Ranch Road interchange as well as reconfigure the lanes along Galleria Boulevard/Stanford Ranch Road (Figure 2). The project would construct the following.

- Dual left turn lanes from Galleria Boulevard onto the SR 65 NB slip on-ramp.
- Protected median left turn pockets at the NB and SB ramp intersections, eliminating the inside trap lanes.
- Right turn pocket for the WB¹ approach along Stanford Ranch Road to the NB slip on-ramp.

¹ SR 65 is considered a north-south highway, though the cardinal coordinates at the Galleria Boulevard/Stanford Ranch Road/SR 65 interchange do not match the overall directional flow of SR 65. For the purposes of this document, the flow of traffic on SR 65 is considered either NB or SB and the flow of traffic on Galleria Boulevard/Stanford Ranch Road is considered EB or WB in relation to the flow of traffic on SR 65. Galleria Boulevard is west of SR 65 and Stanford Ranch Road is east of SR 65.

- Widened SR 65 NB to Stanford Ranch Road EB¹ slip off-ramp from one to two lanes at the ramp terminus. Off-ramp would be included with the signalized intersection.
- Widened NB slip on-ramp to two metered general purpose lanes plus a high-occupancy vehicle preferential lane.
- Modified terminus of the NB loop off-ramp to reduce speeds and enhance safety for all modes utilizing the facility.
- Widened NB loop off-ramp inside shoulder to meet design standards.

Currently, at the Galleria Boulevard/Stanford Ranch Road/NB Ramps signalized intersection there is no delineated crosswalk across the slip on-ramp to allow pedestrians to safely cross. The SR 65 NB loop off-ramp geometrics require bicyclists and pedestrians to compete with high-speed traffic merging onto the Galleria Boulevard/Stanford Ranch Road to cross the ramp. Additionally, pedestrians on the south side of the overcrossing have to cross the unsignalized NB slip off-ramp to continue along EB Galleria Boulevard/Stanford Ranch Road.

The proposed project would increase safety for all modes through various improvements including the following:

- Widening and signalization of the NB slip off-ramp to increase capacity and reduce congestion, to reduce the collision rate.
- Adding delineated crosswalks at the NB slip on- and slip off-ramps to increase driver alertness to pedestrians and bicyclists as well as encourage reduced vehicular speeds at the ramp termini.
- Reconfiguring the NB loop off-ramp to provide a tighter curve radius at the ramp terminus, encouraging vehicles to reduce speed and alerting drivers that they are approaching a common pedestrian path.
- Providing dedicated left turn and right turn pockets onto the NB slip on-ramp to better meet driver expectation, decreasing the probability of congestion related accidents.

The NB loop off-ramp would continue to be a yield condition (unsignalized); therefore, a delineated crosswalk is not proposed in order to continue to promote pedestrian and bicyclist awareness.

Project Phasing and Staging of Construction

The project is anticipated to be constructed in conjunction with Phase 1A of the Interstate (I-) 80/SR 65 Interchange Improvements Project. For constructability purposes and to ease maintenance of traffic during construction, the following two-stage approach is proposed for the project.

- Stage 1

- Construct ramp widening work along the NB slip off- and on-ramps. Shifting traffic will be required to maintain access and only short, temporary ramp closures are anticipated.
- Stage 2
 - Construct widening and lane reconfigurations along Galleria Boulevard/Stanford Ranch Road. Temporary lane closures and traffic shifts may be required.
 - Construct SR 65 NB loop off-ramp terminus improvements.
 - Coordinate Stanford Ranch Road/NB ramps intersection signal to incorporate NB slip off-ramp.

The interiors of the slip off- and on-ramps will be designated as proposed construction staging areas, although it is anticipated that the contractor could stage construction equipment anywhere within the limits of Caltrans, City of Roseville, and City of Rocklin right of way, within the limits of the project area with the exception of areas that are also habitat for federally protected vernal pool species (vernal pool fairy shrimp and vernal pool tadpole shrimp). For instance, the interiors of the NB and SB loop off-ramps would be excluded using orange fencing, indicating the areas are environmentally sensitive and to prevent their disturbance.

Right of Way

This project will be constructed within the existing Caltrans, City of Roseville, and City of Rocklin right of way for SR 65 and Galleria Boulevard/Stanford Ranch Road. The existing right of way conditions surrounding the project limits consist of a combination of commercial properties. The build alternative is designed to avoid permanent right of way acquisitions.

No Build Alternative

The No Build Alternative would not make any improvements to the Galleria Boulevard/Stanford Ranch Road/SR 65 interchange to satisfy the purpose and need identified above. The improvements proposed as part of the I-80/SR 65 Interchange Improvements Project and the SR 65 Capacity and Operational Improvements Project would be implemented according to their proposed schedules.

Surrounding Land Uses and Setting

The project area is dominated by the Roseville Galleria mall and other large-scale retail and office developments with associated surface parking. A variety of public and institutional uses are located in the area, including a small park, an electrical substation, a high school, an elementary school, and several churches. Antelope Creek and the Antelope Creek multi-use trail run north and south and are located to the east of the project.

Permits and Approvals Needed

Upon completion of final design for this project, the following agencies will be contacted in order to obtain their jurisdictional permits or approvals.

Table 1. Permits and Approvals Needed

| Agency | Permit/Approval | Status |
|---|--|-------------------|
| U.S. Army Corps of Engineers | Section 404 authorization for fill of waters of the United States | Not yet initiated |
| Central Valley Regional Water Quality Control Board | Section 401 Water Quality Certification and coverage under the NPDES Construction General Permit (Order No. 2009-0009-DWQ) | Not yet initiated |
| Placer County Air Pollution Control District | Formal notification prior to construction | Not yet initiated |

Zoning

The project is located mostly within the city of Roseville. According to the City of Roseville General Plan Land Use Map (City of Roseville 2013) the main land use designations within the project area include Community Commercial (CC), Business Professional (BP), and Regional Commercial (RC). A small portion of the project area, including the NB off-ramp onto Stanford Ranch Road, is located within the city of Rocklin. This portion of Rocklin consists entirely of land designated for Retail Commercial (RC) land use (City of Rocklin 2014).

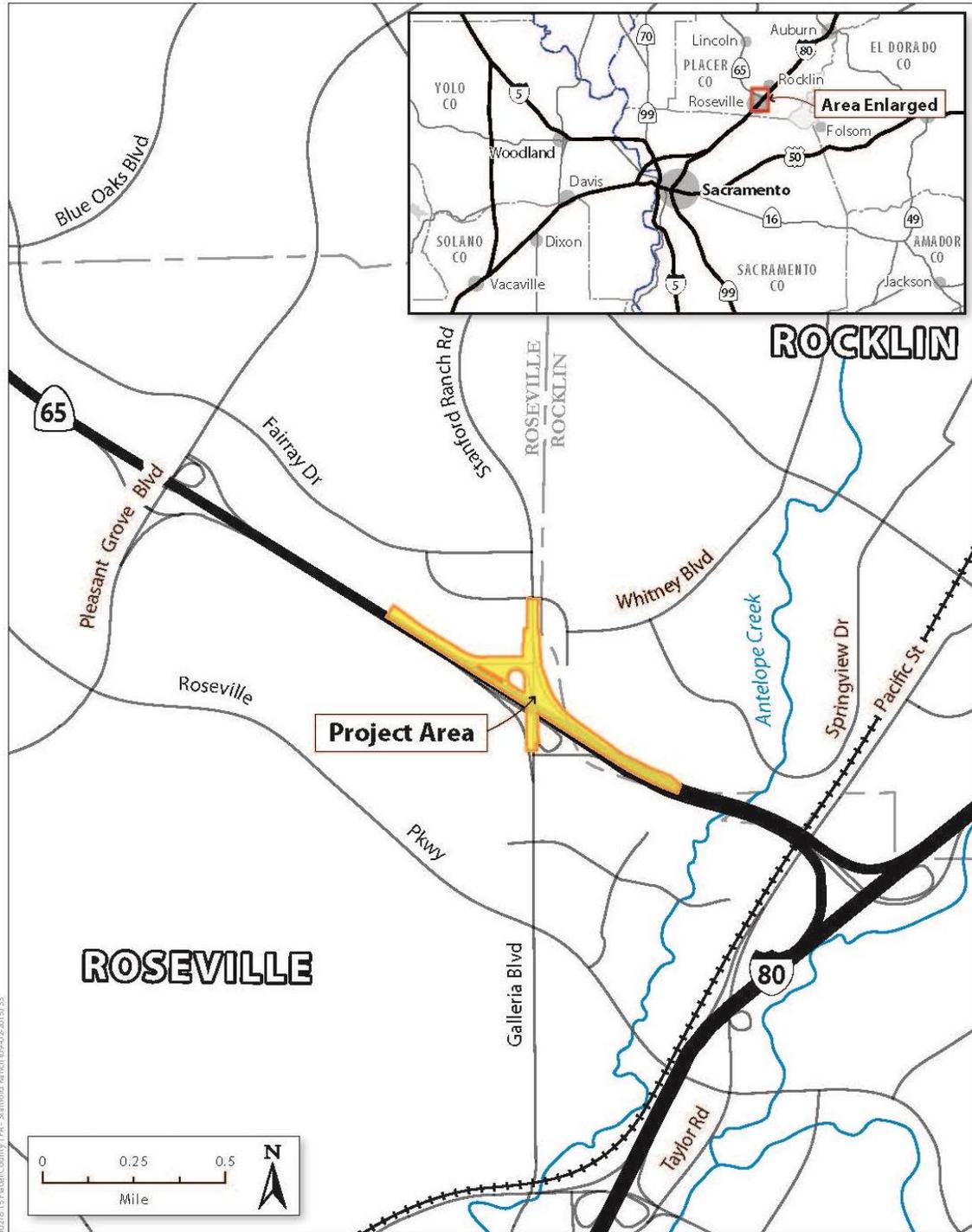


Figure 1: Project Location

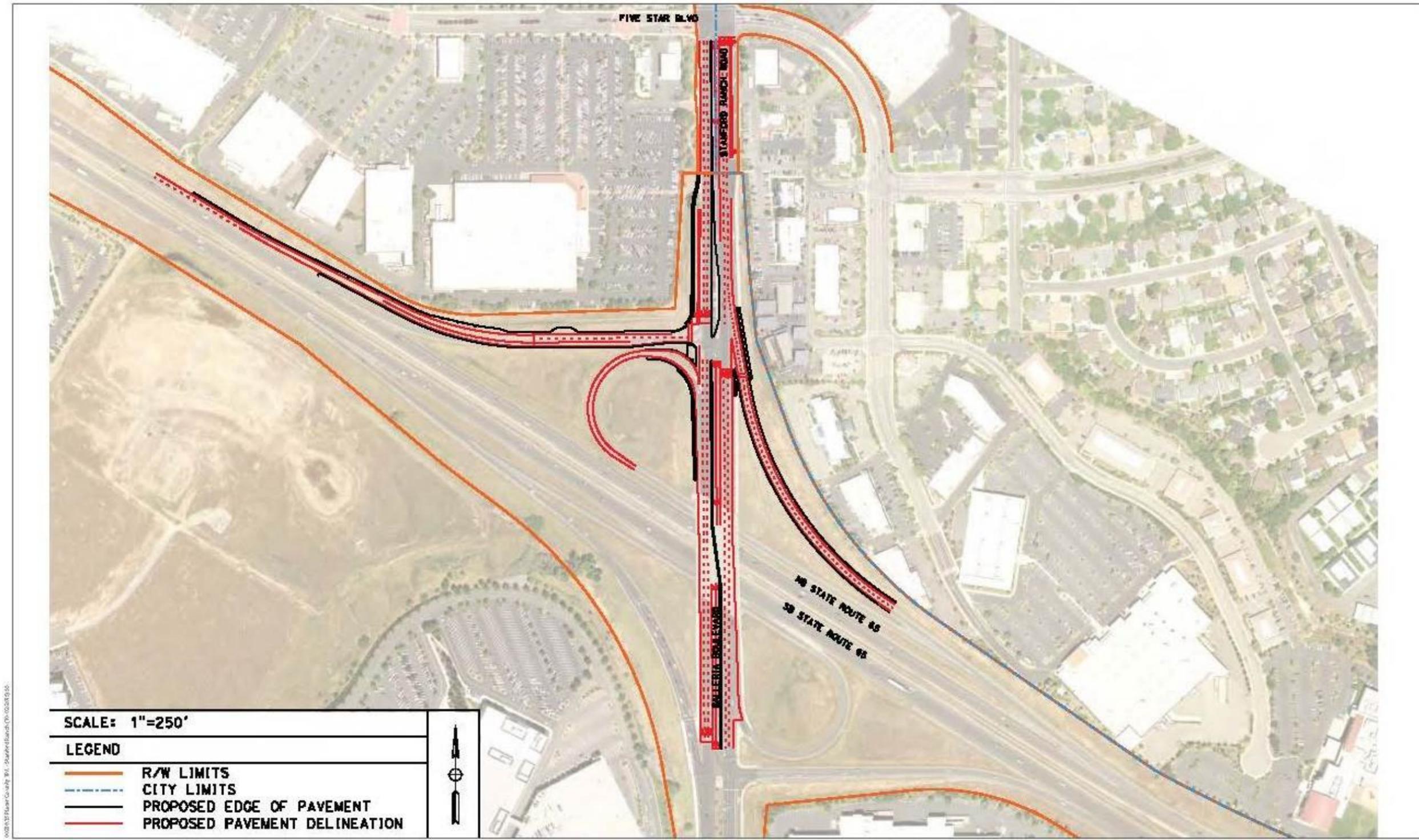


Figure 2: Proposed Project

Environmental Factors Potentially Affected

The environmental factors checked below would 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.

| | | | | | |
|--------------------------|--------------------------|--------------------------|---------------------------------|--------------------------|------------------------------------|
| <input type="checkbox"/> | Aesthetics | <input type="checkbox"/> | Agriculture and Forestry | <input type="checkbox"/> | Air Quality |
| <input type="checkbox"/> | Biological Resources | <input type="checkbox"/> | Cultural Resources | <input type="checkbox"/> | Geology/Soils |
| <input type="checkbox"/> | Greenhouse Gas Emissions | <input type="checkbox"/> | Hazards and Hazardous Materials | <input type="checkbox"/> | Hydrology/Water Quality |
| <input type="checkbox"/> | Land Use/Planning | <input type="checkbox"/> | Mineral Resources | <input type="checkbox"/> | Noise |
| <input type="checkbox"/> | Population/Housing | <input type="checkbox"/> | Public Services | <input type="checkbox"/> | Recreation |
| <input type="checkbox"/> | Transportation/Traffic | <input type="checkbox"/> | Utilities/Service Systems | <input type="checkbox"/> | Mandatory Findings of Significance |

Impacts Checklist

The impacts checklist starting on page 13 identifies physical, biological, social, and economic factors that might be affected by the proposed project. The California Environmental Quality Act (CEQA) impact levels include “potentially significant impact,” “less than significant impact with mitigation,” “less than significant impact,” and “no impact.” A brief explanation of each CEQA checklist determination follows each resource topic. The checklist is followed by a more detailed discussion of the checklist items marked as “less than significant impact” or “less than significant impact with mitigation.”

| | 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 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

“No impact” determinations in this section are based on review of the project area and the results in the Community Impact Technical Memorandum (ICF International 2015a) and Historic Property Survey Report (ICF International 2015b). There are no scenic vistas or scenic resources in the project area. The proposed project involves only minor changes in the existing roadway and would not degrade the existing visual character of the area. The project would not introduce new sources of light or glare.

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:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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))? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Result in the loss of forest land or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

“No Impact” determinations in this section are based on the Community Impact Technical Memorandum (ICF International 2015a). No farmland or forest resources are located in the project area or adjacent to the proposed project.

| | 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Expose sensitive receptors to substantial pollutant concentrations? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Create objectionable odors affecting a substantial number of people? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

“No impact” determinations in this section are based on the Air Quality Study Report (ICF International 2015c).

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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

“No impact” determinations in this section are based on the Natural Environment Study (ICF International 2015d). A more detailed discussion of topics checked “less than significant impact” or “less than significant with mitigation” follows this checklist.

| | 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 section 15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to section 15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Disturb any human remains, including those interred outside of formal cemeteries? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

“No Impact” determinations in this section are based on the Historic Property Survey Report (ICF International 2015b).

| | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| ii) Strong seismic ground shaking? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| iii) Seismic-related ground failure, including liquefaction? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| iv) Landslides? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Result in substantial soil erosion or the loss of topsoil? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

“No Impact” determinations in this section are based on conversations with the project engineers (November 2015) and the Natural Resources Conservation Service web soil survey/national cooperative soil survey (Natural Resources Conservation Service 2015).

| 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?
- b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

An assessment of the greenhouse gas emissions and climate change is included in the body of this environmental document following the checklist. While Caltrans has included this good faith effort in order to provide the public and decision-makers as much information as possible about the project, it is Caltrans' determination that in the absence of further regulatory or scientific information related to greenhouse gas 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. Caltrans 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.

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 2 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?

| | | | |
|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

"No impact" determinations in this section are based on the hazardous materials reports by Blackburn Consulting (2015a and b). A more detailed discussion of topics checked "less than significant impact" follows this checklist.

| | 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f) Otherwise substantially degrade water quality? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| j) Inundation by seiche, tsunami, or mudflow | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

“No impact” determinations in this section are based on the Hydrology and Hydraulic Memorandum (WRECO 2015a), and the Water Quality Study Memorandum (WRECO 2015b). A more detailed discussion of topics checked “less than significant impact” follows this checklist.

X. LAND USE AND PLANNING: Would the project:

| | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Physically divide an established community? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

“No Impact” determinations in this section are based on the Community Impact Technical Memorandum (ICF International 2015a).

| | 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

“No Impact” determinations in this section are based on the Community Impact Technical Memorandum (ICF International 2015a).

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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

“No impact” determinations in this section are based on the Noise Study Report (ICF International 2015e). A more detailed discussion of topics checked “less than significant impact” follows this checklist.

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)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

“No Impact” determinations in this section are based on the Community Impact Technical Memorandum (ICF International 2015a).

| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Police protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Schools? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Parks? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Other public facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Project does not include impacts associated with the provision of new or altered governmental facilities.

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?

| | | | |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

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?

| | | | |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

“No Impact” determinations in this section are based on the Community Impact Technical Memorandum (ICF International 2015a).

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?

| | | | |
|--------------------------|-------------------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|--------------------------|-------------------------------------|--------------------------|--------------------------|

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?

| | | | |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

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?

| | | | |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

| | | | |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

e) Result in inadequate emergency access?

| | | | |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

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?

| | | | |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

“No impact” determinations in this section are based on the Transportation Analysis Report (Fehr & Peers 2015). A more detailed discussion of the topic checked “less than significant with mitigation” follows this checklist.

| | 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Comply with federal, state, and local statutes and regulations related to solid waste? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Project does not include impacts associated with wastewater or potable water conveyance or treatment facilities. Stormwater determinations in this section are based on the Hydrology and Hydraulic Memorandum (WRECO 2015a). Project would not create a new source of solid waste.

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? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 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)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Affected Environment, Environmental Consequences and Mitigation Measures

The following is a discussion of the resource topics for checklist items marked as “less than significant impact” or “less than significant impact with mitigation.”

Biological Resources

The affected environment and subsequent analysis for biological resources is based on the Natural Environment Study prepared for the proposed project in October 2015 (ICF International 2015d).

The extent of the biological study area (BSA) is shown in Figure 3 (located at the end of this section). The BSA is centered on the existing Galleria Boulevard/Stanford Ranch Road/SR 65 interchange and incorporates predominantly developed and graded areas adjacent to the interchange. The biological conditions of the BSA are described below and are followed by more specific discussions by biological resource including the regulatory setting, affected environment, environmental consequences, and avoidance, minimization and/or mitigation measures.

Biological Conditions in the Study Area

The term *land cover types* is used in this document to refer to natural communities and developed or disturbed areas. Land cover types within the BSA include annual grassland, developed, disturbed/graded, ephemeral drainage, emergent wetland, seasonal wetland, and vernal pool. Most of the BSA is developed or disturbed/graded, with only small areas of the other land cover types. Each of these land cover types is shown in Figure 3 and described below.

In the BSA, three land cover types (emergent wetland, seasonal wetland, and vernal pool) are considered natural communities of special concern. *Natural communities of special concern* are habitats considered sensitive because of their high species diversity, high productivity, unusual nature, limited distribution, or declining status. Local, state, and federal agencies consider these habitats important. The U.S. Fish and Wildlife Service (USFWS) considers certain habitats, such as wetlands, important to wildlife; and the U.S. Army Corps of Engineers (USACE) and U.S. Environmental Protection Agency (EPA) consider wetland habitats important for water quality and wildlife.

The distribution, representative vegetation, and typical wildlife species found in land cover types within the BSA are described below.

Annual Grassland

A small area of annual grassland occurs at the south end of SR 65 in the BSA. Common grass species are Italian ryegrass (*Festuca perennis*), Medusahead (*Elymus caput-medusae*), slender

wild oat (*Avena barbata*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), and foxtail barley (*Hordeum murinum* ssp. *leporinum*). Representative forb species are California poppy (*Eschscholzia californica*), Italian thistle (*Carduus pycnocephalus*), yellow star-thistle (*Centaurea solstitialis*), rough cat's-ear (*Hypochaeris radicata*), and broadleaf filaree (*Erodium botrys*). Annual grassland also contains scattered oak trees (*Quercus* spp.).

Developed Areas

Developed portions of the BSA consist of commercial areas and roadways. The vegetation in developed areas typically consists of ornamental species planted for decorative or landscaping purposes and commonly include Washington fan palms (*Washingtonia robusta*), Japanese maple (*Acer palmatum*), Callery pear (*Pyrus calleryana*), and pines (*Pinus* spp.).

Disturbed/Graded Areas

Disturbed/graded portions of the BSA include areas adjacent to roadways and within the ramp loops that were graded during construction of the roadways or adjacent development. This category also includes areas graded in preparation for development or construction (e.g., area west of SR 65 adjacent to the Galleria Mall). The vegetative composition of these areas typically consists of non-native species, particularly annual grasses and weedy forbs, with scattered trees and shrubs. One mature valley oak tree grows at the edge of the disturbed/graded area east of SR 65 at the southeast end of the BSA. The density of vegetation is variable and ranges from relatively high in areas along roadways to more sparse in areas that recently have been graded.

Ephemeral Drainage

Within the BSA, one ephemeral drainage is present along the Galleria Mall parking area west of SR 65. This drainage is a swale-like feature that conveys stormwater runoff from the adjacent development only during, and for a short duration following, precipitation events.

Emergent Wetland

One emergent wetland is present at the northwest end of the BSA west of SR 65. This wetland is characterized by the presence of emergent vegetation and perennial hydrology. Typical vegetation in emergent wetlands includes narrowleaf cattail (*Typha angustifolia*), pennyroyal (*Mentha pulegium*), false waterpepper (*Persicaria hydropiperoides*), hardstem bulrush (*Schoenoplectus acutus*), rough cocklebur (*Xanthium strumarium*), and variable flatsedge (*Cyperus difformis*).

Seasonal Wetland

Seasonal wetlands in the BSA lack the plant species identified below as typically occurring in vernal pools. Seasonal wetlands also differ from emergent wetlands, which support similar plant species, because they lack the perennial hydrology of the emergent wetlands (i.e., seasonal wetlands are inundated only during wetter times of year). The seasonal wetlands in the BSA occur in low areas between existing roadways and adjacent development, collecting stormwater and irrigation runoff (e.g., from a car wash on the east side of Stanford Ranch Road). Common herbaceous species found in seasonal wetlands include spike rush (*Eleocharis macrostachya*),

tall flatsedge (*Cyperus eragrostis*), narrowleaf cattail, Bermuda grass (*Cynodon dactylon*), pennyroyal, dallis grass (*Paspalum dilatatum*), curly dock (*Rumex crispus*), Italian ryegrass, brome fescue (*Festuca bromoides*), and hairy willowherb (*Epilobium ciliatum*).

Vernal Pool

Vernal pools are a type of seasonal wetland; however, not all seasonal wetlands are vernal pools. Vernal pools in the BSA were distinguished from areas designated as seasonal wetlands based on their vegetative composition and hydrology. The vegetation in areas identified as vernal pools includes one or more of the following species that are typically found only in vernal pools: coyote thistle (*Eryngium castrense*), doublehorn calicoflower (*Downingia bicornuta* var. *picta*), horned downingia (*Downingia ornatissima* var. *ornatissima*), annual hairgrass (*Deschampsia danthonioides*), smooth goldfields (*Lasthenia glaberrima*), vernal pool buttercup (*Ranunculus bonariensis* var. *trisepalus*), stalked popcornflower (*Plagiobothrys stipitatus* var. *micranthus*), and whitehead navarretia (*Navarretia leucocephala* ssp. *leucocephala*). In terms of hydrology, areas identified as vernal pools exhibited a greater depth of ponding compared to seasonal wetlands and remained inundated for a longer duration than seasonal wetlands. Vernal pools in the BSA are located inside the interchange loops both north and south of SR 65.

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 United States, including wetlands. Waters of the United States 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 USACE with oversight by 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 and cause minimal environmental effect. Nationwide Permits are issued to allow a variety of minor project activities with no more than minimal effects.

Ordinarily, projects that do not meet the criteria for a Nationwide Permit may be permitted under one of USACE's Standard Permits. There are two types of Standard Permits: Individual Permits and Letters of Permission. For Standard Permits, the USACE decision to approve is based on compliance with EPA's Section 404(b)(1) Guidelines (40 CFR § 230) and on whether permit approval is in the public interest. The Guidelines were developed by EPA in conjunction with USACE and allow the discharge of dredged or fill material into the aquatic system (waters of the United States) only if there is no practicable alternative that would have less adverse effects. The Guidelines state that USACE may not issue a permit if a least environmentally damaging practicable alternative to the proposed discharge would have lesser effects on waters of the United States and would not result in 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 Federal Highway Administration (FHWA) or Caltrans as assigned, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds that 1) 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, the Regional Water Quality Control Boards (RWQCBs), and the California Department of Fish and Wildlife (CDFW). California Fish and Game Code (CFG) Sections 1600–1607 require any agency proposing 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 is required. CDFW jurisdictional limits are usually defined by the tops of the stream or lake banks, or by the outer edge of riparian vegetation—whichever is wider. Wetlands under jurisdiction of USACE may or may not be included in the area covered by a Lake or Streambed Alteration Agreement obtained from CDFW.

The RWQCBs were established under the Porter-Cologne 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 that may result in a discharge to waters of the United States. This is most frequently required in tandem with a Section 404 permit request.

Affected Environment

Three types of wetlands were delineated in the BSA, including emergent wetland, seasonal wetland, and vernal pool. Descriptions of each wetland type are provided in the section above. Figure 3 (located at the end of this section) depicts the locations of each wetland type within the BSA.

Environmental Consequences

Construction of the proposed project would result in the placement of permanent fill in 0.121 acre of seasonal wetland habitat along the east side of Stanford Ranch Road and between SR 65 and commercial development along NB SR 65. These wetlands are supported by irrigation runoff from adjacent development and stormwater runoff from the adjacent roadways. Wetlands outside the project limits (permanent and temporary impact areas) could be indirectly affected from the introduction of sediment and construction-related pollutants (e.g., fuel, oil, cement). Avoidance and minimization measures will be implemented during construction to avoid indirect effects to nearby wetlands, including vernal pools.

Mitigation Measures

Implementation of the following mitigation measures as additions to the project to reduce impacts to less-than-significant levels will ensure that the proposed project avoids and minimizes effects on wetlands within and adjacent to the construction area. Additional measures may be agreed upon during the project permitting process.

Measure 1: Install Fencing to Protect Wetland Resources

Prior to construction, the project proponent's contractor will install high-visibility orange construction fencing and/or sediment fencing as appropriate, along the perimeter of the work area near wetlands. The project proponent will ensure that the final construction plans show the locations where fencing will be installed. The plans will also define the fencing installation procedure. The project proponent or contractor (at the discretion of the project proponent) will ensure that the fencing is maintained throughout the duration of the construction period. If the fencing is removed, damaged, or otherwise compromised during the construction period, construction activities will cease until the fencing is repaired or replaced. The project's special provisions package will provide clear language regarding acceptable fencing material and prohibited construction-related activities, vehicle operation, material and equipment storage, and other surface-disturbing activities near wetlands.

Measure 2: Conduct Mandatory Environmental Awareness Training for Construction Personnel

Before any work occurs in the vicinity of wetland resources, including grading and tree removal, the project proponent will retain a qualified biologist to conduct a mandatory contractor/worker environmental awareness training for construction personnel. The awareness training will be provided to all construction personnel (contractors and subcontractors) to brief them on the need to avoid effects to wetlands and federally-listed species habitat (vernal pool fairy shrimp) outside the project footprint and the penalties for not complying with applicable state and federal laws and permit requirements. Proof of this instruction will be submitted to the project proponent and other overseeing agencies, as appropriate.

Measure 3: Retain a Qualified Biologist to Conduct Periodic Monitoring during Construction near Wetland Resources to be Avoided

The project proponent will retain a qualified biologist to conduct periodic monitoring (minimum of one site visit each week) of construction activities that involve ground disturbance adjacent to wetland areas (including within 250 feet of vernal pools) that are identified for avoidance. The

purpose of the monitoring is to ensure that measures identified in this report are properly implemented to avoid and minimize effects on sensitive biological resources and to ensure that the project complies with all applicable permit requirements and agency conditions of approval. The biologist will ensure that exclusion fencing remains in place during construction and that no construction personnel, equipment, or runoff/sediment from the construction area enters wetlands designated for avoidance. The monitor will complete daily logs, and a final monitoring report will be prepared at the end of each construction season that will be submitted to the project proponent and other overseeing agencies (i.e., CDFW, USFWS, and the National Marine Fisheries Service [NMFS]), as appropriate.

Measure 4: Protect Water Quality and Minimize Sedimentation Runoff in Wetlands

The project proponent will comply with all construction site best management practices (BMPs) specified in the Stormwater Pollution Prevention Plan (SWPPP) and any other permit conditions to minimize the introduction of construction-related contaminants and mobilization of sediment in wetlands and other waters in and adjacent to the project area. These BMPs will address soil stabilization, sediment control, wind erosion control, vehicle tracking control, non-stormwater management, and waste management practices. The BMPs will be based on the best conventional and best available technology.

If the proposed project will disturb 1 or more acres, the project proponent will comply with the stormwater quality regulations established under the National Pollutant Discharge Elimination System (NPDES), described in Section 402 of the federal CWA. In California, the NPDES program requires that any construction activity comply with the statewide General Permit, as authorized by the State Water Resources Control Board (State Water Board). The General Permit requires elimination or minimization of non-stormwater discharges from construction sites and development and implementation of an SWPPP for the site. The primary elements of the SWPPP include the following.

- Description of site characteristics—including runoff and streamflow characteristics and soil erosion hazard—and construction procedures.
- Guidelines for proper application of erosion and sediment control BMPs.
- Description of measures to prevent and control toxic materials spills.
- Description of construction site housekeeping practices.

The BMPs will include, but are not limited to, the following.

- Use only equipment in good working order and free of dripping or leaking engine fluids when working in and around drainages and wetlands. Perform all vehicle maintenance at least 200 feet from all wetlands. Conduct any necessary equipment washing where the water cannot flow into drainages or wetlands.
- Develop a Hazardous Material Spill Prevention Control and Countermeasure Plan before construction begins. The plan will include strict onsite handling rules to keep construction

and maintenance materials from entering the river, including procedures related to refueling, operating, storing, and staging construction equipment, as well as preventing and responding to spills. The plan also will identify the parties responsible for monitoring the spill response. During construction, any spills will be cleaned up immediately according to the spill prevention and countermeasure plan.

- Prohibit the following types of materials from being rinsed or washed into the streets, shoulder areas, or gutters: concrete, solvents and adhesives, thinners, paints, fuels, sawdust, dirt, gasoline, asphalt and concrete saw slurry, and heavily chlorinated water.
- Dispose of any surplus concrete rubble, asphalt, or other rubble from construction at a local landfill.
- Prepare and implement an erosion and sediment control plan for the proposed project. The plan will include the provisions and protocols listed below. The SWPPP for the project will detail the applications and type of measures and the allowable exposure of unprotected soils.
 - Make discharge from dewatering operations, if needed, and runoff from disturbed areas conform to the water quality requirements of the waste discharge permit issued by the Central Valley RWQCB.
 - Apply temporary erosion control measures throughout construction of the proposed project that will be removed after the working area is stabilized or as directed by the engineer. Soil exposure will be minimized through use of temporary BMPs, groundcover, and stabilization measures. Exposed dust-producing surfaces will be sprinkled daily, if necessary, until wet; this measure will be controlled to avoid producing runoff. Paved roads will be swept daily following construction activities.
 - Conduct periodic maintenance of erosion and sediment control measures.
 - Plant an appropriate seed mix of native or naturalized species on disturbed areas upon completion of construction.
 - Cover or apply nontoxic soil stabilizers to inactive construction areas (previously graded areas inactive for 10 days or more) that could contribute sediment to waterbodies.
 - Enclose and cover exposed stockpiles of dirt or other loose, granular construction materials that could contribute sediment to waterways. Material stockpiles will be located in nontraffic areas only. Side slopes will not be steeper than 2:1. All stockpile areas will be surrounded by a filter fabric fence and interceptor dike.
 - Contain soil and filter runoff from disturbed areas by berms, vegetated filters, silt fencing, straw wattles, plastic sheeting, catch basins, or other means necessary to prevent the escape of sediment from the disturbed area.
 - Use other temporary erosion control measures (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and

temporary revegetation or other ground cover) to control erosion from disturbed areas as necessary.

- Avoid earth or organic material from being deposited or placed where it may be directly carried into nearby wetlands or other waters.

The project proponent also will obtain a Section 401 water quality certification from the Central Valley RWQCB that may contain additional BMPs and water quality measures to ensure the protection of water quality.

Measure 5: Compensate for Permanent Impacts on Wetlands

To compensate for permanent fill of seasonal wetland, the project proponent will purchase credits at an approved mitigation bank to ensure no net loss of wetland functions and values. Mitigation banks with service areas for Placer County include Laguna Terrace East Conservation Bank, Twin Cities Conservation Bank and Preserve, Toad Hill Ranch Mitigation Bank, and Western Placer Schools Conservation Bank. The minimum wetland compensation ratio will be 1:1 (1 acre of wetland habitat credit for every 1 acre of impact) to ensure no net loss of wetland habitat functions and values.

The project proponent will also implement the conditions and requirements of state and federal permits that will be obtained for the proposed project.

Plant Species

Regulatory Setting

USFWS and CDFW have regulatory responsibility for the protection of special-status plant species. “Special-status” species are selected for protection because they are rare and/or subject to population and habitat declines. *Special status* is a general term for species that are provided varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as endangered or threatened under the federal Endangered Species Act (FESA) and/or the California Endangered Species Act (CESA). Please see the *Threatened and Endangered Species* section 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 16 USC Section 1531, et seq. See also 50 CFR Part 402. The regulatory requirements for CESA can be found at CFGC Section 2050, et seq. Caltrans projects are also subject to the Native Plant Protection Act, found at CFGC Sections 1900–1913, and CEQA, at California Public Resources Code Sections 21000–21177.

Affected Environment

Information obtained from the California Natural Diversity Database (CNDDDB), CNPS, and USFWS was used to compile a list of the 17 special-status plant species known to occur in the project region (see Table 2 at the end of this section). Land cover types in the BSA contain potential habitat for 10 of these species, although the relatively high level of historical and ongoing disturbance that is present in the BSA detracts from the quality of potential habitat for special-status plant species. No special-status plants were observed during 2012 and 2013 botanical surveys conducted for the overlapping I-80/SR 65 Interchange Improvements Project (ICF International 2014), and none have been previously reported in the BSA (California Department of Fish and Wildlife 2015). These surveys covered all undeveloped areas within the proposed project BSA and coincided with the identification periods of all 17 special-status plant species listed in Table 2.

Environmental Consequences

Special-status plants were not observed in the BSA during appropriately timed botanical surveys; therefore, special-status plants would not be affected by the proposed project.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization or mitigation measures are required for special-status plants because special-status plants are not expected to be present in the BSA.

Animal Species

Regulatory Setting

Many state and federal laws regulate impacts to wildlife. USFWS, NMFS, and CDFW are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with animals not listed or proposed for listing under FESA or CESA. Species listed or proposed for listing as threatened or endangered are discussed in the *Threatened and Endangered Species* section. All other special-status animal species are discussed here, including CDFW fully protected species and species of special concern, and USFWS or NMFS candidate species.

Federal laws and regulations relevant to wildlife include the following.

- National Environmental Policy Act (NEPA)
- Migratory Bird Treaty Act (MBTA)
- Fish and Wildlife Coordination Act

State laws and regulations relevant to wildlife include the following.

- CEQA
- CFGC Sections 1600–1603
- CFGC Sections 4150 and 4152

California Fish and Game Code Sections 3503 and 3503.5 (Protection of Birds and Raptors)

Section 3503 of the CFGC prohibits killing of birds and destruction of bird nests. Section 3503.5 prohibits killing of raptor species and destruction of raptor nests. Typical violations include destruction of active bird and raptor nests as a result of tree removal, and failure of nesting attempts (loss of eggs or young) as a result of disturbance of nesting pairs caused by nearby human activity.

California Fish and Game Code Sections 3511, 3513, 4700, 5050, and 5515 (Fully Protected Species)

CFGC Sections 3511, 3513, 4700, 5050 and 5515 pertain to fully protected wildlife species (birds in Sections 3511 and 3513, mammals in Section 4700, reptiles and amphibians in Section 5050, and fish in Section 5515) and strictly prohibit take of these species. CDFW cannot issue a take permit for fully protected species, except under narrow conditions for scientific research or the protection of livestock, or if a natural community conservation plan has been adopted. Specifically, Section 3513 prohibits any take or possession of birds designated by the MBTA as migratory nongame birds except as allowed by federal rules and regulations pursuant to the MBTA.

Affected Environment

Based on a review of the CNDDDB search results, the USFWS list of endangered, threatened, and proposed species within the project region, and species' distribution and habitat data, 26 special-status wildlife species were identified as having the potential to occur in the project region (see Table 3 located at the end of this section). After completion of the field survey, the biologists determined that 24 of the 26 species would not occur in the BSA because the area lacks suitable habitat or is outside the species' known range. An explanation for the absence of each of these species from the BSA is provided in Table 3. Potential habitat is present in the BSA for the remaining two species listed below.

- Vernal pool fairy shrimp (*Branchinecta lynchi*)
- Purple martin (*Progne subis*)

Vernal pool fairy shrimp is discussed below under *Threatened and Endangered Species*.

Purple martin is a state species of special concern and is protected during its nesting season under the MBTA and CFGC Section 3503.5. Purple martin can be found throughout nearly the entire United States east of the Rocky Mountains. The once widespread Central Valley nesting population is now restricted to a bridge-nesting population in the Sacramento region. Since 2004, this population has declined from 173 pairs to 70 pairs in 2009, a 60 percent decrease (Airola and Kopp 2009). The Sacramento area martin population includes one Placer County breeding pair first documented in 2007 (Kopp and Airola 2007). The purple martin is an early spring migrant from its wintering grounds in South America. Generally, purple martins inhabit open areas with an open water source nearby. Martins adapt well in and around people but are out-competed by starlings and sparrows in urban areas. Purple martins are colonial cavity nesters in abandoned woodpecker holes, human-made nest boxes, or cavities in other structures such as bridges and

overpasses. Once established at a nest location, martins usually come back to the same site every year.

The only known nesting occurrence for purple martins in Placer County is from the East Roseville Viaduct located approximately 1.0 mile south of the Galleria Boulevard/Stanford Ranch Road/SR 65 interchange. Only one breeding pair has been previously documented—in a weep hole on the underside of the viaduct in 2007, in 2008, and in 2012. No purple martins were observed nesting in the East Roseville Viaduct or other nearby bridges during breeding surveys conducted in 2013 and 2014 (Airola pers. comm.).

Suitable nesting habitat (weep holes and associated chambers) for purple martins is present within weep holes, and associated bridge chambers, on the existing SR 65 overpass structure at Galleria Boulevard/Stanford Ranch Road.

Vegetation along existing roadways in the BSA, including landscaped areas, provide potential tree, shrub, and ground nesting habitat for other non-special-status migratory birds. Swallows and other non-special-status birds have the potential to nest on the existing overpass. Although these species are not considered special-status wildlife species, their occupied nests and eggs are protected by CFGC Sections 3503 and 3503.5 and the MBTA.

Environmental Consequences

Project activities on the existing SR 65 overpass at Galleria Boulevard/Stanford Ranch Road are limited to minor paving and restriping. No effects to the underside of the overpass structure are anticipated; therefore, the proposed project will not impact purple martin or other bridge-nesting migratory birds.

Construction activities that occur during the nesting season of migratory birds (generally February 1 through August 31) and disturb nesting substrate (trees, shrubs, and grasses) for migratory birds could remove active nests. Removal of nests or construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. Disturbance or loss of migratory bird eggs, young, or adults would violate the MBTA and CFGC.

Mitigation Measures

Implementation of the following mitigation measure as an addition to the project to reduce impacts to less-than-significant levels will avoid direct impacts and minimize indirect impacts on nesting migratory birds, and will avoid violation of the MBTA and the CFGC.

Measure 7: Conduct Vegetation Removal during the Non-Breeding Season and Conduct Pre-Construction Surveys for Nesting Migratory Birds

Where vegetation removal is required to construct project features, the project proponent will conduct this activity during the non-breeding season for migratory birds (generally between September 1 and February 28), to the extent feasible.

If construction activities (including vegetation removal) cannot be confined to the non-breeding season, the project proponent will retain a qualified wildlife biologist with knowledge of the

relevant species to conduct a nesting survey before the start of construction. Surveys will include a search of all trees, shrubs, wetlands, and grassland vegetation that provide suitable nesting habitat in the construction area. All vegetation within a 100-foot radius around the construction area will be surveyed for nesting migratory birds. The survey will be conducted within 10 days prior to construction and/or vegetation removal during each phase of the project. If no active nests are detected during these surveys, no additional measures are required.

If an active nest is found in the survey area, a no-disturbance buffer will be established around the nest site to avoid disturbance or destruction of the nest until the end of the breeding season (August 31) or until after a qualified wildlife biologist determines that the young have fledged and moved out of the project area (this date varies by species). The extent of these buffers will be determined by the biologist in coordination with USFWS and CDFW, and will depend on the level of construction disturbance, line-of-sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers. Suitable buffer distances may vary between species.

Threatened and Endangered Species

Regulatory Setting

The primary federal law protecting threatened and endangered species is FESA (16 USC § 1531 et seq.). See also 50 CFR Part 402. This act and later amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of the FESA, federal agencies, such as the FHWA, are required to consult with USFWS and NMFS 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 the FESA defines *take* as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct.”

California has enacted a similar law at the state level, CESA (CFGC § 2050 et seq.). CESA emphasizes early consultation to avoid potential impacts on rare, endangered, and threatened species and to develop appropriate planning to offset project-caused losses of listed species populations and their essential habitats. CDFW is the agency responsible for implementing CESA. CFGC Section 2081 prohibits take of any species determined to be an endangered species or a threatened species. *Take* is defined in CFGC Section 86 as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” CESA allows take incidental to otherwise lawful development projects; for these actions, CDFW issues an incidental take permit. For species listed under both FESA and CESA requiring a Biological Opinion under Section 7 of the FESA, CDFW also may authorize impacts on CESA species by issuing a Consistency Determination under CFGC Section 2080.1.

Affected Environment

Vernal pool fairy shrimp is a federally listed threatened species. The species is found from Shasta County in the north throughout the Central Valley, and west to the central Coast Ranges, at elevations of 30 to 4,000 feet. Additional populations have been reported from the Agate Desert region of Oregon near Medford; and disjunct populations occur in San Luis Obispo, Santa Barbara, and Riverside Counties. However, most known locations are in the Sacramento and San Joaquin Valleys and along the eastern margin of the central Coast Ranges (Eng et al. 1990:255–258).

Vernal pool fairy shrimp inhabit vernal pools that form in depressions, usually in grassland habitats (Eng et al. 1990:255–258). Pools must remain inundated long enough for the species to complete its life cycle. Vernal pool fairy shrimp has the shortest time of fairy shrimp species to reach sexual maturity, with a minimum of 18 days (Helm 1998:132). Vernal pool fairy shrimp also occur in other wetlands that provide habitat similar to vernal pools, such as alkaline rain pools, ephemeral drainages, rock outcrop pools, ditches, stream oxbows, stock ponds, vernal swales, and some seasonal wetlands (Helm 1998:137). Occupied wetlands range in size from as small as several square feet to more than 10 acres. Vernal pool fairy shrimp and other fairy shrimp have been observed in artificial depressions and drainages where water ponds for a sufficient duration (Helm 1998:134–138). Examples of such areas include roadside ditches and ruts left behind by off-road vehicles or heavy equipment. Soil compaction from construction activity can sometimes create an artificial hardpan, or restrictive layer, which allows water to pond and form suitable habitat for vernal pool fairy shrimp.

The proposed project is within the current range of vernal pool fairy shrimp. Based on the *Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon* (U.S. Fish and Wildlife Service 2005), the BSA lies within the Southeastern Sacramento Valley vernal pool region but is not within the Western Placer County core area or within designated critical habitat (70 Federal Register [FR] 46924, August 11, 2005). Vernal pools within the BSA represent potential habitat for vernal pool fairy shrimp and are located within the NB and SB off-ramp loops from SR 65 to Galleria Boulevard and Stanford Ranch Road.

Three previously documented occurrences for vernal pool fairy shrimp are approximately 1 mile northwest of the BSA. These records are for natural and created vernal pools located west of SR 65 within the Highland Reserve South Open Space Areas (California Department of Fish and Wildlife 2015).

Environmental Consequences

Based on the lack of survey data for the BSA and because several records for vernal pool fairy shrimp have been documented within 1 mile of the proposed project, it was determined that vernal pool fairy shrimp may occur in suitable habitat (vernal pools) within the BSA. For purposes of this impact analysis, vernal pools in the BSA that support suitable habitat characteristics are presumed to be occupied by vernal pool fairy shrimp. Seasonal wetlands in the BSA are not considered habitat for vernal pool fairy shrimp because they are predominantly

associated with irrigation runoff and, although they can remain saturated for extended periods, they typically do not pond water because they drain to upland areas or to stormwater drains.

Roadway improvements are proposed at the off-ramp terminus from SR 65 NB to Galleria Boulevard; however, no direct impacts to vernal pools within the off-ramp loop are anticipated. Activities on the ramp consist primarily of roadway resurfacing with minor ground disturbance at the connection with Galleria Boulevard/Stanford Ranch Road. Ground disturbance will occur approximately 100 feet from vernal pool habitat, which is not expected to alter the hydrology of these pools because they receive water from direct precipitation and runoff from the adjacent roadway. However, there is a potential for these habitats to be indirectly affected by the introduction of sediment and construction-related pollutants (e.g., fuel, oil, cement).

Mitigation Measures

The following mitigation measures described below as additions to the project to reduce impacts to less-than-significant levels for vernal pool fairy shrimp will be implemented during construction to avoid effects on vernal pools located within 250 feet of proposed ground disturbance.

Measure 1: Install Fencing to Protect Wetland Resources

The full text of this measure is above.

Measure 2: Conduct Mandatory Environmental Awareness Training for Construction Personnel

The full text of this measure is above.

Measure 3: Retain a Qualified Biologist to Conduct Periodic Monitoring during Construction near Wetland Resources to be Avoided

The full text of this measure is above.

Measure 4: Protect Water Quality and Minimize Sedimentation Runoff in Wetlands

The full text of this measure is above.

Measure 6: Avoid Potential Indirect Impacts on Vernal Pool Habitat

The following avoidance and minimization efforts will be implemented prior to and during construction to protect vernal pool habitat outside the project footprint.

- Ground disturbance within 250 feet of suitable vernal pool fairy shrimp habitat (i.e., vernal pools) will be avoided from the first day of the first significant rain (1 inch or greater) until June 1, or until suitable wetlands remain dry for 72 hours and no significant rain is forecast on the day of such ground disturbance.
- Consistent with Measure 1 above, a qualified biologist will guide the installation of exclusion fencing prior to the start of ground-disturbing activities (including staging and grading). The exclusion fencing will be installed along the edge of the construction limits and in a manner that minimizes disturbance of adjacent wetlands. The exclusion fencing will consist of orange construction barrier and erosion control fencing or combination fencing, and will be installed by the project proponent or its construction contractor.

Protected Trees

Regulatory Setting

City of Roseville Tree Preservation Ordinance

Chapter 19.66 (Tree Preservation) of the Roseville Municipal Code includes regulations controlling the removal and preservation of trees within the city of Roseville. A tree permit is required to conduct specific work or regulated activities within the protected zone of a protected tree or to remove a protected tree. A protected tree is defined in the Roseville Municipal Code as a native oak tree equal to or greater than 6 inches diameter at breast height (dbh), measured as a total of a single trunk or multiple trunks. The protected zone is demarcated as the largest radius of the circle formed by the protected tree's dripline plus 1 foot; the radius is measured as the distance from the base of the tree trunk to the greatest extent of the tree's dripline (the furthest horizontal extent of branches).

Under the ordinance, native oaks are defined as valley oaks, blue oaks, interior live oaks, and their hybrids. Tree permit conditions include compensation for work conducted within the protected zone of protected trees. Compensation may consist of a combination of planting replacement trees, relocating trees that would be removed, implementing a revegetation plan, or paying an in-lieu mitigation fee. An arborist survey will be conducted as part of the permitting process to identify oak trees that meet the City's definition of a protected tree.

City of Rocklin Oak Tree Preservation Ordinance and Guidelines

The City of Rocklin regulates the removal of native oak trees under its Oak Tree Preservation Ordinance and Oak Tree Preservation Guidelines (Rocklin Municipal Code § 17.77.100). A permit is required for the removal of native oaks with a dbh of 6 inches or more; for trees with multiple trunks, this size requirement must be met by the measurement of the largest trunk. Native oaks with a dbh of 24 inches or greater are considered heritage trees. Mitigation for the removal of protected trees may consist of onsite or offsite replanting of approved replacement oak trees, or a contribution to the Rocklin Oak Tree Preservation Fund. Additionally, oak trees that will be preserved during project construction must be protected prior to grading activities by installing fencing that is at least 4 feet high at a distance of 3 feet outside the dripline. The fencing must be maintained for the duration of project construction. An arborist survey will be conducted as part of the permitting process to identify oak trees that are subject to the preservation ordinance.

Affected Environment

The BSA contains several native oak trees subject to regulation under the City of Rocklin's and City of Roseville's tree preservation ordinances, located in annual grassland and disturbed/graded cover types east and west of SR 65 at the south end of the BSA.

Environmental Consequences

None of the native oak trees in the BSA would be directly affected by proposed project. One mature valley oak tree is located adjacent to the temporary impact area associated with roadway

improvements and equipment staging along the east side of the SR 65 NB off-ramp to Stanford Ranch Road and could be indirectly affected during project construction. The tree is located in the city of Rocklin.

Mitigation Measures

Implementation of the following mitigation measure as an addition to the project to reduce impacts to less-than-significant levels will avoid direct impacts and minimize indirect impacts on a protected valley oak tree, and will avoid violation of the City of Rocklin Oak Tree Preservation Ordinance and Oak Tree Preservation Guidelines.

Measure 8: Install Fencing and/or Flagging to Protect Native Oak Tree

Prior to construction, the project proponent's contractor will install fencing that is at least 4 feet high at a distance of at least 3 feet outside the dripline along the perimeter of the work area near the valley oak tree located adjacent to the temporary impact area along SR 65 NB at the south end of the BSA. The oak tree protection measures will be completed in conjunction with Measure 1 (*Install Fencing to Protect Wetland Resources*). The project proponent will ensure that the final construction plans show the location of where oak tree fencing will be installed. The project proponent or contractor (at the discretion of the project proponent) will ensure that the fencing is maintained throughout the duration of the construction period. If the fencing is removed, damaged, or otherwise compromised during the construction period, construction activities will cease until the fencing is repaired or replaced.

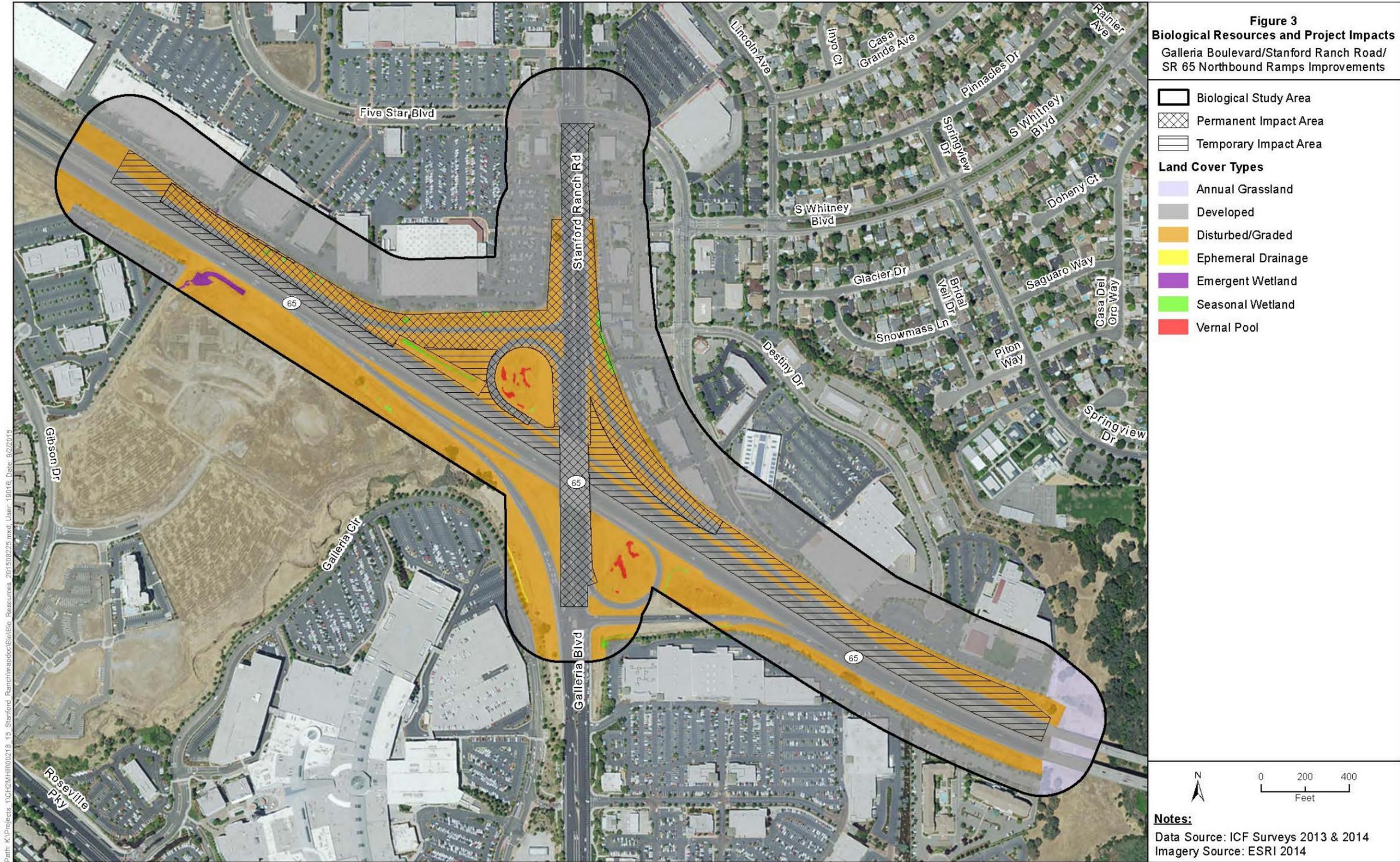


Table 2. Special-Status Plant Species Identified as Having the Potential to Occur in the Project Region

| Common Name Scientific Name | Status ^a | General Habitat Description | Blooming Period | Habitat Present/Absent | Rationale |
|---|---------------------|--|-----------------|------------------------|--|
| | Federal/State/CRPR | | | | |
| California balsamroot (<i>Balsamorhiza macrolepis</i>) | -/-/1B.2 | Sometimes on serpentine soils in chaparral, cismontane woodland, valley and foothill grassland; 295–5,101 feet | March–June | Present | Potential habitat present but not observed during surveys within blooming period. No serpentine soils present. |
| Stebbin's morning-glory (<i>Calystegia stebbinsii</i>) | E/E/1B.1 | Serpentine or gabbro soils in chaparral openings, cismontane woodland; 606–3,576 feet | April–July | Absent | No chaparral or woodland habitats present and no serpentine soils mapped within the BSA. |
| Pine Hill ceanothus (<i>Ceanothus roderickii</i>) | E/R/1B.2 | Serpentine or gabbro soils in chaparral or cismontane woodland; 803–2,066 feet | April–June | Absent | No chaparral or woodland habitats present and no serpentine soils mapped within the BSA. |
| Hispid bird's-beak (<i>Chloropyron molle</i> ssp. <i>hispidum</i>) | -/-/1B.1 | Meadow and seeps, valley and foothill grassland, playa, on alkaline soils; 3–508 feet | June–September | Absent | Microhabitat requirements (i.e., alkaline soils) not met in the BSA. |
| Brandegee's clarkia (<i>Clarkia biloba</i> ssp. <i>brandegeae</i>) | -/-/4.2 | Chaparral, cismontane woodland, lower coniferous forest, often on roadcuts; 246–3,001 feet | May–July | Absent | No chaparral, woodland, or conifer habitats present within the BSA. |
| Dwarf downingia (<i>Downingia pusilla</i>) | -/-/2.2 | Vernal pools and mesic valley and foothill grasslands; below 1,459 feet | March–May | Present | Potential habitat present but not observed during surveys within blooming period. |
| Stinkbells (<i>Fritillaria agrestis</i>) | -/-/4.2 | Chaparral, cismontane woodland, pinyon-juniper woodland, valley and foothill grassland, on clay, sometimes serpentinite substrate; 33–5,101 feet | March–June | Present | Potential habitat present but not observed during surveys within blooming period. No serpentine soils present. |
| El Dorado bedstraw (<i>Galium californicum</i> ssp. <i>sierrae</i>) | E/R/1B.2 | On gabbro soils in chaparral, cismontane woodland, lower montane coniferous forest; 328–1,919 feet | May–June | Absent | No chaparral, woodland, or conifer habitats present within the BSA. |
| Boggs Lake hedge-hyssop (<i>Gratiola heterosepala</i>) | -/E/1B.2 | Clay soils in areas of shallow water, lake margins of swamps and marshes, vernal pool margins; 33–7,791 feet | April–August | Present | Potential habitat present but not observed during surveys within blooming period. |
| Ahart's dwarf rush (<i>Juncus leiospermus</i> var. <i>ahartii</i>) | -/-/1B.2 | Wet areas in valley and foothill grassland, vernal pool margins; 98–751 feet | March–May | Present | Potential habitat present but not observed during surveys within blooming period. |
| Red Bluff dwarf rush (<i>Juncus leiospermus</i> var. <i>leiospermus</i>) | -/-/1B.1 | Seasonally wet areas in chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, vernal pools; 115–4,101 feet | March–May | Present | Potential habitat present but not observed during surveys within blooming period. |

| Common Name Scientific Name | Status ^a | General Habitat Description | Blooming Period | Habitat Present/Absent | Rationale |
|--|---------------------|---|-----------------|------------------------|---|
| | Federal/State/CRPR | | | | |
| Legenere (<i>Legenere limosa</i>) | —/—/1B.1 | Deep, seasonally wet habitats such as vernal pools, ditches, marsh edges, and river banks; below 2,887 feet | April–June | Present | Potential habitat present but not observed during surveys within blooming period. |
| Pincushion navarretia (<i>Navarretia myersii</i> ssp. <i>myersii</i>) | —/—/1B.1 | Edges of vernal pools; 66–1,083 feet | April–May | Present | Potential habitat present but not observed during surveys within blooming period. |
| Sacramento Orcutt grass (<i>Orcuttia viscida</i>) | E/E/1B.1 | Vernal pools; 98–328 feet | April–July | Present | Potential habitat present but not observed during surveys within blooming period. |
| Layne's butterweed (<i>Packera layneae</i>) | T/R/1B.2 | Rocky serpentinite or gabbro soils in chaparral and foothill woodland; 656–3,281 feet | April–August | Absent | No chaparral or woodland habitats and no serpentine or gabbro soils present within the BSA. |
| Tahoe yellow cress (<i>Rorippa subumbellata</i>) | C/E/1B.1 | Lower montane coniferous forest, meadows and seeps, on decomposed granitic beaches; 6,217–6,233 feet | May–September | Absent | No conifer forest habitats and no decomposed granite present within the BSA. |
| Sanford's arrowhead (<i>Sagittaria sanfordii</i>) | —/—/1B.2 | Freshwater marshes, sloughs, canals, and other slow-moving water habitats; below 2,132 feet | May–October | Present | Potential habitat present but not observed during surveys within blooming period. |

^a Status explanations:

Federal

- E = Listed as endangered under FESA.
- T = Listed as threatened under FESA.
- C = Species for which USFWS has on file sufficient information on biological vulnerability and threat(s) to support issuance of a proposed rule to list, but issuance of the proposed rule is precluded.
- = No listing status.

CRPR

- 1B = List 1B species: rare, threatened, or endangered in California and elsewhere.
- 2 = List 2 species: rare, threatened, or endangered in California but more common elsewhere.
- 4 = List 4 species: limited distribution; species on a watch list
- .1 = Seriously endangered in California (over 80% of occurrences threatened—high degree and immediacy of threat).
- .2 = Fairly endangered in California (20–80% of occurrences threatened).
- * = presumed extirpated in that county.

State

- E = Listed as endangered under CESA.
- R = Listed as rare under the CESA. This category is no longer used for newly listed plants, but some plants previously listed as rare retain this designation.
- = No listing status.

Note: In March, 2010, California Department of Fish and Game (now CDFW) changed the name of “CNPS List” or “CNPS Ranks” to “California Rare Plant Ranks (CRPR).” This was done to reduce confusion over the fact that CNPS and CDFW jointly manage the Rare Plant Status Review groups (300+ botanical experts from government, academia, nongovernmental organizations, and the private sector) and that the rank assignments are the product of a collaborative effort and not solely a CNPS assignment.

Table 3. Special-Status Wildlife and Fish Known or with Potential to Occur in the Project Region

| Common Name Scientific Name | Legal Status (Federal/State/Other) | General Habitat Description | Habitat Present/Absent | Rationale |
|---|---|---|-----------------------------------|---|
| Invertebrates | | | | |
| Vernal pool fairy shrimp (<i>Branchinecta lynchi</i>) | T/- | Found in Central Valley, central and south Coast Ranges from Tehama County to Santa Barbara County; isolated populations also in Riverside County; common in vernal pools; also found in sandstone rock outcrop pools. | Habitat Present | Potential habitat is present in vernal pools within the BSA. |
| Vernal pool tadpole shrimp (<i>Lepidurus packardii</i>) | E/- | Found from Shasta County south to Merced County; occurs in vernal pools and ephemeral stock ponds. | Absent | Vernal pools within the BSA are small and shallow features that are unlikely to support vernal pool tadpole shrimp. |
| Valley elderberry longhorn beetle (<i>Desmocerus californicus dimorphus</i>) | T/- | Streamside habitats below 3,000 feet throughout the Central Valley; occurs in riparian and oak savanna habitats with elderberry shrubs; elderberries are the host plant. | Absent | No elderberry shrub (host plant) are present within the BSA. |
| Amphibians | | | | |
| California red-legged frog (<i>Rana aurora draytonii</i>) | T/SSC | Found along the coast and coastal mountain ranges of California from Marin County to San Diego County and in the Sierra Nevada from Tehama County to Fresno County; occurs in permanent and semipermanent aquatic habitats, such as creeks and coldwater ponds, with emergent and submergent vegetation; may estivate in rodent burrows or cracks during dry periods. | Absent | No suitable perennial aquatic habitat is present within the BSA. |
| Western spadefoot (<i>Spea hammondi</i>) | -/SSC | Seasonal wetlands such as vernal pools and stock ponds in annual grasslands and oak woodlands within the Sierra Nevada foothills, Central Valley, and Coast Ranges. | Absent | Potential aquatic habitat (vernal pools) is present in the SR 65 off-ramp loops in the BSA; however, these pools are surrounded by developed areas that would not provide sufficient upland habitat to support western spadefoot. |

| Common Name Scientific Name | Legal Status (Federal/State/Other) | General Habitat Description | Habitat Present/Absent | Rationale |
|--|---------------------------------------|--|---------------------------|---|
| Reptiles | | | | |
| Giant garter snake (<i>Thamnophis couchi gigas</i>) | T/T/- | Sloughs, canals, low-gradient streams, and freshwater marsh habitats with a prey base of small fish and amphibians; also found in irrigation ditches and rice fields; requires grassy banks and emergent vegetation for basking and areas of high ground protected from flooding during winter. | Absent | No suitable aquatic habitat is present in the BSA. |
| Pacific pond turtle (<i>Actinemys marmorata</i>) | -/SSC | Occurs throughout California west of the Sierra-Cascade crest; found from sea level to 6,000 feet; does not occur in desert regions except for along the Mojave River and its tributaries; occupies ponds, marshes, rivers, streams, and irrigation canals with muddy or rocky bottoms and with watercress, cattails, water lilies, or other aquatic vegetation in woodlands, grasslands, and open forests. | Absent | No suitable aquatic habitat is present in the BSA. |
| Birds | | | | |
| Bank swallow (<i>Riparia riparia</i>) | -/T | Occurs along the Sacramento River from Tehama County to Sacramento County, along the Feather and lower American Rivers, in the Owens Valley; and in the plains east of the Cascade Range in Modoc, Lassen, and northern Siskiyou Counties. Small populations near the coast from San Francisco County to Monterey County. Nests in bluffs or banks, usually adjacent to water, where the soil consists of sand or sandy loam, along streams, coastal bluffs, and sand/gravel pits. | Absent | No suitable river or stream eroded bank habitat is present in the BSA. |
| Burrowing owl (<i>Athene cunicularia hypugaea</i>) | -/SSC | Lowlands throughout California, including the Central Valley, northeastern plateau, southeastern deserts, and coastal areas; rare along south coast; level, open, dry, heavily grazed or low stature grassland or desert vegetation with available burrows. | Absent | Disturbed areas of grassland along existing roadways in the BSA are surrounded by development and do not provide suitable nesting habitat for burrowing owls. |

| Common Name Scientific Name | Legal Status (Federal/State/Other) | General Habitat Description | Habitat Present/Absent | Rationale |
|---|---|---|-----------------------------------|---|
| California black rail (<i>Laterallus jamaicensis coturniculus</i>) | -/T, FP | Permanent resident in the San Francisco Bay and eastward through the Delta into Sacramento and San Joaquin Counties; small populations in Marin, Santa Cruz, San Luis Obispo, Orange, Riverside, and Imperial Counties; tidal salt marshes associated with heavy growth of pickleweed; also occurs in brackish marshes or freshwater marshes at low elevations. Recently discovered northern Sierra Nevada foothill population occupies shallow, densely vegetated freshwater wetlands. | Absent | No suitable freshwater marsh habitat is present within the BSA. |
| Northern harrier (<i>Circus cyaneus</i>) | -/SSC | Occurs in grasslands, meadows, marshes, and seasonal and agricultural wetlands throughout lowland California. | Absent | Disturbed areas of grassland along existing roadways in the BSA are surrounded by development, are frequently mowed, and do not provide suitable nesting habitat for harriers. |
| Osprey (<i>Pandion haliaetus</i>) | -/SSC | Nests in snags, trees, or utility poles near the ocean, large lakes, or rivers with abundant fish populations. | Absent | No suitable nesting or foraging habitat is present within the BSA. |
| Purple martin (<i>Progne subis</i>) | -/SSC | Nests in abandoned woodpecker holes in oaks, cottonwoods, and other deciduous trees in a variety of wooded and riparian habitats; also nests in vertical drainage holes under elevated freeways and highway. | Habitat Present | Purple martins have been documented to nest in the drain holes within the nearby SR 65 overcrossing at Taylor Road (CDFW 2015). Drain holes on the existing structure are unlikely to support nesting purple martins due to the low clearance at this location. Impacts to nesting martins will be avoided. |

| Common Name Scientific Name | Legal Status (Federal/State/Other) | General Habitat Description | Habitat Present/Absent | Rationale |
|--|---------------------------------------|---|---------------------------|--|
| Swainson's hawk (<i>Buteo swainsoni</i>) | -/T | Lower Sacramento and San Joaquin Valleys, the Klamath Basin, and Butte Valley; highest nesting densities occur near Davis and Woodland, Yolo County; nests in oaks or cottonwoods in or near riparian habitats; forages in grasslands, irrigated pastures, and grain fields. | Absent | Swainson's hawk have been documented to nest approximately 4 miles from the BSA (CDFW 2015); however, the BSA is surrounded by developed areas and no suitable nest trees are present within 0.25 mile of the BSA. Disturbed roadside areas in the BSA are not expected to provide substantial foraging habitat for Swainson's hawk. |
| Tricolored blackbird (<i>Agelaius tricolor</i>) | -/SSC | Permanent resident in the Central Valley from Butte County to Kern County; breeds at scattered coastal locations from Marin County south to San Diego County; and at scattered locations in Lake, Sonoma, and Solano Counties; rare nester in Siskiyou, Modoc, and Lassen Counties; nests in dense colonies in emergent marsh vegetation, such as tules and cattails, or upland sites with blackberries, nettles, thistles, and grainfields; habitat must be large enough to support 50 pairs; probably requires water at or near the nesting colony. | Absent | No suitable nesting substrate is present within the BSA. |
| White-tailed kite (<i>Elanus leucurus</i>) | -/FP | Lowland areas west of Sierra Nevada from the head of the Sacramento Valley south, including coastal valleys and foothills to western San Diego County at the Mexico border; low foothills or valley areas with valley or live oaks, riparian areas, and marshes near open grasslands for foraging. | Absent | No suitable nest trees are present within 0.25 mile of the BSA. |
| Mammals | | | | |
| Pallid bat (<i>Antrozous pallidus</i>) | -/SSC | Occurs throughout California primarily at lower and mid-level elevations in a variety of habitats from desert to coniferous forest. Daytime roosts include rock outcrops, mines, caves, hollow trees, buildings, and bridges. | Absent | No suitable roosting habitat is present within the existing overcrossing structure or within trees in the BSA. |

| Common Name Scientific Name | Legal Status (Federal/State/Other) | General Habitat Description | Habitat Present/Absent | Rationale |
|--|---|---|-----------------------------------|--|
| Silver-haired bat (<i>Lasionycteris noctivagans</i>) | -/SSC | Typically roosts in tree cavities, crevices and under loose bark; may also use leaf litter, buildings, mines, and caves; breeds in coastal and montane coniferous forests, valley foothill and montane riparian habitats; may occur in any habitat during migration. | Absent | No suitable roosting habitat is present within the existing overcrossing structure or within trees in the BSA. |
| Townsend's big-eared bat (<i>Corynorhinus townsendii townsendii</i>) | -/P | Roosts in caves, tunnels, mines, and dark attics of abandoned buildings; very sensitive to disturbances and may abandon a roost after one onsite visit. | Absent | No suitable roosting habitat is present in the BSA. |
| Western red bat (<i>Lasiurus blossevillii</i>) | -/SSC | Found throughout much of California at lower elevations; found primarily in riparian and wooded habitats; occurs at least seasonally in urban areas; day roosts in trees within the foliage; found in fruit orchards and sycamore riparian habitats in the Central Valley. | Absent | No suitable roosting habitat is present within the BSA. |
| Fish | | | | |
| Central Valley steelhead (<i>Oncorhynchus mykiss</i>) | T/- | Sacramento and San Joaquin Rivers and tributary Central Valley streams and rivers below impassable barriers; occurs in well-oxygenated, cool, riverine habitat with water temperatures from 7.8 to 18 degrees (°) Celsius (C); habitat types are riffles, runs, and pools; adults spawn at head of riffles/tails of pools; young rear year-round for 1–4 years before emigrating to the ocean (Moyle 2002). | Absent | No suitable perennial stream habitat is present in the BSA. |
| Central Valley fall-/late fall–run Chinook salmon (<i>Oncorhynchus tshawytscha</i>) | SC/SSC | Sacramento and San Joaquin Rivers and tributary Central Valley streams and rivers below impassable barriers; occurs in well-oxygenated, cool, riverine habitat with water temperatures from 8.0 to 12.5°C; habitat types are riffles, runs, and pools; adults spawn at head of riffles/tails of pools; young rear for several months and emigrate to the ocean before summer (Moyle 2002). | Absent | No suitable perennial stream habitat is present in the BSA. |

| Common Name Scientific Name | Legal Status (Federal/State/Other) | General Habitat Description | Habitat Present/Absent | Rationale |
|---|---|--|-----------------------------------|--|
| Sacramento River winter-run Chinook salmon (<i>Oncorhynchus tshawytscha</i>) | E/E | Mainstem Sacramento River below Keswick Dam (Moyle 2002); occurs in well-oxygenated, cool, riverine habitat with water temperatures from 8.0 to 12.5°C; habitat types are riffles, runs, and pools (Moyle 2002); adults and juveniles migrate in the lower Sacramento River and through the Delta. | Absent | The BSA is not located within the current distribution of this run and no suitable perennial stream habitat is present in the BSA. |
| Central Valley spring-run Chinook salmon (<i>Oncorhynchus tshawytscha</i>) | T/T | Upper Sacramento River, Feather River, and Yuba River and several perennial tributaries of the Sacramento River (Battle, Butte, Clear, Deer, and Mill Creeks); has the same general habitat requirements as winter-run Chinook salmon; coldwater pools are needed for holding adults (Moyle 2002); adults and juveniles migrate in the lower Sacramento River and through the Delta. | Absent | The BSA is not located within the current distribution of this run and no suitable perennial stream habitat is present in the BSA. |
| Delta smelt (<i>Hypomesus transpacificus</i>) | T/E | Found primarily in the Sacramento–San Joaquin Estuary but has been found as far upstream as the mouth of the American River on the Sacramento River and Mossdale on the San Joaquin River; range extends downstream to San Pablo Bay; occurs in estuary habitat in the Delta where fresh and brackish water mix in the salinity range of 2–7 parts per thousand (Moyle 2002). | Absent | The BSA is not located within the current distribution of this species and no suitable perennial stream habitat is present in the BSA. |
| Lahontan cutthroat trout <i>Mylopharodon conocephalus</i> | T/- | Tributary streams in the San Joaquin drainage; large tributary streams in the Sacramento River and the main stem; resides in low to mid-elevation streams and prefer clear, deep pools and runs with slow velocities; also occurs in reservoirs. | Absent | The BSA is not located within the current distribution of this run and no suitable perennial stream habitat is present in the BSA. |

^a **Status explanations:**

Federal

- E = Listed as endangered under FESA.
- T = Listed as threatened under FESA.
- D = Delisted from the FESA.
- = No listing.

State

- E = Listed as endangered under CESA.
- T = Listed as threatened under CESA.
- P = Proposed for listing as threatened or endangered under CESA.
- FP = Fully protected under the CFGC.
- SSC = Species of special concern in California.
- = No listing.

Notes: Absent - no habitat present and no further work needed. Habitat Present - habitat is, or may be present. The species may be present. Present - the species is present. Critical Habitat - project footprint is located within a designated critical habitat.

Climate Change

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

While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change 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 GHG emissions generated by human activity, including carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride, HFC-23 (fluoroform), HFC-134a (1, 1, 1, 2-tetrafluoroethane), and HFC-152a (difluoroethane).

In the United States, the main source of GHG emissions is electricity generation, followed by transportation. In California, however, transportation sources (including passenger cars, light-duty trucks, other trucks, buses, and motorcycles) make up the largest source of GHG-emitting sources. The dominant GHG emitted is CO₂, mostly from fossil fuel combustion.

There are typically two terms used when discussing 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 the effort of planning for and adapting to impacts resulting from climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels)².

There are four primary strategies for reducing 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 and efficiency. To be most effective all four strategies should be pursued cooperatively.³

Regulatory Setting

State

With the passage of several pieces of legislation including State Senate and Assembly Bills and Executive Orders, California launched an innovative and proactive approach to dealing with GHG emissions and climate change.

Assembly Bill (AB) 1493, Pavley, Vehicular Emissions: Greenhouse Gases, 2002: This bill requires the California Air Resources Board (ARB) to develop and implement regulations to

² http://climatechange.transportation.org/ghg_mitigation/

³ http://www.fhwa.dot.gov/environment/climate_change/mitigation/

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

AB 32, Núñez and Pavley, The Global Warming Solutions Act of 2006: AB 32 sets the same overall 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."

EO 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.

EO S-01-07 (January 18, 2007): This order set forth the low carbon fuel standard for California. Under this EO, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by the year 2020.

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

SB 375, Chapter 728, 2008, Sustainable Communities and Climate Protection: This bill requires ARB to set regional emissions reduction targets from passenger vehicles. The Metropolitan Planning Organization for each region must then develop a Sustainable Communities Strategy that integrates transportation, land use, and housing policies to plan for the achievement of the emissions target for their region.

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.

Federal

Although climate change and GHG reduction are a concern at the federal level, currently no regulations or legislation have been enacted specifically addressing GHG emissions reductions and climate change at the project level. Neither EPA nor FHWA has issued explicit guidance or methods to conduct project-level GHG analysis.⁴ FHWA supports the approach that climate change considerations should be integrated throughout the transportation decision-making process, from planning through project development and delivery. Addressing climate change mitigation and adaptation 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. Climate change considerations can be integrated into many

⁴ To date, no national standards have been established regarding mobile source GHGs, nor has EPA established any ambient standards, criteria, or thresholds for GHGs resulting from mobile sources.

planning factors, such as supporting economic vitality and global efficiency, increasing safety and mobility, enhancing the environment, promoting energy conservation, and improving the quality of life.

The four strategies outlined by FHWA to lessen climate change impacts correlate with efforts that the state is undertaking to deal with transportation and climate change. These strategies include improved transportation system efficiency, cleaner fuels, cleaner vehicles, and a reduction in travel activity.

Climate change and its associated effects are being addressed through various efforts at the federal level to improve fuel economy and energy efficiency, such as the “National Clean Car Program” and EO 13514, *Federal Leadership in Environmental, Energy and Economic Performance*.

EO 13514 (October 5, 2009): This order is focused on reducing greenhouse gases internally in federal agency missions, programs and operations, but also direct federal agencies to participate in the Interagency Climate Change Adaptation Task Force, which is engaged in developing a national strategy for adaptation to climate change.

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, 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. 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 2010.⁵

EPA and NHTSA are taking coordinated steps to enable the production of a new generation of clean vehicles with reduced GHG emissions and improved fuel efficiency from on-road vehicles and engines. These next steps include developing the first-ever GHG regulations for heavy-duty engines and vehicles, as well as additional light-duty vehicle GHG regulations.

The final combined standards that made up the first phase of this national program apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012–2016. The standards implemented by this program are expected to reduce GHG emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012–2016).

On August 28, 2012, EPA and NHTSA issued a joint Final Rulemaking to extend the National Program for fuel economy standards to model year 2017–2025 passenger vehicles. Over the

⁵ <http://www.c2es.org/federal/executive/epa/greenhouse-gas-regulation-faq>

lifetime of the model year 2017–2025 standards this program is projected to save approximately 2 billion metric tons of GHG emissions and 4 billion barrels of oil.

The complementary EPA and NHTSA standards that make up the Heavy-Duty National Program apply to combination tractors (semi-trucks), heavy-duty pickup trucks and vans, and vocational vehicles (including buses and refuse or utility trucks). Together, these standards will cut GHG emissions and domestic oil use significantly. This program responds to President Barack Obama’s 2010 request to jointly establish GHG emissions and fuel efficiency standards for the medium- and heavy-duty highway vehicle sector. The agencies estimate that the combined standards will reduce CO₂ emissions by about 270 million metric tons and save about 530 million barrels of oil over the life of model year 2014–2018 heavy-duty vehicles.

Project Analysis

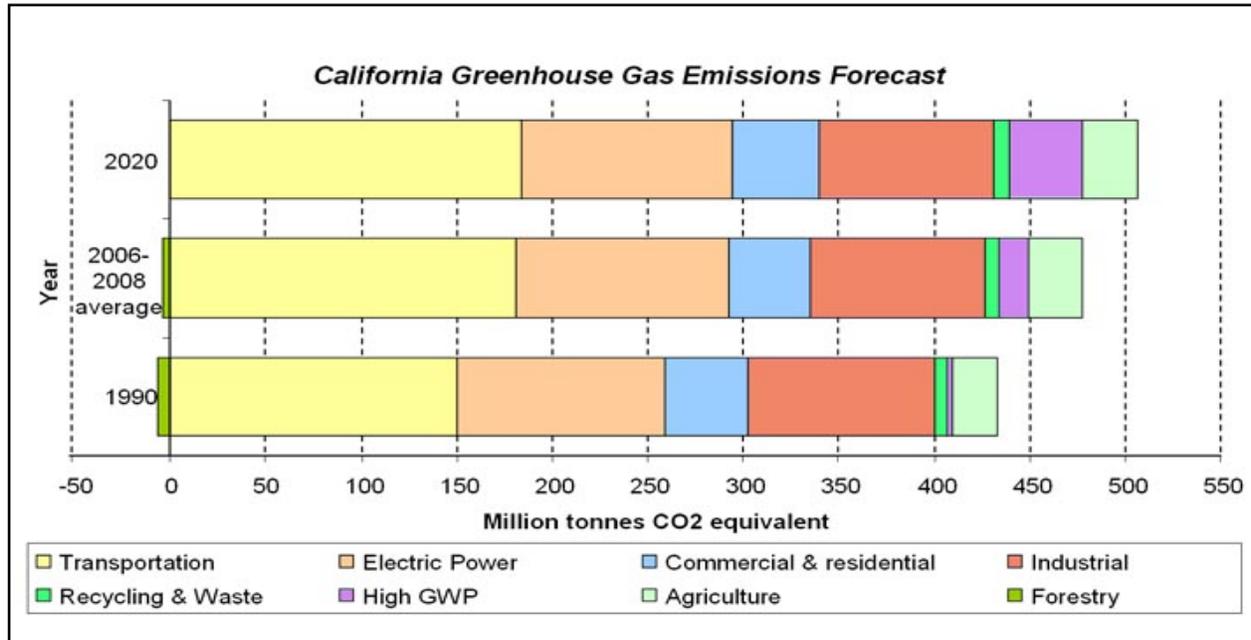
An individual project does not generate enough GHG emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may contribute to a potential impact through its *incremental* change in emissions when combined with the contributions of all other sources of GHG.⁶ In assessing cumulative impacts, it must be determined if a project’s incremental effect is “cumulatively considerable” (CEQA Guidelines § 15064(h)(1) and 15130). To make this determination the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. To gather sufficient information on a global scale of all past, current, and future projects to make this determination is a difficult, if not impossible, task.

The AB 32 Scoping Plan mandated by AB 32 includes the main strategies California will use to reduce GHG emissions. As part of its supporting documentation for the Draft Scoping Plan, the ARB released the GHG inventory for California, which is indicated in Figure 4 (forecast last updated October 28, 2010). The forecast is an estimate of the emissions expected to occur in 2020 if none of the foreseeable measures included in the Scoping Plan were implemented. The base year used for forecasting emissions is the average of statewide emissions in the GHG inventory for 2006, 2007, and 2008.

Caltrans and its parent agency, the Transportation Agency, have taken an active role in addressing GHG emission reduction and climate change. Recognizing that 98 percent of California’s GHG emissions are from the burning of fossil fuels and 40 percent of all human-

⁶ This approach is supported by the Association of Environmental Professionals: *Recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate Change in CEQA Documents* (March 5, 2007), as well as the South Coast Air Quality Management District (Chapter 6: The CEQA Guide, April 2011) and the U.S. Forest Service (Climate Change Considerations in Project Level NEPA Analysis, July 13, 2009).

made GHG emissions are from transportation, Caltrans has created and is implementing the Climate Action Program at Caltrans that was published in December 2006.⁷



Source: <http://www.arb.ca.gov/cc/inventory/data/forecast.htm>

Figure 4: California Greenhouse Gas Forecast

One of the main strategies in Caltrans’ Climate Action Program to reduce GHG emissions is to make California’s transportation system more efficient. The highest levels of CO₂ 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 5 below). To the extent that a project relieves congestion by enhancing operations and improving travel times in high congestion travel corridors, GHG emissions, particularly CO₂, may be reduced.

⁷ Caltrans’ Climate Action Program is located at the following web address: http://www.dot.ca.gov/hq/tpp/offices/ogm/key_reports_files/State_Wide_Strategy/Caltrans_Climate_Action_Program.pdf.

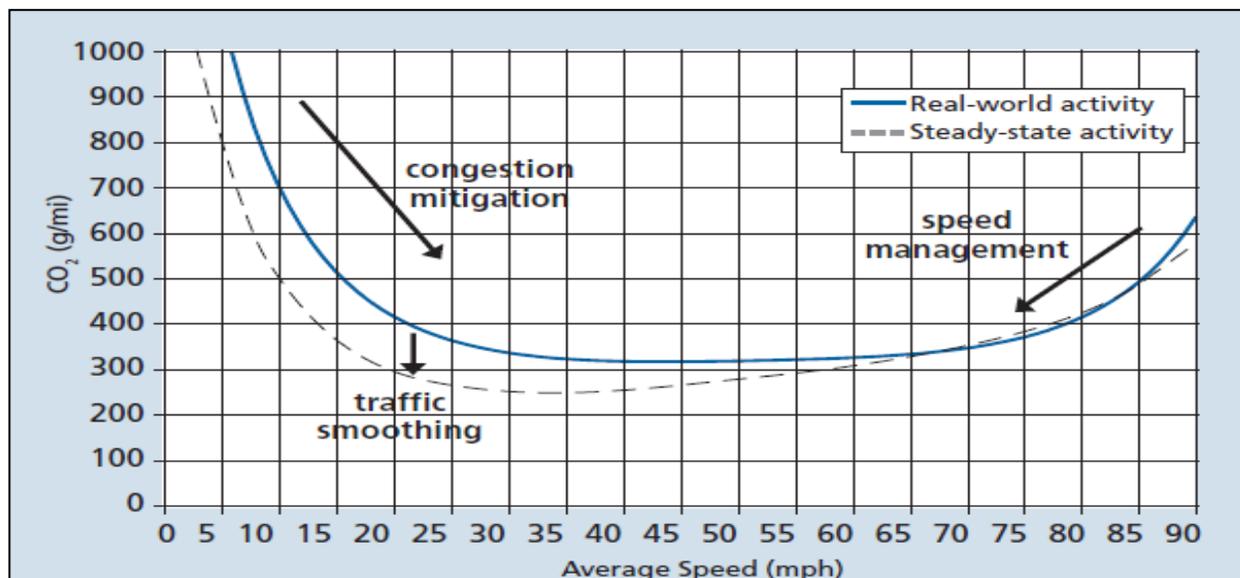


Figure 5: Possible Effect of Traffic Operation Strategies in Reducing On-Road CO₂ Emissions⁸

Potential for Generation of Greenhouse Gas Contaminant Emissions

Operational Emissions

The proposed project would modify the SR 65 NB ramps at the Galleria Boulevard/Stanford Ranch Road interchange as well as reconfigure the lanes along Galleria Boulevard/Stanford Ranch Road. The transportation improvements proposed for the Stanford Ranch Road/SR 65 NB Ramps project are limited to operational improvements for the intersection and ramps rather than significant changes to through capacity. As a result, one set of forecasts were used to analyze operations for the Build and No Build Alternatives and no change in traffic volumes are anticipated between the No Build and Build Alternatives (Fehr & Peers 2015). Caltrans' CT-EMFAC model was used to estimate CO₂ emissions for existing (2012) and design year (2040⁹) conditions and evaluate potential emissions increases related to project implementation. Table 4 summarizes the modeled emissions by scenario, as well as a comparison of Build emissions to existing conditions. Emissions are presented with and without state mandates to reduce GHG emissions from on-road vehicles and transportation fuels.¹⁰

Due to background increases in vehicle miles travelled (VMT) forecasted between years 2012 and 2040, GHG emissions would increase compared to existing conditions. Future year peak period traffic level of service and delay are forecasted to degrade at all six intersections analyzed

⁸ Traffic Congestion and Greenhouse Gases: Matthew Barth and Kanok Boriboonsomsin (TR News 268 May-June 2010) <<http://onlinepubs.trb.org/onlinepubs/trnews/trnews268.pdf>>

⁹ CT-EMFAC only includes vehicle emission rates up to the year 2035, thus project design year (2040) emissions use CT-EMFAC 2035 emission rates.

¹⁰ Actions undertaken by the state will contribute to project-level GHG reductions. The state mandate analysis assumes implementation of Pavley and LCFS. Pavley will improve the efficiency of automobiles and light duty trucks, whereas LCFS will reduce the carbon intensity of diesel and gasoline transportation fuels.

in the project area under the No Build Alternative (Fehr & Peers 2015). The project would expand capacity in these locations, which reduces travel times and upgrades level of service.

Currently, there are no federal or state standards set for CO₂ emissions; therefore, the estimated emissions shown in Table 4 are only useful for a comparison between existing and project conditions. The numbers are not necessarily an accurate reflection of what actual CO₂ emissions would be because CO₂ emissions are dependent on other factors that are not part of the model, such as the fuel mix,¹¹ rate of acceleration, and the aerodynamics and efficiency of the vehicles.

Table 4. Estimated Greenhouse Gas Emissions from Operation of Galleria Boulevard/Stanford Ranch Road/SR 65 Northbound Ramps Improvements Project

| Year | Annual VMT ^a (miles per year) | Emissions without Pavley and LCFS (metric tons per year) | | | Emissions with Pavley and LCFS (metric tons per year) | | |
|-------------------------------|---|---|--------------------|-------------------|--|--------------------|-------------------|
| | | CO ₂ | Other ^b | CO ₂ e | CO ₂ | Other ^a | CO ₂ e |
| 2012 Baseline | 1,785,077,999 | 785,570 | 9,541 | 795,111 | 751,407 | 9,126 | 760,533 |
| 2040 No Build | 2,683,814,939 | 1,176,948 | 14,123 | 1,191,071 | 783,440 | 9,401 | 792,841 |
| 2040 Build | 2,730,447,922 | 1,202,027 | 14,600 | 1,216,627 | 800,028 | 9,717 | 809,745 |
| Comparison to Existing | | | | | | | |
| 2040 Build | 945,369,923 | 416,457 | 5,059 | 421,516 | 48,621 | 591 | 49,212 |
| Comparison to No Build | | | | | | | |
| 2040 Build | 46,632,983 | 25,079 | 477 | 25,556 | 16,588 | 316 | 16,904 |

^a Annual VMT values derived from Daily VMT values in Table 7 multiplied by 347, per ARB methodology (ARB 2008).

^b Includes CH₄, N₂O, and other trace GHGs emissions emitted by typical passenger vehicles (U.S. Environmental Protection Agency 2015).

LCFS = Low Carbon Fuel Standard

Limitations and Uncertainties with Modeling

EMFAC

Although EMFAC can calculate CO₂ emissions from mobile sources, the model does have limitations when it comes to accurately reflecting changes in CO₂ emissions due to impacts on traffic. According to the National Cooperative Highway Research Program report, *Development of a Comprehensive Modal Emission Model* (April 2008) and a 2009 University of California study¹², brief but rapid accelerations, such as those occurring during congestion, can contribute significantly to a vehicle's CO₂ emissions during a typical urban trip. Current emission-factor models are insensitive to the distribution of such modal events (i.e., cruise, acceleration, deceleration, and idling) in the operation of a vehicle and instead estimate emissions by average

¹¹ CT-EMFAC model emission rates are only for direct engine-out CO₂ emissions, not full fuel cycle; fuel cycle emission rates can vary dramatically depending on the amount of additives like ethanol and the source of the fuel components.

¹² Matthew Bartha, Kanok Boriboonsomsin. 2009. *Energy and emissions impacts of a freeway-based dynamic eco-driving system*. Transportation Research Part D: Transport and Environment Volume 14, Issue 6, August 2009, Pages 400–410

trip speed. This limitation creates an uncertainty in the model’s results when compared to the estimated emissions of the various alternatives with baseline in an attempt to determine impacts. Although work by EPA and the CARB is underway on modal-emission models, neither agency has yet approved a modal emissions model that can be used to conduct this more accurate modeling.

CARB is currently not using EMFAC to create its inventory of greenhouse gas emissions. It is unclear why the CARB has made this decision. Their website only states:

REVISION: Both the EMFAC and OFFROAD Models develop CO₂ and CH₄ [methane] emission estimates; however, they are not currently used as the basis for [CARB's] official [greenhouse gas] inventory which is based on fuel usage information.
<http://www.arb.ca.gov/cc/inventory/inventory.htm>. . However, ARB is working towards reconciling the emission estimates from the fuel usage approach and the models.¹³

Other Variables

With the current science, project-level analysis of greenhouse gas emissions has limitations. Although a greenhouse gas analysis is included for this project, there are numerous key greenhouse gas variables that are likely to change dramatically during the design life of the proposed project and would thus dramatically change the projected CO₂ emissions.

First, vehicle fuel economy is increasing. The EPA’s annual report, “Light-Duty Automotive Technology and Fuel Economy Trends: 1975 through 2012 ,”¹⁴ which provides data on the fuel economy and technology characteristics of new light-duty vehicles including cars, minivans, sport utility vehicles, and pickup trucks, confirms that average fuel economy has improved each year beginning in 2005, and is now at a record high. Corporate Average Fuel Economy (CAFE) standards remained the same between model years 1995 and 2003 and subsequently began setting increasingly higher fuel economy standards for future vehicle model years. The EPA estimates that light duty fuel economy rose by 16% from 2007 to 2012. Table 5 shows the increases in required fuel economy standards for cars and trucks between Model Years 2012 and 2025 as available from the National Highway Traffic Safety Administration for the 2012-2016 and 2017-2025 CAFE Standards.

Table 5: Average Required Fuel Economy (mpg)

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2018 | 2020 | 2025 |
|----------------|------|------|------|------|------|-----------|-----------|-----------|
| Passenger Cars | 33.3 | 34.2 | 34.9 | 36.2 | 37.8 | 41.1-41.6 | 44.2-44.8 | 55.3-56.2 |
| Light Trucks | 25.4 | 26 | 26.6 | 27.5 | 28.8 | 29.6-30.0 | 30.6-31.2 | 39.3-40.3 |
| Combined | 29.7 | 30.5 | 31.3 | 32.6 | 34.1 | 36.1-36.5 | 38.3-38.9 | 48.7-49.7 |

Source: EPA 2013, <http://www.epa.gov/fueleconomy/fetrends/1975-2012/420r13001.pdf>

¹³ <http://www.arb.ca.gov/msei/offroad.htm>

¹⁴ <http://www.epa.gov/oms/fetrends.htm>

Second, near zero carbon vehicles will come into the market during the design life of this project. According to the 2013 Annual Energy Outlook (AEO2013):

“LDVs that use diesel, other alternative fuels, hybrid-electric, or all-electric systems play a significant role in meeting more stringent GHG emissions and CAFE standards over the projection period. Sales of such vehicles increase from 20 percent of all new LDV sales in 2011 to 49 percent in 2040 in the AEO2013 Reference case.”¹⁵

The greater percentage of alternative fuel vehicles on the road in the future will reduce overall GHG emissions as compared to scenarios in which vehicle technologies and fuel efficiencies do not change.

Third, California has recently adopted a low-carbon transportation fuel standard in 2009 to reduce the carbon intensity of transportation fuels by 10 percent by 2020. The regulation became effective on January 12, 2010 (codified in title 17, California Code of Regulations, Sections 95480-95490). Beginning January 1, 2011, transportation fuel producers and importers must meet specified average carbon intensity requirements for fuel in each calendar year.

Lastly, driver behavior has been changing as the U.S. economy and oil prices have changed. In its January 2008 report, “Effects of Gasoline Prices on Driving Behavior and Vehicle Market,”¹⁶ the Congressional Budget Office found the following results based on data collected from California: 1) freeway motorists adjust to higher gas prices by making fewer trips and driving more slowly; 2) the market share of sports utility vehicles is declining; and 3) the average prices for larger, less-fuel-efficient models declined from 2003 to 2008 as average prices for the most-fuel-efficient automobiles have risen, showing an increase in demand for the more fuel efficient vehicles. More recent reports from the Energy Information Agency¹⁷ and Bureau of Economic Analysis¹⁸ also show slowing re-growth of vehicle sales in the years since its dramatic drop in 2009 due to the Great Recession as gasoline prices continue to climb to \$4 per gallon and beyond.

Limitations and Uncertainties with Impact Assessment

Taken from p. 5-22 of the National Highway Traffic Safety Administration Final EIS for MY2017-2025 CAFE Standards (July 2012), Figure 6 illustrates how the range of uncertainties in assessing greenhouse gas impacts grows with each step of the analysis:

“Moss and Schneider (2000) characterize the ‘cascade of uncertainty’ in climate change simulations (Figure 6). As indicated in Figure 6, the emission estimates used in this EIS have narrower bands of uncertainty than the global climate effects, which are less uncertain than regional climate change effects. The effects on climate are, in turn, less uncertain than the impacts of climate change on affected resources (such as terrestrial and coastal ecosystems, human health, and other resources [...]) Although the uncertainty bands broaden with each

¹⁵ [http://www.eia.gov/forecasts/aeo/pdf/0383\(2013\).pdf](http://www.eia.gov/forecasts/aeo/pdf/0383(2013).pdf)

¹⁶ <http://www.cbo.gov/ftpdocs/88xx/doc8893/01-14-GasolinePrices.pdf>

¹⁷ http://www.eia.gov/oiaf/aeo/tablebrowser/aeo_query_server/?event=ehExcel.getFile&study=AEO2013®ion=0-0&cases=ref2013-d102312a&table=114-AEO2013&yearFilter=0

¹⁸ Historical Vehicle Sales: www.bea.gov/national/xls/gap_hist.xls

successive step in the analytic chain, all values within the bands are not equally likely; the mid-range values have the highest likelihood.”¹⁹

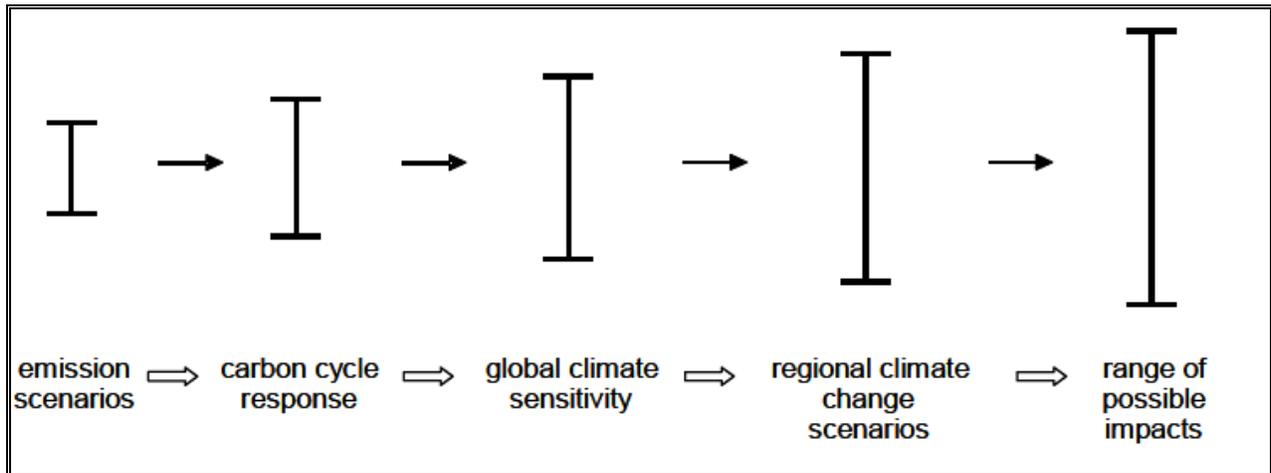


Figure 6: Cascade of Uncertainties

Much of the uncertainty in assessing an individual project’s impact on climate change surrounds the global nature of the climate change. Even assuming that the target of meeting the 1990 levels of emissions is met, there is no regulatory or other framework in place that would allow for a ready assessment of what any modeled increase in CO₂ emissions would mean for climate change given the overall California greenhouse gas emissions inventory of approximately 430 million tons of CO₂ equivalent. This uncertainty only increases when viewed globally. The IPCC has created multiple scenarios to project potential future global greenhouse gas emissions as well as to evaluate potential changes in global temperature, other climate changes, and their effect on human and natural systems. These scenarios vary in terms of the type of economic development, the amount of overall growth, and the steps taken to reduce greenhouse gas emissions. Non-mitigation IPCC scenarios project an increase in global greenhouse gas emissions by 9.7 up to 36.7 billion metric tons CO₂ from 2000 to 2030, which represents an increase of between 25 and 90%.²⁰

The assessment is further complicated by the fact that changes in greenhouse gas emissions can be difficult to attribute to a particular project because the projects often cause shifts in the locale for some type of greenhouse gas emissions, rather than causing “new” greenhouse gas emissions. It is difficult to assess the extent to which any project level increase in CO₂ emissions represents a net global increase, reduction, or no change; there are no models approved by regulatory agencies that operate at the global or even statewide scale.

¹⁹ http://www.nhtsa.gov/staticfiles/rulemaking/pdf/cafe/FINAL_EIS.pdf, page 5-22

²⁰ Intergovernmental Panel on Climate Change (IPCC). February 2007. Climate Change 2007: The Physical Science Basis: Summary for Policy Makers. <http://www.ipcc.ch/SPM2feb07.pdf>.

Construction Emissions

Construction GHG emissions include emissions produced as a result of material processing, emissions produced by onsite construction equipment, and emissions arising from traffic delays due to construction. The Sacramento Metropolitan Air Quality Management District’s Road Construction Emissions Model (Version 7.1.5.1) was used to estimate CO₂ emissions from construction activities. The Road Construction Emissions Model does not include emission factors for CH₄ or N₂O for off-road diesel equipment. Emissions of CH₄ and N₂O from diesel-powered equipment were determined by scaling the CO₂ emissions quantified by the ratio of CH₄/CO₂ (0.000056) and N₂O/CO₂ (0.000025) (Climate Registry 2015).

Table 6 summarizes estimated GHG emissions generated by onsite construction equipment over the 6-month construction period. These emissions would 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 mitigated to some degree by longer intervals between maintenance and rehabilitation events. Measures to reduce construction emissions include maintenance of construction equipment and vehicles, limiting of construction vehicle idling time, and scheduling and routing of construction traffic to reduce engine emissions.

Table 6: Total GHG Emissions from Construction of Project (metric tons)

| Diesel Equipment | | | CO ₂ e |
|------------------|-----------------|------------------|-------------------|
| CO ₂ | CH ₄ | N ₂ O | |
| 497.4 | 0.03 | 0.01 | 503.4 |

CEQA Conclusion

As discussed above, both the 2040 build and no build scenarios show increases in CO₂ emissions over existing levels (Table 4). Nonetheless, there are also limitations with EMFAC/CT-EMFAC and with assessing what a given CO₂ emissions increase means for climate change. Therefore, it is Caltrans 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 determination regarding significance of the project’s direct impact and its contribution on the cumulative scale to climate change. However, Caltrans is firmly committed to implementing measures to help reduce the potential effects of the project. These measures are outlined in the following section.

Greenhouse Gas Reduction Strategies

Caltrans continues to be involved on the Governor’s Climate Action Team as the ARB works to implement EOs S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. Many of the strategies Caltrans is using to help meet the targets in AB 32 come from then-Governor Arnold

Schwarzenegger’s Strategic Growth Plan for California. The Strategic Growth Plan targeted a significant decrease in traffic congestion below 2008 levels and a corresponding reduction in GHG emissions, while accommodating growth in population and the economy. The Strategic Growth Plan relies on a complete systems approach to attain CO₂ reduction goals: system monitoring and evaluation, maintenance and preservation, smart land use and demand management, and operational improvements as shown in Figure 7, The Mobility Pyramid.

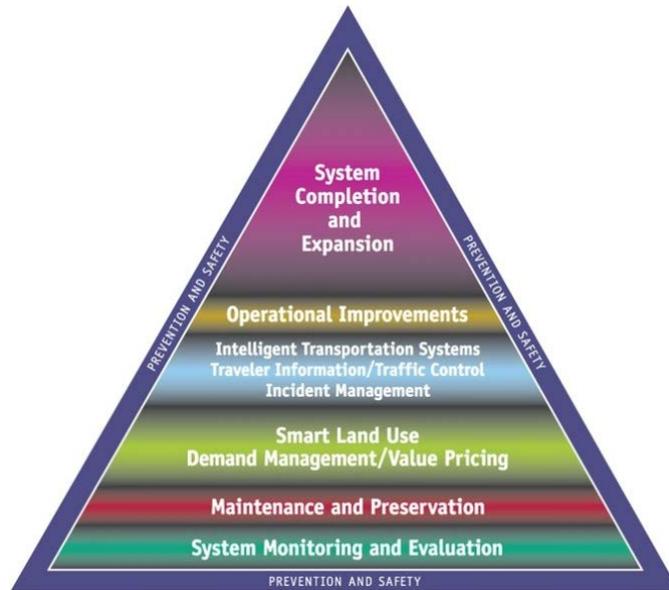


Figure 7: Mobility Pyramid

Caltrans is supporting efforts to reduce vehicle miles travelled by planning and implementing smart land use strategies: job/housing proximity, developing transit-oriented communities, and high-density housing along transit corridors. Caltrans works closely with local jurisdictions on planning activities but does not have local land use planning authority.

Caltrans also assists efforts to improve the energy efficiency of the transportation sector by increasing vehicle fuel economy in new cars and light- and heavy-duty trucks. Caltrans is doing this by supporting ongoing research efforts at universities, by supporting legislative efforts to increase fuel economy, and by participating in the Climate Action Team. It is important to note, however, that control of fuel economy standards is held by the EPA and ARB.

Caltrans is also working toward enhancing the State’s transportation planning process to respond to future challenges. Similar to requirements for regional transportation plans under SB 375 (Steinberg 2008), SB 391(Liu 2009) requires the State’s long-range transportation plan to meet California’s climate change goals under AB 32.

The California Transportation Plan (CTP) is a statewide, long-range transportation plan to meet California’s 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.

The purpose of the CTP is to provide a common policy framework that will guide transportation investments and decisions by all levels of government, the private sector, and other transportation stakeholders. Through this policy framework, the CTP 2040 will identify the statewide transportation system needed to achieve maximum feasible GHG emission reductions while meeting the State’s transportation needs.

Table 7 summarizes departmental and statewide efforts that Caltrans is implementing to reduce GHG emissions. More detailed information about each strategy is included in the Climate Action Program at Caltrans (December 2006).

Table 7. Climate Change/CO₂ Reduction Strategies

| Strategy | Program | Partnership | | Method/ Process | Estimated CO ₂ Savings Million Metric Tons (MMT) | |
|---|--|--------------------------------------|--|--|--|---------------|
| | | Lead | Agency | | 2010 | 2020 |
| Smart Land Use | Intergovernmental Review (IGR) | Caltrans | Local governments | Review and seek to mitigate development proposals | Not Estimated | Not Estimated |
| | Planning Grants | Caltrans | Local and regional agencies & other stakeholders | Competitive selection process | Not Estimated | Not Estimated |
| | Regional Plans and Blueprint Planning | Regional Agencies | Caltrans | Regional plans and application process | .975 | 7.8 |
| Operational Improvements & Intelligent Transportation System (ITS) Deployment | Strategic Growth Plan | Caltrans | Regions | State ITS; Congestion Management Plan | .07 | 2.17 |
| Mainstream Energy & GHG into Plans and Projects | Office of Policy Analysis & Research; Division of Environmental Analysis | Interdepartmental effort | | Policy establishment, guidelines, technical assistance | Not Estimated | Not Estimated |
| Educational & Information Program | Office of Policy Analysis & Research | Interdepartmental, Cal/EPA, ARB, CEC | | Analytical report, data collection, publication, workshops, outreach | Not Estimated | Not Estimated |
| Fleet Greening & Fuel Diversification | Division of Equipment | Department of General Services | | Fleet Replacement | .0045 | .0065 |
| | | | | B20 B100 | | .045 .0225 |

| Strategy | Program | Partnership | | Method/ Process | Estimated CO ₂ Savings Million Metric Tons (MMT) | |
|-------------------------------------|-----------------------------|---|--------|-----------------------------------|--|---------------|
| | | Lead | Agency | | 2010 | 2020 |
| Non-vehicular Conservation Measures | Energy Conservation Program | Green Action Team | | Energy Conservation Opportunities | .117 | .34 |
| Portland Cement | Office of Rigid Pavement | Cement and Construction Industries | | 2.5% limestone cement mix | 1.2 | 4.2 |
| | | | | 25% fly ash cement mix | .36 | 3.6 |
| | | | | > 50% fly ash/slag mix | | |
| Goods Movement | Office of Goods Movement | Cal/EPA, ARB, BT&H, Metropolitan Planning Organizations | | Goods Movement Action Plan | Not Estimated | Not Estimated |
| Total | | | | | 2.72 | 18.18 |

Caltrans Director's Policy 30 (DP-30) Climate Change (June 22, 2012): is intended to establish a Caltrans policy that will ensure coordinated efforts to incorporate climate change into Caltrans decisions and activities.

Caltrans Activities to Address Climate Change (April 2013)²¹ provides a comprehensive overview of activities undertaken by Caltrans statewide to reduce GHG emissions resulting from agency operations.

The following measures will also be included in the project to reduce GHG emissions and potential climate change impacts from the project.

1. Caltrans and the California Highway Patrol are working with regional agencies to implement Intelligent Transportation Systems to help manage the efficiency of the existing highway system. Intelligent Transportation Systems commonly consist of electronics, communications, or information processing used singly or in combination to improve the efficiency or safety of a surface transportation system.
2. In addition, the Sacramento Area Council of Governments provides ridesharing services and park-and-ride facilities to help manage the growth in demand for highway capacity. These include the Sacramento Region 511 website (<http://www.sacregion511.org>), which provides information for various programs, including a Commuter Club + Rideshare Database, Vanpool Incentive Program, and map of park and ride lots.
3. Landscaping reduces surface warming, and through photosynthesis, decreases CO₂. The project proposes onsite restoration for all areas temporarily disturbed by construction. Onsite replanting of trees may occur in intersection and interchange slopes and along drainage channels, and soil-stabilizing seeding would occur in open areas disturbed by construction. Planted species will be similar to those removed from the project area and will include native

²¹ http://www.dot.ca.gov/hq/tpp/offices/orip/climate_change/projects_and_studies.shtml

species, such as valley oak, Fremont cottonwood, Oregon ash, black willow, red willow, and arroyo willow. These trees will help offset any potential CO₂ emissions increase.

4. According to Caltrans Standard Specifications, the contractor must comply with all local Air Pollution Control District's rules, ordinances, and regulations for air quality restrictions.

Adaptation Strategies

“Adaptation strategies” refer to how Caltrans and others can plan for the effects of climate change on the state’s transportation infrastructure and strengthen or protect the facilities from damage. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and 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. There may also be economic and strategic ramifications as a result of these types of impacts to the transportation infrastructure.

At the federal level, the Climate Change Adaptation Task Force, co-chaired by the Council on Environmental Quality, the Office of Science and Technology Policy, and the National Oceanic and Atmospheric Administration, released its interagency task force progress report on October 28, 2011,²² 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 provides an update on actions in key areas of federal adaptation, including: building resilience in local communities, safeguarding critical natural resources such as freshwater, and providing accessible climate information and tools to help decision-makers manage climate risks.

Climate change adaptation must also involve the natural environment. Efforts are underway on a statewide level to develop strategies to cope with impacts to habitat and biodiversity through planning and conservation. The results of these efforts will help California agencies plan and implement mitigation strategies for programs and projects.

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.

In addition to addressing projected sea level rise, the California Natural Resources Agency was directed to coordinate with local, regional, state, and federal public and private entities to develop the California Climate Adaptation Strategy (Dec 2009),²³ which summarizes the best known science on climate change impacts on California, assesses California’s vulnerability to

²² <http://www.whitehouse.gov/administration/eop/ceq/initiatives/adaptation>

²³ <http://www.energy.ca.gov/2009publications/CNRA-1000-2009-027/CNRA-1000-2009-027-F.PDF>

the identified impacts, and then outlines solutions that can be implemented within and across state agencies to promote resiliency.

The strategy outline is in direct response to EO S-13-08 that specifically asked the California Natural Resources Agency to identify how state agencies can respond to rising temperatures, changing precipitation patterns, sea level rise, and extreme natural events. Numerous other state agencies were involved in the creation of the Adaptation Strategy document, including the Cal/EPA; Business, Transportation and Housing; Health and Human Services; and the Department of Agriculture. The document is broken down into strategies for different sectors that include: Public Health; Biodiversity and Habitat; Ocean and Coastal Resources; Water Management; Agriculture; Forestry; and Transportation and Energy Infrastructure. As data continues to be developed and collected, the state's adaptation strategy will be updated to reflect current findings.

The National Academy of Science was directed to prepare a Sea Level Rise Assessment Report²⁴ to recommend how California should plan for future sea level rise. The report was released in June 2012 and included the following.

- Relative sea level rise projections for California, Oregon and Washington taking into account coastal erosion rates, tidal impacts, El Niño and La Niña events, storm surge and land subsidence rates.
- The range of uncertainty in selected sea level rise projections.
- 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.
- A discussion of future research needs regarding sea level rise.

In 2010, interim guidance was released by the Coastal Ocean Climate Action Team as well as Caltrans as a method to initiate action and discussion of potential risks to the states infrastructure due to projected sea level rise. Subsequently, the Coastal Ocean Climate Action Team updated the sea level rise guidance to include information presented in the National Academies Study.

All state agencies that are planning to construct projects in areas vulnerable to future sea level rise are directed to consider a range of sea level rise scenarios for the years 2050 and 2100 to 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, storm surge and storm wave data.

All projects that have filed a Notice of Preparation as of the date of the EO S-13-08, or are programmed for construction funding through 2013, or are routine maintenance projects may,

²⁴ *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.

but are not required to, consider these planning guidelines. The proposed project is outside the coastal zone and direct impacts to transportation facilities due to projected sea level rise are not expected.

Executive Order S-13-08 also directed the Business, Transportation, and Housing Agency to prepare a report to assess vulnerability of transportation systems to sea level rise affecting safety, maintenance and operational improvements of the system, and economy of the state. Caltrans continues to work on assessing the transportation system vulnerability to climate change, including the effect of sea level rise.

Currently, Caltrans is working to assess which transportation facilities are at greatest risk from climate change effects. However, without statewide planning scenarios for relative sea level rise and other climate change effects, Caltrans has not been able to determine what change, if any, may be made to its design standards for its transportation facilities. Once statewide planning scenarios become available, Caltrans will be able review its current design standards to determine what changes, if any, may be needed to protect the transportation system from sea level rise.

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. Caltrans is an active participant in the efforts being conducted in response to EO S-13-08 and is mobilizing to be able to respond to the National Academy of Science Sea Level Rise Assessment Report.

Hazards and Hazardous Materials

Regulatory Setting

Federal

The primary federal laws regulating to 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. RCRA provides for “cradle to grave” regulation of hazardous waste generated by operating entities. Other federal laws include the following.

- Community Environmental Response Facilitation Act of 1992
- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act

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

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

State

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

The affected environment and subsequent analysis for hazards and hazardous materials is based on the analysis documented in the *Initial Site Assessment* (Blackburn Consulting 2015a) and the *Aerially Deposited Lead Assessment* prepared for the project (Blackburn Consulting 2015b).

Yellow Traffic Stripes

Caltrans studies have determined that yellow/white thermoplastic striping and painted markings, such as those used within the proposed project area, may contain elevated concentrations of lead and chromium, depending on the age of the striping (manufactured before 2005) and painted markings (manufactured before 1997). Disturbing either yellow or white pavement markings by grinding, sandblasting, or heating can expose workers to lead and/or chromium.

Aerially Deposited Lead

Aerially deposited lead (ADL) can be found in the surface and near-surface soils along nearly all roadways, including those in the proposed project area, because of the historical use of tetraethyl lead in motor vehicle fuels. Areas of primary concern are soils along routes that have had high vehicle emissions from large traffic volumes or congestion during the period when leaded gasoline was in use (generally prior to 1986). Typically, ADL is found in shoulder areas and has

high solubility when subjected to the low pH conditions of waste characterization tests. Shoulder soils along urban and heavily travelled rural highways are commonly above the soluble threshold limit concentration criteria.

Investigations for ADL for the proposed project included an assessment conducted in January 2015 for another project (SR 65 Capacity and Operational Improvements Project) to evaluate the presence of ADL along SR 65. Two of the sample locations from the SR 65 Capacity and Operational Improvements Project ADL assessment (ADL-1 and ADL-2) are located within the current project limits. Total lead concentrations for samples ADL-1 and ADL-2 were below the detection limit of 3.0 mg/kg. To confirm that the ADL results from the previous study were representative of the contaminant distribution for the entire project limits, a limited ADL screening was completed for the entire project limits (November 2015) to evaluate the presence of ADL within the project area and verify consistency with the previously identified ADL levels.

Ten soil samples were obtained from locations along the unpaved road shoulders located on both sides of the SR 65 NB ramps. The analytical test results indicate:

- Total lead concentrations were below the detection limit of 3.0 mg/kg in all samples, with the exception of Sample ADL7 which resulted in a detected concentration of 16 mg/kg.
- No total lead sample results exceeded the 50 mg/kg threshold level and therefore the samples did not require further testing.
- The pH test result was 6.5 (close to neutral).
- All QA/QC method blanks, duplicates and spikes were within acceptable ranges of recovery.

Based on the lead testing data, soil excavated within the project limits may be reused without restrictions and additional ADL testing is not warranted.

In addition, all of the ADL samples exhibited total lead below the industrial California Human Health Screening Level (320 mg/kg for an industrial exposure scenario) for lead. The results of the ADL assessment indicate impacted soil is not present within the areas tested, and does not pose a significant health risk to construction workers or the general public.

Site Adjacent to the Project with Hazardous Substances

A site with known or potential hazardous materials issues adjacent to the project area was identified during a site reconnaissance and records review. The site (identified as CRLLC [currently Union76/Propel Fuels Inc.]) is located at 6700 Five Star Boulevard adjacent to the project area on the southeast corner of Stanford Ranch Road and Five Star Boulevard.

Five underground fuel storage tanks (USTs) exist at this site. Three 10,000-gallon gasoline USTs are located at Union 76, and one ethanol and one biodiesel fuel UST are located at Propel Fuels Inc. In 1998, three groundwater monitoring wells were installed to assess soil and groundwater conditions. One groundwater sample contained methyl-tert-butyl ether (MTBE). Between June 1998 and July 2000, ten groundwater samples were taken and only minor concentrations of benzene and MTBE were detected. The last four quarters of groundwater sampling resulted in

non-detect levels for all analyzed constituents. On January 3, 2001, the Central Valley RWQCB closed the case and confirmed no further action required. The RWQCB's memorandum concluded that only minor concentrations of petroleum hydrocarbons remained and are unlikely to pose a threat to human health and safety or the environment.

Proximity of Schools

The closest school to the project area is Antelope Creek Elementary School located approximately 0.15 mile northeast of the project area.

Environmental Consequences

Humans and the environment could be exposed to hazardous conditions from the accidental release of hazardous materials during construction activities. Construction would involve the use of heavy equipment, involving small quantities of hazardous materials (e.g., petroleum and other chemicals used to operate and maintain construction equipment) that may result in hazardous conditions in the project area.

The Initial Site Assessment (Blackburn Consulting 2015a) identified the potential for contamination associated with traffic or roadway maintenance through the removal of yellow/white traffic striping, which could release lead or chromium, threatening worker health and safety.

The proposed improvements would not change existing conditions as they relate to the release of hazardous materials. No new significant sources of hazardous materials will be introduced by the project.

Avoidance and/or Minimization Measures

No mitigation is required. The following standard procedures would be required as part of the project to avoid and minimize effects related to hazardous materials.

Develop and Implement Plans to Address Worker Health and Safety

As necessary, and as required by Caltrans and federal and state regulations, plans such as a health and safety plan, BMPs, and/or an injury and illness prevention plan will be prepared and implemented to address worker safety when working with potentially hazardous materials, including potential lead or chromium in traffic stripes.

Conduct Sampling, Testing, Removal, Storage, Transportation, and Disposal of Yellow/White Traffic Striping along Existing Roadways

As required by Caltrans' standard special provisions, the construction contractor will sample and test yellow/white traffic striping scheduled for removal to determine whether lead or chromium is present. All aspects of the project associated with removal, storage, transportation, and disposal will be in strict accordance with appropriate regulations of the California Health and Safety Code. The stripes will be disposed of at a Class 1 disposal facility. These grindings

(which consist of the roadway material and the yellow color traffic stripes) will be removed and disposed of in accordance with Standard Special Provision 15-1.03B (Residue Containing High Lead Concentration Paints) (http://www.dot.ca.gov/hq/env/haz/hw_sp.htm) which requires a Lead Compliance Plan. Non-hazardous levels of lead are known to exist in the white traffic striping. As such, these grindings will be removed and disposed of in accordance with the same specification.

The responsibility of implementing this measure will be outlined in the contract between Caltrans and the construction contractor. Implementing this measure will minimize potential effects from these hazardous materials.

Hydrology and Water Quality

Regulatory Setting

Federal

Clean Water Act

In 1972, Congress amended the federal Water Pollution Control Act, making the addition of pollutants to waters of the United States from any point source²⁵ unlawful unless the discharge is in compliance with an NPDES permit. This act and its amendments are known today as the CWA. Congress has amended the act several times. In the 1987 amendments, Congress directed dischargers of stormwater from municipal and industrial/construction point sources to comply with the NPDES permit 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 United States to obtain certification from the state that the discharge will comply with other provisions of the act. This is most frequently required in tandem with a Section 404 permit request (see below).
- Section 402 establishes the NPDES, a permitting system for the discharges (except for dredge or fill material) of any pollutant into waters of the United States. RWQCBs administer this permitting program in California. Section 402(p) requires permits for discharges of stormwater from industrial/construction and municipal separate storm sewer systems (MS4s).
- Section 404 establishes a permit program for the discharge of dredge or fill material into waters of the United States. This permit program is administered by USACE.

The goal of the CWA is “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”

²⁵ A *point source* is any discrete conveyance such as a pipe or a man-made ditch.

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

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

According to the Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures has been followed, in that order. The Guidelines also restrict permitting activities that violate water quality or toxic effluent²⁶ standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause "significant degradation" to waters of the United States. In addition, every permit from the USACE, even if not subject to the Guidelines, must meet general requirements. See 33 CFR Part 320.4.

State

Porter-Cologne Water Quality Control Act

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

The State Water Board and RWQCBs are responsible for establishing the water quality standards (objectives and beneficial uses) required by the CWA, and for regulating discharges to ensure compliance with the water quality standards. Details about water quality standards in a project area are included in the applicable RWQCB Basin Plan. In California, the RWQCBs designate

²⁶ The EPA defines *effluent* as "wastewater, treated or untreated, that flows out of a treatment plant, sewer, or industrial outfall."

beneficial uses for all water body segments and then set the criteria necessary to protect these uses. As a result, the water quality standards developed for particular water segments are based on the designated use and vary depending on that use. In addition, the State Water Board identifies waters failing to meet standards for specific pollutants. These waters are then state-listed in accordance with CWA Section 303(d). If a state determines that waters are impaired for one or more constituents and that the standards cannot be met through point source or non-point source controls (NPDES permits or WDRs), the CWA requires establishment of Total Maximum Daily Loads (TMDLs). TMDLs specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed.

State Water Resources Control Board and Regional Water Quality Control Boards

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

National Pollutant Discharge Elimination System Program

Municipal Separate Storm Sewer Systems

Section 402(p) of the CWA requires issuance of NPDES permits for five categories of stormwater discharges, including MS4s. An MS4 is defined as “any conveyance or system of conveyances (roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels, and storm drains) owned or operated by a state, city, town, county, or other public body having jurisdiction over stormwater, that is designed or used for collecting or conveying stormwater.” The State Water Board 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 State Water Board or the RWQCB issues NPDES permits for 5 years, and permit requirements remain active until a new permit has been adopted.

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

1. Caltrans must comply with the requirements of the Construction General Permit (see below);
2. Caltrans must implement a year-round program in all parts of the state to effectively control stormwater and non-stormwater discharges; and
3. Caltrans’ stormwater discharges must meet water quality standards through implementation of permanent and temporary (construction) BMPs, to the maximum extent practicable, and other measures the State Water Board determines necessary to meet the water quality standards.

To comply with the permit, Caltrans developed the statewide Storm Water Management Plan (SWMP) to address stormwater pollution controls related to highway planning, design,

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

Construction General Permit

Construction General Permit (Order No. 2009-009-DWQ), adopted on September 2, 2009, became effective on July 1, 2010. The Construction General Permit was amended by 2010-0014-DWQ and 2012-0006-DWQ on February 14, 2011 and July 17, 2012, respectively. The permit regulates stormwater discharges from construction sites that result in a disturbed soil area (DSA) of 1 acre or greater and/or are smaller sites that are part of a larger common plan of development. By law, all stormwater discharges associated with construction activity where clearing, grading, and excavation result in soil disturbance of at least 1 acre must comply with the provisions of the Construction General Permit. Construction activity that results in soil disturbances of less than 1 acre is subject to this Construction General Permit if the activity has the potential to result in significant water quality impairment, as determined by the RWQCB. Operators of regulated construction sites are required to develop SWPPPs; 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 stormwater runoff 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 SWPPP. In accordance with Caltrans' Standard Specifications, a Water Pollution Control Program is necessary for projects with a DSA of less than 1 acre.

Section 401 Permitting

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

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

Regional

Placer County Stormwater Quality Program

Placer County is a designated municipal permittee under the EPA's NPDES, which regulates stormwater flows into natural water bodies. The NPDES regulations require permitted areas to implement specific activities and actions to eliminate or control stormwater pollution. Under the Phase I NPDES program, Placer County shares a permit with El Dorado County and the City of South Lake Tahoe for the Lake Tahoe watershed area. Under the Phase II NPDES program, Placer County is permitted in the western county area and in the Truckee River Basin.

Local

City of Rocklin Stormwater Management Program

The City of Rocklin has prepared a SWMP in order to comply with the requirements of the EPA's NPDES. The SWMP provides the frameworks for public outreach, public involvement, illicit discharge and detection, management of construction site runoff, new development and redevelopment, and municipal operation.

City of Roseville Stormwater Management Program

Similarly, the City of Roseville has prepared a SWMP in order to comply with the requirements of the EPA's NPDES. The SWMP provides the frameworks for public outreach, public involvement, illicit discharge and detection, management of construction site runoff, new development and redevelopment, and municipal operation.

Affected Environment

The affected environment and subsequent analysis for hydrology and water quality is based on the following reports.

- *EA 03-0H560 Stanford Ranch Road/Galleria Boulevard/SR 65 Northbound Ramps Water Quality Study Memorandum (WRECO 2015a)*
- *EA 03-0H560 Stanford Ranch Road/Galleria Boulevard/SR 65 Northbound Ramps Hydrology and Hydraulic Memorandum (WRECO 2015b)*
- *EA 03-0H560 Stanford Ranch Road/Galleria Boulevard/SR 65 Northbound Ramps Storm Water Data Report (WRECO 2015c)*

Hydrologic information was determined using the Caltrans Water Quality Planning Tool. Within the project limits, SR 65 is within one hydrologic unit, Valley-American, and crosses two hydrologic sub-areas, Lower American (HSA #519.21) and Pleasant Grove (HSA #519.22). The Pleasant Grove hydrologic sub-area includes the tributary to the South Branch of Pleasant Grove Creek, which crosses SR 65 at R6.08, within the project limits, and is the project's receiving water body for stormwater discharge. The Lower American hydrologic sub-area includes Antelope Creek, which crosses SR 65 at R5.342, outside of the project limits.

In the project vicinity, erosion from stormwater runoff is the dominant natural erosion process. The susceptibility of soils to water erosion is described by factors estimated by the Natural Resources Conservation Service. Soils within the project limits have moderate susceptibility to water erosion.

Environmental Consequences

This project would result in an increase of impervious area and therefore could potentially increase the volume and velocity of stormwater runoff to downstream receiving water bodies. In addition, pollutant loading could also be increased.

Potential Water Quality Impacts

During construction, potential water quality impacts include sediment-laden discharge from DSAs and pollutant-laden discharge from storage or work areas. Temporary impacts could also result from construction near or within water resources. Permanent impacts to water quality could result from the addition of impervious area; this additional impervious area prevents runoff from naturally dispersing and infiltrating into the ground, resulting in increased concentrated flow. The additional flow has the potential to transport an increased amount of sediment and pollutants to waterways and water resources and create increased erosion resulting from changes to waterway runoff rates and drainage.

Suspended Particulates (Turbidity)

Sources of sediment that could result in increases in turbidity include uncovered or improperly covered active and non-active stockpiles, unstabilized slopes and construction staging areas, and construction equipment not properly maintained or cleaned. Non-infiltrated and concentrated runoff resulting from addition of impervious area could result in the direct discharge of sediment-laden flow from the roadway to receiving water bodies.

Oil, Grease, and Chemical Pollutants

Heavy metals associated with vehicle tire and brake wear, oil and grease, and exhaust emissions are the primary pollutants associated with transportation corridors. Generally, highway stormwater runoff has the following pollutants: total suspended solids, nitrate nitrogen, total Kjeldahl nitrogen, phosphorus, ortho-phosphate, copper, lead, and zinc. The pollutants are dispersed from tree leaves, combustion products from fossil fuels, and the wearing of brake pads

and tires. The project could also result in increased deposition of particulates due to increased traffic loads throughout the corridor.

Circulation or Drainage Pattern Changes

Within the project area, the existing drainage system is composed of cross culverts, concrete ditches, urban vegetation, storm drains along Galleria Boulevard/Stanford Ranch Road, as well as unlined ditches, and roadside asphalt concrete gutters. Existing cross culverts under SR 65 within the project limits are summarized in Table 8.

Table 8. Existing Drainage Facilities Crossing SR 65

| Receiving Waterway | Control Line | Approximate PM(s) | Drainage Facility |
|-----------------------------------|--------------|-------------------|-------------------|
| South Branch Pleasant Grove Creek | SR65 | R5.9 | 48" CMP1 |
| | SR65 | R6.0 | 48" CMP |
| | SR65 | R6.1 | 48" APC2 |
| | SR65 | R6.3 | 36" CMP |

¹ CMP = Corrugated Metal Pipe
² APC = Alternative Pipe Culvert

The proposed widening and modifications of the SR 65 NB ramps would result in the modification of existing ditches, modification or relocation of existing longitudinal drainage structures, extension or relocation of existing cross culverts, and construction of new drainage structures such as cross drains, ditches and swales. The primary features of the proposed project that would impact existing drainage facilities are the widening of the ramps and roadways.

The goal of the project drainage design would be to maintain existing drainage patterns. Existing culvert diameters, slopes, and elevations would be determined using as-built record drawings, survey data, field observation, or maintenance records. The project drainage systems would be designed to route flows to and from the permanent stormwater treatment BMPs. Roadway drainage systems for through traffic lanes, branch connections, and other major ramp connections would be designed using the 25-year design discharge (WRECO 2015b).

Also, the additional 1.42 acres of impervious area created by the project may result in impacts, including increases in flow and peak flow velocity and volume to project receiving water bodies. The increase in impervious areas from the project would result in additional runoff to downstream and off-site drainage systems and cross culverts. To address any increases in runoff resulting from increases in impervious areas and to prevent potential velocity increases, sediment control or design pollution prevention BMPs and other measures would be implemented as part of the project. For example, ditches or swales would be placed to convey roadway runoff to existing crossings or creeks. To prevent the concentration of flows and promote sheet flow, permanent fiber rolls would be placed along slope contours. To construct the project, some slopes within the project limits would be modified. Concentrated flows would be managed by rounding and shaping slopes and would be collected in new or modified stabilized drains or

channels. Additional design pollution prevention BMPs and proposed treatment BMPs are discussed further below.

Erosion and Accretion Patterns

The increase in impervious area could result in the modification of existing receiving water bodies by increasing the flow volumes and rates and peak durations from the loss of unpaved overland flow and native infiltration (hydromodification). These hydromodification impacts could cause increased bed and bank erosion, loss of habitat, increased sediment transport and deposition, and increased flooding. To prevent downstream erosion, various measures such as sediment control or design pollution prevention BMPs would be implemented to avoid potential velocity increases, stabilize slopes, and minimize erosion potential. Flared-end sections with rock slope protection would be placed at culvert outfalls to avoid or minimize erosion of slopes or ditches. To stabilize slopes, minimize erosion and promote vegetation growth, a mixture of erosion control materials such as erosion netting, compost, and hydroseed are proposed.

Construction Activities

Earth moving and other construction activities could cause minor erosion and runoff of topsoils into the drainage systems along the project corridor during construction, which could temporarily affect water quality in creeks. During construction, temporary drainage facilities may be required to redirect runoff from work areas. Sediment-laden flow could result from runoff flowing over DSAs, and could enter storm drainage facilities or directly discharge into receiving water bodies, increasing turbidity and decreasing the clarity and beneficial uses of the receiving water body.

During construction, the project would have the potential for temporary water quality impacts due to grading and excavation activities, which could cause increased erosion. Stormwater runoff from the project site may transport pollutants to nearby receiving waters and storm drains if BMPs are not properly implemented. Generally, as the DSAs increase, the potential for temporary water quality impacts also increases. The proposed project has an estimated DSA of 12.44 acres. Based on the preliminary calculated area, the project would have potential water quality impacts during construction.

Fueling or maintenance of construction vehicles would occur within the project site during construction, so there would be a risk of accidental spills or releases of fuels, oils, or other potentially toxic materials. An accidental release of these materials could pose a threat to water quality if contaminants enter storm drains, open channels, or surface water receiving bodies. The magnitude of the impact from an accidental release depends on the amount and type of material spilled.

Avoidance and/or Minimization Measures

No mitigation is required. The following permit conditions would be required as part of the project to avoid and minimize effects related to hydrology and water quality.

Required Temporary Best Management Practices

The design features to address water quality impacts are a condition of Caltrans' NPDES permit, Construction General Permit, and other regulatory agency requirements. Potential temporary impacts to water quality can be avoided or minimized by implementing standard BMPs recommended for a particular construction activity. The selected temporary BMPs, identified in Table 9 below, are consistent with the practices required under the Construction General Permit and Caltrans MS4 Permit and are intended to achieve compliance with the requirements of the permits. Compliance with the requirements of these permits, and adherence to the conditions, would reduce or avoid potentially significant construction-related impacts.

Table 9. Temporary Best Management Practices

| Temporary BMP | Purpose |
|---|--|
| Soil Stabilization | |
| Temporary Cover | Plastic covers for stockpiles. |
| Hydraulic Mulch | To stabilize idle disturbed areas during construction, especially slopes. |
| Sediment Control | |
| Fiber Rolls | Degradable fibers rolled tightly and placed on the toe and face of slopes to intercept runoff. |
| Silt Fence | Linear, permeable fabric barriers to intercept sediment-laden sheet flow. Placed downslope of exposed soil areas, along channels and project perimeter. |
| Gravel Bag Berm | Single row of gravel bags installed end-to-end to form a barrier across a slope to intercept runoff. Can be used to divert or detain moderately concentrated flows. |
| Check Dams | Small constructed device of rock or other product placed across a channel or ditch to reduce flow velocity. |
| Drainage Inlet Protection | Runoff detention devices used at storm drain inlets that are subject to runoff from construction activities. |
| Tracking Control Practices | |
| Street Sweeping | Removal of tracked sediment to prevent it from entering a storm drain or watercourse. |
| Construction Entrance | Points of entrance/exit to a construction site that are stabilized to reduce the tracking of mud and dirt onto public roads. |
| Non-Stormwater Controls | |
| Dewatering | For managing groundwater within excavations. |
| All other anticipated non-stormwater management measures are covered under Job Site Management. | |
| Waste Management and Materials Pollution Control | |
| Concrete Waste Management | Specified vehicle washing areas to contain concrete waste materials. |
| Hazardous Waste Management and Contaminated Soil Management are covered in Section 14-11 of the Standard Specifications. | |
| Job Site Management | |
| <p>General measures covered under job site management include:</p> <ul style="list-style-type: none"> • spill prevention and control • materials management • stockpile management • waste management • hazardous waste management • contaminated soil • concrete waste • sanitary and septic waste and liquid waste <p>Miscellaneous job site management includes:</p> <ul style="list-style-type: none"> • training of employees and subcontractors • proper selection, deployment and repair of construction site BMPs | <p>Non-stormwater management consists of:</p> <ul style="list-style-type: none"> • water control and conservation • illegal connection and discharge detection and reporting • vehicle and equipment cleaning • vehicle and equipment fueling and maintenance • paving, sealing, saw cutting and grinding operations • thermoplastic striping and pavement markers • concrete curing and concrete finishing |

Required Permanent Pollution Prevention Design Measures

The project involves more than 1 acre of added impervious area, and therefore appropriate treatment BMPs would need to be implemented for areas within Caltrans’ right-of-way. The project will treat 1.42 acres of new impervious area, created by the project. In addition to the

required treatment acreage, the project will incorporate an additional 1.26 acres of treatment capability, for a total of 2.68 acres, as alternative compliance for a future project within the watershed. Biofiltration swales and strips are the most preferred treatment methods for this project. (WRECO 2015c).

The Caltrans MS4 Permit contains provisions to reduce, to the maximum extent practicable, pollutant loadings from the facility once construction is complete. The permit stipulates that permanent measures that control pollutant discharges must be considered and implemented for all new or reconstructed facilities. Permanent control measures located within Caltrans' right-of-way reduce pollutants in stormwater runoff from the roadway. These measures reduce the suspended particulate loads, and thus pollutants associated with the particles, from entering waterways. The measures required by the permit would be incorporated into the final engineering design or landscape design of the project and would take into account expected runoff from the roadway. In addition, the permit also stipulates that an operation and maintenance program be implemented for permanent control measures. This category of water quality control measures can be identified as including both design pollution prevention BMPs and treatment BMPs.

Noise

Regulatory Setting

CEQA requires a strictly baseline versus build analysis to assess whether a proposed project will result in a noise impact. If a proposed project is determined to cause a significant noise impact under CEQA, CEQA requires that mitigation measures must be incorporated into the project unless those measures are not feasible.

Affected Environment

The affected environment and subsequent analysis for noise is based on the Noise Study Report prepared for the proposed project (ICF International 2015e).

A field investigation was conducted to identify land uses that could be subject to traffic and construction noise impacts from the proposed project. The project area consists mostly of commercial use that includes no apparent outdoor areas of frequent human use. There are some small outdoor areas of frequent human use in the project area, including an outdoor swimming pool at a hotel, and an outdoor seating area at a restaurant. The nearest residential use is more than 750 feet away from the study alignment.

Design year traffic volumes in the project area are the same when comparing Build and No Build Alternatives (Fehr & Peers 2015). Increases in traffic noise are not a result of the project itself. Increases in noise levels are due to background growth and increases in traffic volumes between years 2012 and 2040.

Environmental Consequences

During construction of the project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Construction activities include demolition of existing structures, building of new structures, and implementation of detours. Equipment operations associated with demolition and building activities will be a source of noise. Implementation of detours may increase noise in some areas as a result of temporarily diverted traffic. Construction noise is controlled by Caltrans Standard Specifications Section 14-8.02 NOISE CONTROL, which states:

- Do not exceed 86 A-weighted decibels (dBA) at 50 feet from the job site activities from 9 p.m. to 6 a.m.
- Equip an internal combustion engine with the manufacturer-recommended muffler. Do not operate an internal combustion engine on the job site without the appropriate muffler.

Table 10 summarizes noise levels produced by construction equipment that is commonly used on roadway construction projects. Construction equipment is expected to generate noise levels ranging from 80 to 90 decibels (dB) at a distance of 50 feet, which would be reduced over distance at a rate of about 6 dB per doubling of distance.

Table 10. Construction Equipment Noise

| Equipment | Maximum Noise Level (dBA at 50 feet) |
|-----------------|--------------------------------------|
| Scrapers | 89 |
| Bulldozers | 85 |
| Heavy Trucks | 88 |
| Backhoe | 80 |
| Pneumatic Tools | 85 |
| Concrete Pump | 82 |

Source: Federal Transit Administration 2006.

No adverse noise impacts from construction are anticipated because construction would be conducted in accordance with Caltrans Standard Specifications Section 14-8.02 and applicable local noise standards. Construction noise would be short term, intermittent, and overshadowed by local traffic noise.

Avoidance and/or Minimization Measures

No mitigation is required. Construction would be conducted in accordance with Caltrans Standard Specifications Section 14-8.02 and applicable local noise standards. Although not required, implementing the following minimization measures would minimize the temporary noise impacts from construction.

- 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.
- As directed by Caltrans, 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.

Transportation/Traffic

Regulatory Setting

Caltrans, as assigned by FHWA, directs that full consideration should be given to the safe accommodation of pedestrians and bicyclists during development of federal-aid highway projects (see 23 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 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 issued an Accessibility Policy Statement pledging a fully accessible multimodal transportation system. Accessibility in federally assisted programs is governed by the U.S. Department of Transportation regulations (49 CFR § 27) implementing Section 504 of the Rehabilitation Act (29 USC § 794). FHWA has enacted regulations for implementation of the 1990 Americans with Disabilities Act, including a commitment to build transportation facilities that provide equal access for all persons. These regulations require application of the Americans with Disabilities Act requirements to federal-aid projects, including transportation enhancement activities.

Affected Environment

The affected environment and subsequent analysis for transportation and traffic is based on the Transportation Analysis Report prepared for the proposed project (Fehr & Peers 2015). Detailed information regarding the methodology used in the analysis is included in the report.

Study Area

The project study area for transportation analysis extends beyond the immediate vicinity of the project interchange and includes areas of Roseville, Rocklin and Lincoln. Within the study area SR 65 is an important interregional route that serves local and regional traffic. The route serves as a major connector for both automobile and truck traffic originating from the I-80 corridor in the Roseville/Rocklin area to the SR 70/99 corridor in the Marysville/Yuba City area. SR 65 is a vital economic link from residential areas to shopping and employment centers in southern Placer County. I-80 is the principal east–west route in northern and central California, providing all-weather access across the Sierra Nevada for major goods movement into the Sacramento and San Francisco Bay areas. The interstate accommodates high commute, interregional and recreational traffic volumes, as well as high levels of truck freight traffic within the greater Sacramento region.

Acceptable Traffic Operating Conditions

Level of service (LOS) is a qualitative measure of traffic operations from a driver’s perspective; it varies from LOS A (the best) to LOS F (the worst), and is one of the main evaluation criteria for the *Transportation Analysis Report*. Tables 11 and 12 describe the LOS thresholds from the *Highway Capacity Manual* (Transportation Research Board 2011) for freeway sections and signalized intersections, respectively.

Table 11. Freeway LOS Descriptions

| LOS | Average Density (vplpm) | | Description |
|-----|-------------------------|--------------------------------|---|
| | Basic Sections | Ramp Junction & Weave Sections | |
| A | <11 | < 10 | Free-flow speeds prevail. Vehicles are almost completely unimpeded in their ability to maneuver. |
| B | > 11 to 18 | > 10 to 20 | Free-flow speeds are maintained. The ability to maneuver with the traffic stream is only slightly restricted. |
| C | > 18 to 26 | > 20 to 28 | Flow with speeds at or near free-flow speeds. Freedom to maneuver within the traffic stream is noticeably restricted, and lane changes require more care and vigilance on the part of the driver. |
| D | > 26 to 35 | > 28 to 35 | Speeds decline slightly with increasing flows. Freedom to maneuver with the traffic stream is more noticeably limited, and the driver experiences reduced physical and psychological comfort. |
| E | > 35 to 45 | > 35 to 43 | Operation at capacity. There are virtually no usable gaps within the traffic stream leaving little room to maneuver. Any disruption can be expected to produce a breakdown with queuing. |
| F | > 45 | > 43 | Represents a breakdown in flow. |

Note: vplpm = vehicles per lane per mile

Source: Fehr & Peers 2015.

Table 12. Signalized Intersection LOS Descriptions

| LOS | Average Delay (sec/veh) | Description |
|-----|-------------------------|--|
| A | < 10 | Very low delay occurs with favorable progression and/or short cycle length. |
| B | > 10 to 20 | Low delay occurs with good progression and/or short cycle lengths. |
| C | > 20 to 35 | Average delays result from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear. |
| D | > 35 to 55 | Longer delays occur due to a combination of unfavorable progression, long cycle lengths, or high volume-to-capacity ratios. Many vehicles stop and individual cycle failures are noticeable. |
| E | > 55 to 80 | High delay values indicate poor progression, long cycle lengths, and high volume-to-capacity ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay. |
| F | > 80 | Delays are unacceptable to most drivers due to over-saturation, poor progression, or very long cycle lengths. |

Note: sec/veh = seconds per vehicle

Source: Fehr & Peers 2015.

The project has the potential to affect traffic operations across multiple jurisdictions. LOS is used to assess effects because each affected agency has established policies and thresholds related to LOS expectations. The acceptable traffic operating conditions for each jurisdiction in the study area is described below.

California Department of Transportation

According to the *Interstate 80 and Capital City Freeway Corridor System Management Plan and the State Route 65 Corridor System Management Plan* (Caltrans District 3, May 2009), Caltrans has identified the minimum acceptable LOS for the following segments.

- LOS F for I-80 from Riverside Avenue/Auburn Boulevard to Sierra College Boulevard
- LOS F for SR 65 from I-80 to Blue Oaks Boulevard
- LOS E for SR 65 from Blue Oaks Boulevard to Industrial Avenue (Lincoln Boulevard)

LOS E conditions are desired when feasible, but LOS F conditions are likely to occur in the study area under no build conditions as recognized by the concept LOS thresholds. The LOS E threshold will be used to identify minimum acceptable operations (that is, deficiencies) and potential impacts on state highway mainline segments, ramp junctions, weaving segments, and ramp terminal intersections. For locations with LOS F under the No Build Alternative, an impact would occur if the three build alternatives would worsen the LOS F condition based on the quantitative performance measure associated with the specific type of analysis.

City of Roseville

For study intersections within the City of Roseville, the *City of Roseville General Plan* (Adopted May 5, 2010) LOS policy states:

- Maintain LOS “C” standard at a minimum of 70 percent of all signalized intersections and roadway segments in the City during the PM peak hours.

Some of the study intersections are shown in the General Plan to operate at worse than LOS C under the conditions identified in the General Plan in year 2025. For this project, the following criteria are proposed.

- For intersections shown to be operating at LOS C or better in the General Plan under 2025 conditions, LOS C will be used as the minimum acceptable LOS.
- For intersections shown to be operating at LOS D in the General Plan under 2025 conditions, LOS D will be used as the minimum acceptable LOS.
- For intersections shown to be operating at LOS E in the General Plan under 2025 conditions, LOS E will be used as the minimum acceptable LOS.
- For intersections shown to be operating at LOS F in the General Plan under 2025 conditions, LOS F and the corresponding delay will be used as the minimum acceptable LOS.

Using the above criteria, LOS D is the minimum acceptable LOS for the Stanford Ranch Road/Galleria Boulevard ramp terminal and Roseville Parkway/Taylor Road intersections, and LOS E is the minimum acceptable LOS for the Galleria Boulevard/Roseville Parkway, Roseville Parkway/Taylor Road, Eureka Road/Taylor Road/I-80 eastbound ramps, and Douglas Boulevard/Harding Boulevard intersections. For all other Roseville intersections, LOS C is the minimum acceptable LOS. These thresholds will be used for both the a.m. and p.m. peak hours in both the construction and design year analysis.

City of Rocklin

For study intersections within the City of Rocklin, the *City of Rocklin General Plan* (Adopted October, 2012), Section C (Circulation Element) Policy C-10 states:

- **A.:** Maintain a minimum traffic Level of Service “C” for all signalized intersections during the p.m. peak hour on an average weekday, except in the circumstances described in C-10.B and C. below.

Based on this standard, LOS C is the minimum acceptable LOS for intersections in the City of Rocklin.

Existing Conditions

Network performance and traffic operations were analyzed for existing (2012) conditions under a.m. and p.m. peak-period and peak-hour conditions.

Existing Network Performance

Table 13 summarizes the overall traffic operations performance of the network. The p.m. peak period has the highest level of travel and delay with the most congestion, lasting up to 3 hours for select segments.

**Table 13. Network Performance Summary—
Existing (2012) Peak Period Conditions**

| Measure of Effectiveness | A.M. Peak Period (6:00 to 10:00) | P.M. Peak Period (3:00 to 7:00) |
|----------------------------|-------------------------------------|------------------------------------|
| Vehicle miles of travel | 645,270 | 730,100 |
| Vehicle hours of travel | 13,760 | 16,850 |
| Vehicle hours of delay | 2,670 | 3,950 |
| Average travel speed (mph) | 46.9 | 43.3 |

Note: mph = miles per hour
Source: Fehr & Peers 2015.

The PM peak period has the highest level of travel and delay with the most congestion lasting up to three hours for some segments.

Arterial Intersection Operations (2012)

Table 14 shows the LOS and average delay under existing (2012) conditions at selected intersections. Based on the evaluation criteria for this study, all of the study intersections operate acceptably.

Table 14. Selected Intersection Operations Results—Existing (2012) Conditions

| Intersection | Threshold | AM Peak Hour | PM Peak Hour |
|-------------------------------------|-----------|--------------|--------------|
| Stanford Ranch Rd / Five Star Blvd | C | B / 19 | C / 32 |
| Stanford Ranch Rd / SR 65 NB Ramps | D | A / 9 | B / 15 |
| Galleria Blvd / SR 65 SB Ramps | D | B / 13 | B / 19 |
| Galleria Blvd / Antelope Creek Dr | C | B / 10 | C / 24 |
| Galleria Blvd / Roseville Pkwy | E | C / 30 | D / 36 |
| Roseville Pkwy / Creekside Ridge Dr | C | A / 6 | B / 17 |

Note: The LOS and average delay in seconds per vehicle are reported.
Source: Fehr & Peers 2015

Freeway Operations (2012)

Detailed freeway operations were analyzed for the entire four-hour AM and PM peak periods. The AM (7:30 to 8:30) and PM (4:30 to 5:30) peak hour results for SR 65 are reported in this section. Selected freeway operation results are shown in Table 15. During the AM peak hour, congested LOS F conditions occur on northbound SR 65 at the I-80 on-ramp and on southbound SR 65 between Blue Oaks Boulevard and Pleasant Grove Boulevard. On northbound SR 65, the merging of the westbound I-80 on-ramp causes congestion. For southbound SR 65, the constraint is the high demand from the mainline combined with the Pleasant Grove Boulevard on-ramp volume.

Table 15. Selected Freeway Operations Results – Existing (2012) Conditions

| Freeway | Location | Type | AM Peak Hour | PM Peak Hour |
|----------|---------------------------------------|---------|----------------------|----------------------|
| NB SR 65 | I-80 WB On-ramp | Merge | <u>F / 53</u> | <u>F / 95</u> |
| | I-80 to Stanford Ranch Rd | Basic | D / 32 | <u>F / 77</u> |
| | Stanford Ranch Rd Off-ramp | Diverge | D / 33 | <u>F / 62</u> |
| SB SR 65 | Blue Oaks Blvd WB On-ramp | Merge | <u>F / 60</u> | B / 20 |
| | Blue Oaks Blvd to Pleasant Grove Blvd | Weave | <u>F / 75</u> | C / 21 |
| | Pleasant Grove Blvd Off to On-ramp | Basic | <u>F / 89</u> | C / 25 |
| | Pleasant Grove Blvd WB On-ramp | Merge | <u>F / 72</u> | D / 31 |
| | Pleasant Grove Blvd EB On-ramp | Merge | <u>F / 53</u> | E / 39 |
| | Pleasant Grove Blvd to Galleria Blvd | Basic | E / 36 | D / 32 |
| | Galleria Blvd Off-ramp | Diverge | E / 35 | D / 32 |

Note: Bold and underline font indicate LOS F conditions. The level of service and average density for the study segment are reported.

Source: Fehr & Peers 2015

Existing Transit Service

Existing transit service in the project area consists of Roseville Transit and Placer County Transit Agency bus lines. Roseville Transit buses include routes M and S, which use Galleria Boulevard-Stanford Ranch Road, and the Sacramento-Roseville commuter bus, which stops nearby. Route M operates Monday through Saturday and Route S operates on weekdays during peak-hours. The Placer County Transit Agency operates the Lincoln/Sierra College route and Auburn to Light Rail route. The Lincoln/Sierra College route uses Galleria Boulevard and operates Monday through Friday. The Auburn to Light Rail Route uses Stanford Ranch Road and operates Monday through Friday. Park & Ride lots also help serve these areas, with one located nearby at the Galleria Transfer Point and one at Antelope Creek.

Environmental Consequences

A traffic impact resulting from the proposed project would occur when first, a study location operates at a worse LOS than the acceptable traffic operating conditions identified above; and second, when the study location operates at a worse condition (higher delay for intersections or higher density for freeway segments) in the Build Alternative than the similar case for the No Build Alternative. The overall network performance is described below and is followed by a comparison of the traffic operations of the Build and No Build alternatives at selected arterial intersections and freeway segments in the project area.

Overall Network Performance

Overall network performance statistics for AM and PM peak period operations are summarized below for the Build and No Build alternatives in both the construction year (2020) and design year (2040).

Construction Year (2020)

The overall network performance results presented in Tables 16 and 17 for the Build and No Build alternative during the construction year (2020) are summarized below.

- The project alternatives would have similar network performance during both peak periods.
- During the AM peak period, the Build Alternative would have better network performance. During the PM peak period, the No Build Alternative would have better performance. However, the difference between alternatives would be small: for example, the difference would be less than 4 percent for vehicle hours of delay.

Table 16. Comparison of Overall Network Performance – Construction Year AM Peak Period

| Performance Measure | Existing Conditions | Construction Year Conditions | |
|---|---------------------|------------------------------|----------------------|
| | | Build Alternative | No Build Alternative |
| Volume Served (% of total demand) | 143,450 (100%) | 168,830 (99%) | 168,790 (99%) |
| Vehicle Miles of Travel (VMT) | 645,270 | 790,180 | 790,330 |
| Person Miles of Travel | 786,260 | 967,760 | 967,610 |
| Vehicle Hours of Travel (VHT) | 13,760 | 18,110 | 18,280 |
| Vehicle Hours of Delay (VHD) (% of VHT) | 2,670 (19%) | 4,550 (25%) | 4,730 (26%) |
| Average Delay per Vehicle (min) | 1.12 | 1.62 | 1.68 |
| Person Hours of Delay | 3,240 | 5,400 | 5,600 |
| Average Speed | 46.9 | 43.6 | 43.2 |
| Average Speed for HOVs | 47.0 | 46.0 | 45.6 |
| Travel Time: Northbound SR 65 from I-80 to Ferrari Ranch Rd | SOV | - | 7:50 |
| | HOV | - | 7:49 |

Source: Fehr & Peers 2015

Table 17. Comparison of Overall Network Performance – Construction Year PM Peak Period

| Performance Measure | Existing Conditions | Construction Year Conditions | |
|--------------------------------------|---------------------|------------------------------|----------------------|
| | | Build Alternative | No Build Alternative |
| Volume Served (% of total demand) | 198,170 (101%) | 234,010 (99%) | 234,150 (99%) |
| Vehicle Miles of Travel (VMT) | 730,100 | 910,000 | 911,110 |
| Person Miles of Travel | 880,180 | 1,124,120 | 1,125,330 |
| Vehicle Hours of Travel (VHT) | 16,850 | 25,960 | 25,690 |

| Performance Measure | | Existing Conditions | Construction Year Conditions | |
|---|-----|---------------------|------------------------------|----------------------|
| | | | Build Alternative | No Build Alternative |
| Vehicle Hours of Delay (VHD) (% of VHT) | | 3,950 (23%) | 9,910 (38%) | 9,620 (37%) |
| Average Delay per Vehicle (min) | | 1.20 | 2.54 | 2.47 |
| Person Hours of Delay | | 4,670 | 11,580 | 11,260 |
| Average Speed | | 43.3 | 35.1 | 35.5 |
| Average Speed for HOVs | | 44.7 | 39.6 | 39.9 |
| Travel Time: Northbound SR 65 from I-80 to Ferrari Ranch Rd | SOV | - | 8:11 | 8:12 |
| | HOV | - | 8:09 | 8:09 |

Source: Fehr & Peers 2015

Design Year (2040)

Overall network performance statistics for AM and PM peak period operations are summarized for each alternative in Tables 18 and 19 below, respectively. The results presented in Tables 18 and 19 are summarized below.

- During the AM peak period, network performance for the Build and No Build Alternatives would be about the same.
- During the PM peak period, the Build Alternative would serve more volume, have a lower delay, and a higher average speed.
- The freeway travel time for northbound SR 65 would be about the same for both alternatives during both peak periods. So, the worse performance during the PM peak period for the No Build Alternative would occur primarily on the local street network.

**Table 18. Comparison of Overall Network Performance –
Design Year AM Peak Period**

| Performance Measure | | Existing Conditions | Design Year Conditions | |
|--|--|---------------------|------------------------|----------------------|
| | | | Build Alternative | No Build Alternative |
| Volume Served (% of total demand) | | 143,450 (100%) | 207,330 (99%) | 207,320 (99%) |
| Vehicle Miles of Travel (VMT) | | 645,270 | 952,570 | 952,460 |
| Person Miles of Travel | | 786,260 | 1,135,940 | 1,135,950 |
| Vehicle Hours of Travel (VHT) | | 13,760 | 22,210 | 22,150 |
| Vehicle Hours of Delay (VHD) (% of VHT) | | 2,670 (19%) | 5,840 (26%) | 5,780 (26%) |
| Average Delay per Vehicle (min) | | 1.12 | 1.69 | 1.67 |
| Person Hours of Delay | | 3,240 | 6,750 | 6,690 |

| | | | | |
|---|-----|------|------|------|
| Average Speed | | 46.9 | 42.9 | 43.0 |
| Average Speed for HOVs | | 47.0 | 45.4 | 45.5 |
| Travel Time: Northbound SR 65 from I-80 to Ferrari Ranch Rd | SOV | - | 7:43 | 7:44 |
| | HOV | - | 7:40 | 7:40 |

Source: Fehr & Peers 2015

**Table 19. Comparison of Overall Network Performance –
Design Year PM Peak Period**

| Performance Measure | Existing Conditions | Design Year Conditions | |
|---|---------------------|------------------------|----------------------|
| | | Build Alternative | No Build Alternative |
| Volume Served (% of total demand) | 198,170 (101%) | 299,720 (99%) | 293,280 (97%) |
| Vehicle Miles of Travel (VMT) | 730,100 | 1,164,190 | 1,148,830 |
| Person Miles of Travel | 880,180 | 1,398,210 | 1,380,140 |
| Vehicle Hours of Travel (VHT) | 16,850 | 30,950 | 34,210 |
| Vehicle Hours of Delay (VHD) (% of VHT) | 3,950 (23%) | 10,500 (34%) | 14,070 (41%) |
| Average Delay per Vehicle (min) | 1.20 | 2.10 | 2.88 |
| Person Hours of Delay | 4,670 | 12,220 | 16,470 |
| Average Speed | 43.3 | 37.6 | 33.6 |
| Average Speed for HOVs | 44.7 | 40.3 | 36.0 |
| Travel Time: Northbound SR 65 from I-80 to Ferrari Ranch Rd | SOV | - | 7:53 |
| | HOV | - | 7:50 |

Source: Fehr & Peers 2015

Arterial Intersection Operations

Construction Year (2020)

Table 20 shows the LOS and average delay at the study intersections under construction year conditions during the AM and PM peak hours. No impacts would occur as a result of the proposed project.

The Stanford Ranch Road/Five Star Boulevard intersection would operate at an unacceptable PM peak hour LOS based on the evaluation criteria under both the Build and No Build project alternatives.

During the AM peak hour, the Build and No Build Alternatives would have similar operations. The study intersections would operate with LOS D or better conditions.

During the PM peak hour, both alternatives would have LOS D conditions at the Stanford Ranch Road/Five Star Boulevard intersection. Since the delay under the Build Alternative would be higher and the LOS exceeds the threshold, the proposed project would result in a significant impact at this intersection.

Table 20. Intersection Operations Results—Construction Year Conditions

| Intersection | Threshold | Build Alternative | | No Build Alternative | |
|-------------------------------------|-----------|-------------------|----------------------|----------------------|----------------------|
| | | AM | PM | AM | PM |
| Stanford Ranch Rd / Five Star Blvd | C | C / 29 | <u>D / 49</u> | C / 29 | <u>D / 48</u> |
| Stanford Ranch Rd / SR 65 NB Ramps | D | B / 13 | B / 12 | B / 17 | B / 12 |
| Galleria Blvd / SR 65 SB Ramps | D | B / 18 | B / 16 | B / 18 | B / 16 |
| Galleria Blvd / Antelope Creek Dr | C | B / 14 | C / 24 | B / 13 | C / 25 |
| Galleria Blvd / Roseville Pkwy | E | D / 36 | E / 55 | D / 38 | E / 59 |
| Roseville Pkwy / Creekside Ridge Dr | C | A / 10 | C / 24 | B / 15 | C / 26 |

Note: Bold and underline font indicate unacceptable operations. Shaded cells indicate a project impact. The LOS and average delay in seconds per vehicle are reported.

Source: Fehr & Peers 2015

Design Year (2040)

Table 21 shows the LOS and average delay at the study intersections under design year conditions during the AM and PM peak hours, respectively. Based on the evaluation criteria for this study, the proposed project would result in one significant impact.

Table 21. Intersection Operations Results—Design Year Conditions

| Intersection | Threshold | Build Alternative | | No Build Alternative | |
|-----------------------------------|-----------|-------------------|----------------------|----------------------|-----------------------|
| | | AM | PM | AM | PM |
| Stanford Ranch Rd/Five Star Blvd | C | C / 25 | <u>E / 57</u> | C / 26 | <u>D / 53</u> |
| Stanford Ranch Rd/SR 65 NB Ramps | D | B / 13 | B / 19 | B / 11 | C / 26 |
| Galleria Blvd/SR 65 SB Ramps | D | C / 22 | C / 20 | C / 23 | <u>F / 133</u> |
| Galleria Blvd/Antelope Creek Dr | C | A / 9 | C / 30 | A / 8 | <u>F / 201</u> |
| Galleria Blvd/Roseville Pkwy | E | D / 46 | <u>F / 86</u> | D / 46 | <u>F / 485</u> |
| Roseville Pkwy/Creekside Ridge Dr | C | A / 8 | <u>D / 48</u> | A / 8 | <u>F / 278</u> |

Note: Bold and underline font indicate unacceptable operations. Shaded cells indicate a project impact. The LOS and average delay in seconds per vehicle are reported.

Source: Fehr & Peers 2015

Freeway Operations

A detailed freeway operations analysis was completed for the peak hour (7:30 to 8:30 AM and 4:30 to 5:30 PM) of the four hour AM and PM peak periods.

Construction Year (2020)

The AM and PM peak hour results for selected locations are reported in Table 22. No impacts would occur as a result of the proposed project.

Table 22. Selected Freeway Operations Results—Construction Year Conditions

| Freeway | Location | Type | Build Alternative | | No Build Alternative | |
|----------|---------------------------------------|---------|----------------------|--------|----------------------|--------|
| | | | AM | PM | AM | PM |
| NB SR 65 | I-80 to Stanford Ranch Rd | Basic | D / 27 | D / 33 | D / 27 | D / 33 |
| | Stanford Ranch Rd Off-ramp | Diverge | C / 24 | C / 26 | C / 24 | C / 25 |
| | Stanford Ranch On-ramp | Merge | D / 31 | D / 34 | D / 32 | D / 34 |
| | Pleasant Grove Blvd Off-ramp | Diverge | E / 36 | E / 39 | E / 37 | E / 38 |
| | Pleasant Grove Blvd to Blue Oaks Blvd | Weave | C / 27 | D / 31 | C / 27 | D / 31 |
| SB SR 65 | Blue Oaks Blvd WB On-ramp | Merge | <u>F / 78</u> | C / 24 | <u>F / 80</u> | C / 24 |
| | Blue Oaks Blvd to Pleasant Grove Blvd | Weave | <u>F / 54</u> | C / 27 | <u>F / 55</u> | C / 27 |
| | Pleasant Grove Blvd WB On-ramp | Merge | D / 30 | C / 26 | D / 30 | C / 27 |
| | Pleasant Grove Blvd EB On-ramp | Merge | D / 29 | C / 26 | D / 29 | C / 26 |
| | Pleasant Grove Blvd to Galleria Blvd | Basic | D / 31 | D / 27 | D / 31 | D / 27 |
| | Galleria Blvd Off-ramp | Diverge | D / 32 | C / 27 | D / 32 | C / 28 |
| | Galleria Blvd On-ramp | Merge | E / 37 | D / 32 | E / 38 | D / 33 |
| | I-80 Off-ramp | Diverge | D / 33 | C / 28 | D / 33 | C / 28 |

Notes: Bold and underline font indicate LOS F conditions. Shaded cells indicate a project impact. The level of service and average density for the study segment are reported.

Source: Fehr & Peers 2015

Northbound SR 65

The freeway operations results indicate that both alternatives would operate with LOS E or better conditions during the AM and PM peak hours north of I-80. Phase I of the I-80/SR 65 Interchange project would eliminate existing bottlenecks in the project area at the westbound I-80 and Stanford Ranch Road on-ramps. Since the traffic analysis for the proposed project assumes that the separate interchange project has been constructed, no congestion would occur under construction year conditions. Since all segments would operate at LOS E or better, no deficiencies would occur on northbound SR 65.

Southbound SR 65

During the AM peak hour, both the build and no-build alternatives would result in a bottleneck at the Pleasant Grove Boulevard off-ramp. LOS F conditions would extend upstream into the Blue Oaks Boulevard westbound on-ramp. Congested conditions would last for about an hour. The density for the Build Alternative would be similar to, but lower than, the No Build Alternative, so no impact would occur.

During the PM peak hour, both alternatives would have LOS D or better conditions, so no impact would occur.

Design Year (2040)

The AM and PM peak hour results for selected locations are reported in Table 23. No impacts would occur as a result of the proposed project.

Table 23. Selected Freeway Operations Results—Design Year Conditions

| Freeway | Location | Type | Build Alternative | | No Build Alternative | |
|----------|--|---------|----------------------|--------|----------------------|--------|
| | | | AM | PM | AM | PM |
| NB SR 65 | I-80 to Stanford Ranch Rd | Weave | C / 27 | D / 33 | C / 27 | D / 32 |
| | Stanford Ranch Rd to Pleasant Grove Blvd | Weave | D / 29 | D / 34 | D / 29 | D / 33 |
| | Pleasant Grove Blvd On-ramp | Merge | D / 31 | D / 34 | D / 31 | D / 33 |
| | Blue Oaks Blvd Off-ramp | Diverge | C / 28 | D / 32 | C / 28 | D / 31 |
| SB SR 65 | Blue Oaks Blvd WB On-ramp | Merge | D / 33 | C / 28 | D / 33 | C / 28 |
| | Blue Oaks Blvd EB On-ramp | Merge | D / 31 | C / 27 | D / 31 | C / 27 |
| | Pleasant Grove Blvd Off-ramp | Diverge | D / 31 | C / 28 | D / 31 | C / 28 |
| | Pleasant Grove Blvd WB On-ramp | Merge | <u>F / 48</u> | D / 31 | <u>F / 50</u> | D / 31 |
| | Pleasant Grove Blvd EB On-ramp | Merge | <u>F / 46</u> | D / 32 | <u>F / 47</u> | D / 32 |
| | Pleasant Grove Blvd to Galleria Blvd | Basic | E / 37 | D / 34 | E / 37 | D / 34 |
| | Galleria Blvd Off-ramp | Diverge | D / 33 | D / 32 | D / 33 | D / 32 |
| | Galleria Blvd to I-80 | Weave | D / 31 | D / 28 | D / 30 | D / 28 |

Notes: Bold and underline font indicate LOS F conditions. Shaded cells indicate a project impact. The level of service and average density for the study segment are reported.

Source: Fehr & Peers 2015

Northbound SR 65

The freeway operations results indicate that both the Build and the No Build alternatives would operate with LOS D or better conditions during the AM and PM peak hours. The SR 65 Capacity and Operational Improvements project would eliminate existing bottlenecks in the project area. The traffic analysis for the proposed project assumes that the SR 65 Capacity and Operational Improvements project will already be constructed, therefore no congestion would occur under design year conditions. Since all segments would operate at LOS D or better, no deficiencies would occur on northbound SR 65.

Southbound SR 65

During the AM peak hour, both the Build and the No Build alternatives would result in a bottleneck at the Pleasant Grove Boulevard eastbound on-ramp. LOS F conditions would extend upstream into the Pleasant Grove Boulevard interchange. Congested conditions would last for about 30 minutes. The density for the Build Alternative would be similar to, but lower than, the No Build Alternative, so no impact would occur.

During the PM peak hour, both the Build and the No Build alternatives would result in LOS D or better conditions, so no project impact would occur.

Mitigation Measures

Implementation of the following mitigation measure as an addition to the project will reduce impacts to less-than-significant levels.

Measure 9: Regional Coordination for Transportation Improvements

The *Transportation Analysis Report* prepared for the project assumed modifications to the existing transportation network according to improvement projects anticipated to be constructed by the construction (2020) and design (2040) years (refer to *Transportation Analysis Report* Figures 3 and 4). These projects are based on the financially constrained project list contained in the 2035 MTP/SCS, but also consider projects the project development team agreed would likely be constructed by the design year (2040).

The rationale for adding projects to the MTP/SCS list was that the design year is five years beyond the 2035 horizon of the MTP/SCS. This creates a longer timeframe for revenue to accumulate. Further, the additional socioeconomic growth added to the model would also be contributing to transportation revenue to help pay for these improvements.

Based on results from the *Transportation Analysis Report*, it was determined that even with transportation improvements assumed through year 2040, the following specific location in the project area may operate below acceptable thresholds.

- Stanford Ranch Road/Five Star Boulevard Intersection

The project impact at Stanford Ranch Road/Five Star Boulevard may potentially be mitigated by changes in signal timing since the average delay is only 4 seconds higher than the No Build Alternative. If signal timing does not achieve the desired reduction in delay, modifying the intersection to allow right turns from the middle lane on eastbound Five Star Boulevard may reduce intersection delay without affecting pedestrian safety since no conflicting crosswalk exists for this turning movement.

The improvement identified above is preliminary and needs further study, including inclusion in the Placer County Regional Transportation Plan and SACOG MTP/SCS, environmental clearance and public outreach, project approval from Caltrans and/or FHWA, project design, and potential right of way acquisition, before the improvement can be constructed and open to the traveling public.

The need for additional transportation improvements after year 2040 is based on growth in traffic demand from development over a wide area. Jurisdictions in Placer County currently have traffic impact fee programs both at the local jurisdiction and regional county levels. Traffic impact fees on new development are a potential source of funding for the above identified improvements. Placer County has a history of planning for both local and regional transportation improvements, including the South Placer Regional Transportation Authority (<http://pctpa.net/sprta/>). Caltrans,

PCTPA, and local jurisdictions continuously update and add new projects that are identified to accommodate future population and employment growth. The specific improvement identified above, which is within the City of Rocklin, will be addressed as part of current ongoing projects, capital improvement program updates, and traffic impact fee updates.

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- Jason Lee, Air Quality Specialist, Air Quality oversight
- Jason Meigs, Biologist, Biology/Wetlands oversight
- Mark Melani, Hazardous Materials/Waste Specialist, Hazardous Materials/Waste oversight
- Darrell Naruto, Transportation Engineer, Water Quality oversight
- Saied Zandian, Noise Specialist, Noise oversight

Placer County Transportation Planning Agency

- Celia McAdam, AICP, Executive Director
- Luke McNeel-Caird, P.E., Senior Planner/Engineer

City of Roseville

- Rhon Herndon, P.E, Public Works Director
- Scott Gandler, P.E., Senior Civil Engineer, Public Works Department

City of Rocklin

- Dave Palmer, P.E., City Engineer

Placer County

- Matt Randall, P.E., Civil Engineer, Public Works Department

ICF International

- Maggie Townsley, Project Director
- Claire Bromund, Senior Project Manager, Transportation/Traffic
- Tina Sorvari, Project Coordinator, Hazardous Waste/Materials, Hydrology/Water Quality
- Darrin Trageser, Climate Change

Public Comments and Responses

The initial study and proposed mitigated negative declaration were available for public review for a 30-day period starting March 7, 2016, and ending April 6, 2016. During the comment period, printed copies of the initial study and proposed mitigated negative declaration, as well as the related technical studies, were available for review at the Placer County Transportation Planning Agency's offices at 299 Nevada Street, Auburn, CA 95603, Caltrans' District 3 offices located at 2379 Gateway Oaks Drive, Suite 150, Sacramento, CA 95833 and at the library locations listed below.

| | | |
|--|--|---|
| Rocklin Library 4890 Granite Drive Rocklin, CA 95677 | Martha Riley Library 1501 Pleasant Grove Blvd. Roseville, CA 95747 | Auburn Library 350 Nevada Street Auburn, CA 95603 |
|--|--|---|

A public hearing was held to present the project and solicit comments on the initial study and proposed mitigated negative declaration. The hearing was on Wednesday, March 23, 2016 at 9:00 a.m. at Placer County Board of Supervisors Chambers located at 175 Fulweiler Avenue, Auburn, CA 95603.

A total of 5 comment letters/emails regarding the initial study and proposed mitigated negative declaration were received from the entities listed below.

Table 24. List of Individuals and Agencies Commenting on the Initial Study/Proposed Mitigated Negative Declaration

| Commenter | Format of Comment (letter, email, hearing) | Date Comment Received |
|---|---|--------------------------|
| Mark Talbot | Email | 3/11/2016 |
| Central Valley Regional Water Quality Control Board | Letter | 3/30/2016 |
| California Department of Fish and Wildlife | Email | 4/4/2016 |
| South Placer Municipal Utility District | Letter | 4/4/2016 |
| City of Roseville | Letter | 4/5/2016 |
| State Clearinghouse | Letter | 4/6/2016 |

On the following pages are copies of the comment letters and responses to each comment. The comment letters are included in the order shown in Table 24.

Mark Talbot

From: Mark Talbot [mailto:1800askmark@gmail.com]
Sent: Friday, March 11, 2016 10:15 AM
To: Lastufka, Ken G@DOT
Subject: Galleria Boulevard/Stanford Ranch Road/SR 65 Northbound Ramps

Mr. Lastufka,

I am writing in opposition of the planned project as it fails to address the already snarled traffic on Stanford Ranch Road at the intersections of Five Star and Fairway. Adding more lanes to off load Hwy 65 traffic onto Stanford Ranch road will only make the situation worse. Public safety is already at risk with blocked intersections and red light violations. While worse on weekends the crazy mid-day work week traffic will only be made worse. If this project goes through without addressing traffic signalization at these two intersections coupled with active traffic enforcement someone will be seriously injured or worse.

Best regards,

Mark Talbot
6612 Big Bend Drive
Roseville, CA 95678

Responses to Mark Talbot

Response to Comment

Safety benefits of the proposed project include the following: controlling the weaving traffic northbound on Stanford Ranch Road between SR 65 and Five Star Boulevard; increasing northbound left turn capacity to reduce queues at the northbound SR 65 on-ramp; reconfiguring northbound Stanford Ranch Road to not “trap” the left lane to turn left; and, realigning the northbound SR 65 loop off-ramp to slow vehicle speed at the pedestrian crossing. Please also refer to the traffic section in the Initial Study.

Central Valley Regional Water Quality Control Board



Central Valley Regional Water Quality Control Board

30 March 2016

Kendall Schinke
California Department of Transportation
2379 Gateway Oaks Drive, Suite 150
Sacramento, CA 95833

CERTIFIED MAIL
91 7199 9991 7035 8364 4677

COMMENTS TO REQUEST FOR REVIEW FOR THE MITIGATED NEGATIVE DECLARATION, GALLERIA BOULEVARD/STANFORD RANCH ROAD/SR 65 NORTHBOUND RAMPS IMPROVEMENT PROJECT, SCH# 2016032019, PLACER COUNTY

Pursuant to the State Clearinghouse's 7 March 2016 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Mitigated Negative Declaration* for the Galleria Boulevard/Stanford Ranch Road/ SR 65 Northbound Ramps Improvement Project, located in Placer County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

I. Regulatory Setting

Basin Plan

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by the State Water Resources Control Board (State Water Board), Office of Administrative Law (OAL) and in some cases,

KARL E. LONGLEY SCD, P.E., CHAIR | PAMELA C. CREEDON P.E., BCEE, EXECUTIVE OFFICER
11020 Sun Center Drive #200, Rancho Cordova, CA 95670 | www.waterboards.ca.gov/centralvalley



Central Valley Regional Water Quality Control Board

Galleria Boulevard/Stanford Ranch Road/ - 2 -
SR 65 Northbound Ramps Improvement
Placer County

30 March 2016

the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues.

For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:

http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/.

Antidegradation Considerations

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Policy is available on page IV-15.01 at:

http://www.waterboards.ca.gov/centralvalleywater_issues/basin_plans/sacsjr.pdf

In part it states:

Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.

This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

II. Permitting Requirements

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan

Central Valley Regional Water Quality Control Board

Galleria Boulevard/Stanford Ranch Road/
SR 65 Northbound Ramps Improvement
Placer County - 3 -

30 March 2016

(SWPPP).

For more information on the Construction General Permit, visit the State Water Resources Control Board website at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml.

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits¹

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/.

For more information on the Caltrans Phase I MS4 Permit, visit the State Water Resources Control Board at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/caltrans.shtml.

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml.

Industrial Storm Water General Permit

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 2014-0057-DWQ.

For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml.

Clean Water Act Section 404 Permit

¹ Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

Central Valley Regional Water Quality Control Board

Galleria Boulevard/Stanford Ranch Road/ - 4 -
SR 65 Northbound Ramps Improvement
Placer County

30 March 2016

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACOE). If a Section 404 permit is required by the USACOE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements.

If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACOE at (916) 557-5250.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACOE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications.

Waste Discharge Requirements – Discharges to Waters of the State

If USACOE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation.

For more information on the Water Quality Certification and WDR processes, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/help/business_help/permit2.shtml.

Dewatering Permit

If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Risk General Order) 2003-0003 or the Central Valley Water Board's Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Risk Waiver) R5-2013-0145. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Risk General Order and the application process, visit the Central Valley Water Board website at:

Central Valley Regional Water Quality Control Board

Galleria Boulevard/Stanford Ranch Road/ - 5 -
SR 65 Northbound Ramps Improvement
Placer County

30 March 2016

http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

For more information regarding the Low Risk Waiver and the application process, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2013-0145_res.pdf

Regulatory Compliance for Commercially Irrigated Agriculture

If the property will be used for commercial irrigated agricultural, the discharger will be required to obtain regulatory coverage under the Irrigated Lands Regulatory Program. There are two options to comply:

1. **Obtain Coverage Under a Coalition Group.** Join the local Coalition Group that supports land owners with the implementation of the Irrigated Lands Regulatory Program. The Coalition Group conducts water quality monitoring and reporting to the Central Valley Water Board on behalf of its growers. The Coalition Groups charge an annual membership fee, which varies by Coalition Group. To find the Coalition Group in your area, visit the Central Valley Water Board's website at: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/for_growers/apply_coalition_group/index.shtml or contact water board staff at (916) 464-4611 or via email at IrrLands@waterboards.ca.gov.
2. **Obtain Coverage Under the General Waste Discharge Requirements for Individual Growers, General Order R5-2013-0100.** Dischargers not participating in a third-party group (Coalition) are regulated individually. Depending on the specific site conditions, growers may be required to monitor runoff from their property, install monitoring wells, and submit a notice of intent, farm plan, and other action plans regarding their actions to comply with their General Order. Yearly costs would include State administrative fees (for example, annual fees for farm sizes from 10-100 acres are currently \$1,084 + \$6.70/Acre); the cost to prepare annual monitoring reports; and water quality monitoring costs. To enroll as an Individual Discharger under the Irrigated Lands Regulatory Program, call the Central Valley Water Board phone line at (916) 464-4611 or e-mail board staff at IrrLands@waterboards.ca.gov.

Low or Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Dewatering and Other Low Threat Discharges to*

Central Valley Regional Water Quality Control Board

Galleria Boulevard/Stanford Ranch Road/
SR 65 Northbound Ramps Improvement
Placer County

30 March 2016

Surface Waters (Low Threat General Order) or the General Order for Limited Threat Discharges of Treated/Untreated Groundwater from Cleanup Sites, Wastewater from Superchlorination Projects, and Other Limited Threat Wastewaters to Surface Water (Limited Threat General Order). A complete application must be submitted to the Central Valley Water Board to obtain coverage under these General NPDES permits.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2013-0074.pdf

For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2013-0073.pdf

If you have questions regarding these comments, please contact me at (916) 464-4644 or Stephanie.Tadlock@waterboards.ca.gov.



Stephanie Tadlock
Environmental Scientist

cc: State Clearinghouse unit, Governor's Office of Planning and Research, Sacramento

Responses to Central Valley Regional Water Quality Control Board

Response to Regulatory Setting, Basin Plan

The Hydrology and Water Quality section contains the pertinent regulatory and Basin Plan information.

Response to Regulatory Setting, Antidegradation Considerations

The Hydrology and Water Quality section contains a discussion of surface and ground water quality. The proposed project would comply with the NPDES and Waste Discharge Requirements as detailed under the subsection, Required Temporary Best Management Practices.

Response to Permitting Requirements, Construction Storm Water General Permit

As discussed in the Hydrology and Water Quality section, the proposed project would disturb more than 1 acre of ground. The sub section, Required Temporary Best Management Practices, includes the measure *Required Temporary Best Management Practices* and discusses obtaining an NPDES General Construction Permit. The project will comply with all requirements of the Construction General Permit (Order No. 2009-0009-DWQ).

Response to Permitting Requirements, Phase I and II Municipal Separate Storm Sewer System (MS4) Permits

The project will comply with requirements of Caltrans' MS4 Permit as discussed in the subsection, *Required Temporary Best Management Practices*, of the Hydrology and Water Quality section.

Response to Permitting Requirements, Industrial Storm Water General Permit

The project does not include industrial sites.

Response to Permitting Requirements, Clean Water Act Section 404 Permit

The proposed project would require a Section 404 Permit. The permit is listed under Description of Project, Table 1, *Permits and Approvals Needed*.

Response to Permitting Requirements, Clean Water Act Section 401 Permit—Water Quality Certification

The proposed project would require a Section 401 Permit. The permit is listed under Description of Project, Table 1, *Permits and Approvals Needed*.

Response to Permitting Requirements, Waste Discharge Requirements—Discharges to Waters of the State

There are USACE jurisdictional waters in the proposed project area. A preliminary jurisdictional determination of wetlands and other waters of the U.S. was verified by the USACE on November 13, 2015.

Response to Permitting Requirements, Dewatering Permit

It is not known if the proposed project will require dewatering. If dewatering becomes necessary, discharge from dewatering operations and runoff from disturbed areas will conform to the water quality requirements of the waste discharge permit issued by the Central Valley RWQCB (General Order R5-2013-0074).

Response to Permitting Requirements, Regulatory Compliance for Commercially Irrigated Agriculture

The project does not include commercially irrigated agriculture.

Response to Permitting Requirements, Low or Limited Threat General NPDES Permit

It is not known if the proposed project will require dewatering. If dewatering becomes necessary, the proposed project would obtain an NPDES permit per Caltrans' requirements. The project will comply with all requirements of the Construction General Permit (Order No. 2009-0009-DWQ).

From: Torres, Juan@Wildlife
Sent: Monday, April 04, 2016 11:16 AM
To: Schinke, Kendall@DOT
Subject: IS/MND for Galleria Blvd./Stanford Ranch Road/SR 65 Northbound Ramps Improvements Project EA 03-0H560

Hi Kendall,

The Department reviewed the IS/MND for the Galleria Blvd./Stanford Ranch Road/SR 65 Northbound Ramps Improvements Project and we do not have any comments.

If you have any questions please let me know.

Juan Lopez Torres
Senior Environmental Scientist (Specialist)

CALIFORNIA DEPARTMENT OF
FISH and WILDLIFE 
NORTH CENTRAL REGION
HABITAT CONSERVATION PROGRAM
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95670
Office: (916) 358-2951
Fax: (916) 358-2912
Juan.Torres@wildlife.ca.gov
www.wildlife.ca.gov

Responses to California Department of Fish and Game

Response to Comment

CDFW's response with no comments on the proposed mitigated negative declaration is noted.

South Placer Municipal Utility District



**SOUTH PLACER
MUNICIPAL UTILITY DISTRICT**

April 4, 2016

Kendall Schinke
Environmental Branch Chief
Caltrans District 3 South
2379 Gateway Oaks Drive, Suite 150
Sacramento, CA 95833

**SUBJECT: Galleria Boulevard / Stanford Ranch Road / SR 65 Northbound Ramps Improvement Project
Initial Study with Proposed Mitigated Negative Declaration**

Dear Mr. Schinke,

Thank you for the opportunity to provide comments regarding the Galleria Boulevard / Stanford Ranch Road / SR 65 Northbound Ramps Improvement Project.

South Placer Municipal Utility District (SPMUD) provides sewer collection services to the communities of Rocklin, Loomis, Rodgersdale, Penryn, and Newcastle. SPMUD has facilities within the project limits, located near the intersection of Stanford Ranch Road and Five Star Boulevard. SPMUD will gladly make information (e.g., record drawings) available to the design team upon request.

Work around/to any SPMUD facilities will need to be done according to SPMUD standards and under the inspection of SPMUD representatives. I also respectfully request that SPMUD have an opportunity to review the improvement plans for this project during the design phase to ensure the protection of SPMUD facilities.

Should you require additional information, please feel free to contact me at either 916-786-8555; 310 or enielsen@spmud.ca.gov.

Very Truly Yours,

A handwritten signature in black ink that reads "Eric Nielsen".

Eric Nielsen, P.E.
District Engineer

Cc: Carie Huff, P.E., Associate Engineer

5807 SPRINGVIEW DRIVE • ROCKLIN, CA 95677 • PHONE (916) 786-8555 • FAX (916) 786-8553

Responses to South Placer Municipal Utility District

Response to Comment

Advance notification and coordination will occur with the South Placer Municipal Utility District prior to and during construction. The project proponent will consult with utility service providers, including SPMUD, regarding utilities affected by the proposed project. At that time, specific design details will be coordinated.



City Manager
311 Vernon Street
Roseville, California 95678-2649

April 5, 2016

Mr. Ken Lastufka
Caltrans District 3 South
2379 Gateway Oaks Drive, Suite 150
Sacramento, CA 95833

Via: *Email and Regular Mail*

Ken_Lastufka@dot.ca.gov
Page 1 of 1

Subject: Initial Study/Mitigated Negative Declaration for the Galleria Boulevard/Stanford Ranch Road/SR 65 North Bound Ramps Improvements Project – City of Roseville Comments

Dear Mr. Lastufka:

Thank you for the opportunity to provide comment on the subject project IS/MND. The City of Roseville supports Caltrans' efforts to implement this important transportation improvement project. City concerns are primarily related to emergency access to Highway 65 as discussed below.

Initial Study Section XIV. Public Services addresses fire and police services. The checklist identifies "no impact" to emergency service providers. Roseville fire is often the first emergency medical responder for incidents on SR 65 in the Roseville area. During an emergency it's important that emergency vehicle access to the freeway is maintained. This is particularly essential when the on-ramp meter light is operating and/or during other periods of on-ramp congestion when vehicle stacking occurs. To ensure response times are not adversely affected by the project, Roseville Fire requests the project design accommodate a 14 foot-wide emergency vehicle through pathway, either on the outer portion of the on-ramp pavement, along the on-ramp shoulder, or by using a combination of the two. If the shoulder is used it shall be capable of supporting a maximum gross load of 65,000 pounds.

Thank you for consideration of the City's comments. Should you have any questions, don't hesitate to contact Patrick Chew, Roseville Fire Inspection Supervisor at 774-5823.

Sincerely,

A handwritten signature in blue ink that reads "Mark Morse".

Mark Morse
Environmental Coordinator

Responses to City of Roseville

Response to Comment

Current design plans for the on-ramp include 30-feet (at the tightest point) to approximately 55-feet of pavement (at approximately the location of the metering signal at station 84+64). While Caltrans does not typically provide for an emergency bypass, it is assumed that an emergency vehicle would use either the inside HOV bypass lane plus inside shoulder (16-feet) or borrow from the outside lane plus outside shoulder (6 feet of lane + the 8-foot shoulder). Either of these areas would provide the 14-foot-wide emergency vehicle through pathway being requested by Roseville Fire.

Governor's Office of Planning and Research, State Clearinghouse and Planning Unit



Edmund G. Brown Jr.
Governor

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



Ken Alex
Director

April 6, 2016

Kendall Schinke
California Department of Transportation, District 3
2379 Gateway Oaks Drive, Suite 150
Sacramento, CA 95833

Subject: Galleria Boulevard/Stanford Ranch Road/SR 65 Northbound Ramps Improvement Project
SCH#: 2016032019

Dear Kendall Schinke:

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on April 5, 2016, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Governor's Office of Planning and Research, State Clearinghouse and Planning Unit

**Document Details Report
State Clearinghouse Data Base**

SCH# 2016032019
Project Title Galleria Boulevard/Stanford Ranch Road/SR 65 Northbound Ramps Improvement Project
Lead Agency Caltrans #3

Type MND Mitigated Negative Declaration
Description Caltrans, in cooperation with the Placer County Transportation Planning Agency, Placer County, and the Cities of Roseville and Rocklin, proposes to improve the Galleria Blvd./Stanford Ranch Road/SR65 northbound ramps. The purpose of the project is to reduce current and future traffic congestion, improve operations and safety, and comply with current Caltrans and local agency design standards. The project limits consist of SR 65 at the Galleria Blvd./Stanford Ranch Road Interchange (post mile) R5.4 to R6.4) and along Galleria Blvd./Stanford Ranch Road between Five Star Blvd. and the SR 65 southbound ramps intersection. The total length of the project is 0.4 mile along Galleria Blvd./Stanford Ranch Road.

Lead Agency Contact

Name Kendall Schinke
Agency California Department of Transportation, District 3
Phone 916-274-0610 **Fax**
email
Address 2379 Gateway Oaks Drive, Suite 150
City Sacramento **State** CA **Zip** 95833

Project Location

County Placer
City Rocklin, Roseville
Region
Lat / Long 38° 46' 41" N / 121° 15' 57" W
Cross Streets Galleria Blvd./Stanford Ranch Road and SR 65
Parcel No. Various

| Township | Range | Section | Base |
|----------|-------|---------|------|
|----------|-------|---------|------|

Proximity to:

Highways I-80, SR 65
Airports
Railways
Waterways Antelope Creek
Schools Various
Land Use Roseville:Community Commercial, Business Professional, Regional Commercial, Rocklin: Retail Commercial

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Flood Plain/Flooding; Geologic/Seismic; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Landuse; Cumulative Effects

Reviewing Agencies Resources Agency; Department of Fish and Wildlife, Region 2; Department of Parks and Recreation; Department of Water Resources; California Highway Patrol; Caltrans, District 3 N; Air Resources Board; State Water Resources Control Board, Division of Water Quality; Regional Water Quality Control Bd., Region 5 (Sacramento); Department of Toxic Substances Control; Native American Heritage Commission; Public Utilities Commission

Date Received 03/07/2016 **Start of Review** 03/07/2016 **End of Review** 04/05/2016

Responses to Governor's Office of Planning and Research, State Clearinghouse and Planning Unit

Response to Comment

Letter indicates the distribution of the Mitigated Negative Declaration by the State Clearinghouse to the agencies indicated on the Document Details Report. A copy of the letter from the Central Valley Regional Water Quality Control Board is attached following the Document Details Report. Responses to the Central Valley Regional Water Quality Control Board letter are included with the original copy received on March 30, 2016.