

State Route 70 - Segment 3 Corridor Improvement Project

BUTTE AND YUBA COUNTIES, CALIFORNIA
DISTRICT 3–BUT–70 (PM 0/3.80), YUB–70 (PM 25.5/25.8)
3H930-10200000205 /3F282 - 10200000206

Initial Study with Proposed Mitigated Negative Declaration/ Environmental Assessment

Public Draft



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

The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 USC 327 and the Memorandum of Understanding dated December 23, 2016 and executed by FHWA and Caltrans.



February 2018

General Information about This Document

What's in this document:

The California Department of Transportation (Department), as assigned by the Federal Highway Administration (FHWA), has prepared this Initial Study/Environmental Assessment (IS/EA), which examines the potential environmental impacts of the alternatives being considered for the proposed project located in San Luis Obispo County, California. The Department is the lead agency under the National Environmental Policy Act (NEPA). The Department is the lead agency under the California Environmental Quality Act (CEQA). The document tells you why the project is being proposed, what alternatives we have considered for the project, how the existing environment could be affected by the project, the potential impacts of each of the alternatives, and the proposed avoidance, minimization, and/or mitigation measures.

What you should do:

- Please read this document.
- Additional copies of this document and the related technical studies are available for review at the Caltrans District 3 Office, 703 B Street, Marysville, CA 95901. This document may be downloaded at the following website <https://dot.ca.gov/caltrans-near-me/district-3/d3-programs/d3-environmental-planning/d3-environmental-docs>.
- We'd like to hear what you think. If you have any comments about the proposed project, please attend the **open forum hearing** on **December 11, 2019** at the ***Feather River Adventist School at 27 Cox Ln, Oroville, CA 95965***;
- and/or send **written comments** to the Department by the deadline: **January 3, 2020**
- Send comments via postal mail to:

North Region Environmental Division
Department of Transportation, District 3
703 B Street, Marysville, CA 95901
Attn: Michael Ferrini
- Send comments via email to: michael.ferrini@dot.ca.gov.

What happens next:

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

Alternative Formats:

For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Department of Transportation, Attn: Michael Ferrini, Environmental Planning, 703 B Street, Marysville, CA 95901; (530) 741-4324 (Voice) or use the California Relay Service 1 (800) 735-2929 (TTY), 1 (800) 735-2929 (Voice) or 711.


State Route 70 Widening and Safety Corridor Project,
Segment 3 (Honcut Creek), Butte/Yuba Counties, Postmile
25.3 in Yuba County to the Butte County Line, Butte County
Line to Postmile 3.8 in Butte County

**INITIAL STUDY with Proposed Mitigated Negative
Declaration/Environmental Assessment with Finding of No Significant
Impact**

Submitted Pursuant to: (State) Division 13, California Public Resources Code
(Federal) 42 USC 4332(2)(C), 49 USC 303, and/or 23 USC 138

THE STATE OF CALIFORNIA
Department of Transportation

12/2/19
Date


Kelly McNally (Acting)
Division Chief - North Region Environmental
California Department of Transportation District 03
NEPA Lead Agency

PROPOSED MITIGATED NEGATIVE DECLARATION

Pursuant to: Division 13, Public Resources Code

Project Description

Caltrans proposes to widen SR 70 from a two-lane highway to five-lane facility with a paved center two-way-turn lane (TWTL) median for approximately 4.0 miles north of the existing Honcut bridges. At Honcut Creek, a new two-lane bridge structure will be constructed to span the flood plain over the levee prism and provide additional lanes of southbound traffic. The existing bridges will be converted to northbound-only traffic.

The project proposes to acquire 28.7 acres of right of way. Caltrans further proposes to provide mitigation for riparian take within the levee prism (approximately 1 acre) and for greenhouse gas effect/offset as a result of highway widening and increased capacity.

Determination

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

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


The proposed project would have **no impact** on Land Use, Coastal Zone, Wild and Scenic Rivers, Recreation, Geology/Soils/Seismic/Topography, Mineral Resources, Noise, Hazards and Hazardous materials, Visual Aesthetics, Energy, and Wildfire.

The proposed project would have **less than significant impact** on Tribal-Cultural Resources, Hydrology and Water Quality, Air Quality, Population and Housing, Public Services, Agriculture and Forest Resources, Transportation/Traffic, Utilities and Service Systems,

The proposed project under mandatory findings of significance would have **less than significant impact with mitigation incorporated** on Biological Resources, Greenhouse Gas, and Climate Change.



KELLY MCNALLY, Chief (Acting)
Environmental Services North Region



Date

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NEPA Assignment

California participated in the “Surface Transportation Project Delivery Pilot Program” (Pilot Program) pursuant to 23 USC 327, for more than five years, beginning July 1, 2007, and ending September 30, 2012. MAP-21 (P.L. 112-141), signed by President Obama on July 6, 2012, amended 23 USC 327 to establish a permanent Surface Transportation Project Delivery Program. As a result, the Department entered into a Memorandum of Understanding pursuant to 23 USC 327 (NEPA Assignment MOU) with FHWA. The NEPA Assignment MOU became effective October 1, 2012, and was renewed on December 23, 2016 for a term of five years. In summary, the Department continues to assume FHWA responsibilities under NEPA and other federal environmental laws in the same manner as was assigned under the Pilot Program, with minor changes. With NEPA Assignment, FHWA assigned and the Department assumed all of the United States Department of Transportation (USDOT) Secretary's responsibilities under NEPA. This assignment includes projects on the State Highway System and Local Assistance Projects off of the State Highway System within the State of California, except for certain categorical exclusions that FHWA assigned to the Department under the 23 USC 326 CE Assignment MOU, projects excluded by definition, and specific project exclusions.

The California Department of Transportation (Department), as assigned by the Federal Highway Administration (FHWA), is the lead agency under the National Environmental Policy Act (NEPA). The Department is the lead agency under the California Environmental Quality Act (CEQA).

1. Chapter 1 – Project Description

1.1. INTRODUCTION

The proposed project is subject to state and federal environmental review requirements because of the proposed use of federal funds from the Federal Highway Administration (FHWA). Accordingly, project documentation is being prepared in compliance with the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). Caltrans is the lead agency under NEPA and CEQA. The proposed project is included in the BCAG 2012 Metropolitan Transportation Plan/Sustainable Communities Strategy and the 2015 cost-constrained Federal Transportation Improvement Plan (FTIP), Amendment 7. The proposed project is also referenced in BCAG's 2016 Regional Transportation Plan/Sustainable Communities Strategy, adopted in December 2016. The proposed project was approved by the Federal Highway Administration (FHWA) as a State Highway Operation and Protection Program (SHOPP) and later consolidated with the State Transportation Improvement Program (STIP) under the Butte County Association of Governments (BCAG) FSTIP Amendment #9 adopted November 5, 2018.

California State Route 70 (SR 70) is one of two primary north-south transportation corridors through the northeast portion of the Sacramento Valley in Yuba, Sutter and Butte Counties. SR 70 primarily serves as the link between the major population centers of Sacramento, Marysville, and Chico/Oroville along the Feather River where it turns east toward the mountain communities of Quincy and Portola in Plumas County.

SR 70 in the Sacramento Valley has served mostly rural and agricultural farmland for more than a century. The segment between Sacramento and Oroville (originally Route 87) was added to the State Highway System in 1933. Route 232 (the segment south of Marysville to Sacramento) was adopted into the Freeway and Expressway System in 1959. In 1964 the entire Route 232 and Route 87 were combined and renumbered State Route 70 between Sacramento and Oroville.

In 1998, SR 70 was identified as 1 of 34 High Emphasis Routes of particular importance from a statewide perspective. As a subset of High Emphasis Routes, SR 70 was further designated as 1 of 10 Focus Routes in California (A Focus Route designation represents the Interregional Road System (IRRS) corridors that are of the highest priority to be upgraded to freeway or expressway standard during a 20-year planning horizon of the Interregional Transportation Strategic Plan (ITSP)).

Traffic safety and improved circulation were identified as concerns. Several alternatives were proposed and studied, including highway widening, highway realignment, new freeway construction, a Marysville bypass, and safety features.

These studies are as follows:

- *Route Concept Report (1986) (BCAG/SACOG/Caltrans)*
- *State Routes 70 and 99 Corridor Study (1990)*
- *Marysville By-pass to Oroville Freeway Project (PSR - 1993)*
- *State Routes 70 and 99 Major Investment Study (1995)*
- *Interregional Transportation Strategic Plan (1998) *SR70 identified as a “high emphasis, focus route.”*
- *Marysville By-pass Value Analysis Study (2001)*
- *Project Study Report-Project Development Support (2013)*
- *Transportation Concept Report SR70 (2014)*

The 2014 Transportation Corridor Concept Report (TCR) was the latest study to identify the need to widen the proposed corridor to 4-lanes to reflect the concept facility proposed in the PSR (PDS) of 2013.

Since then however, increasing safety concerns over higher than average statewide collision and fatality incidents have prompted priority project funding and programming to improve corridor safety. The State Route 70 Corridor Improvements Project would provide continuous passing opportunities between Marysville and Oroville, thereby increasing safety while decreasing travel times between those cities.

1.1.1. Project Purpose

The purpose of the proposed project is to address safety concerns along the corridor and provide continuous passing opportunities between Marysville and Oroville. The project will also provide additional capacity that will support approved and planned development in Butte County and will support the growing economic sectors along the SR70 Corridor. Improved travel times along the corridor will result in greater reliability and efficiencies for goods movements, provide better connectivity between Butte County and the Sacramento Valley, and will support the overall economic viability of the Butte County region. The project will improve traffic operations and safety in these segments of the highway.

A widened facility will decrease travel times between Oroville and Marysville and provide improved reliability for regional and local users. Improved reliability along SR 70 will improve the

connectivity between Butte County and greater Sacramento Valley, and support the growing economic sectors in Oroville and the surrounding areas. This project will help sustain the economic growth in Oroville and will improve the overall economic viability of the Butte County region.

1.1.2. Project Need

The project is needed because there are operational and safety concerns along the corridor. Portions of the corridor show higher than average accident rates, and higher accident densities have been observed at major intersections. A majority of the accidents can be attributed to the lack of passing opportunities throughout the 24-mile corridor. The highway is currently operating at acceptable Level of Service; anticipated population growth and development along the corridor is anticipated to increase traffic levels, which would further degrade the operations and safety along SR70 in a no build scenario.

An additional project need is based upon economics and goods movements along the corridor. The largest industries in the Oroville area are “highway dependent,” and require reliable access to and from SR70. It has been observed that goods movements within the regional and local supply chain can be heavily affected by the highway conditions. Improved reliability of the SR70 corridor is needed to prevent lost revenues of local industries due to accidents or operational deficiencies. Furthermore, improved travel times are needed to improve regional connectivity and the overall economic viability of the Butte County region.

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

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

The project alternatives will address the purpose and need even without additional improvements; therefore the project has independent utility. The project also connects logical termini in that the area studied encompasses a broad enough area to fully address environmental issues.

The proposed project would connect to two projects. In the summer of 2020, EA 03-3H720/03-3F281 the Palermo Cox Safety and Passing Lane project, will construct a five-lane facility; the proposed project would tie-in to this project’s northern end. EA 03-3F380, the Yuba 70 Safety Project, will construct a three-lane facility that will tie-in to the south end of the proposed project.

The proposed project does not conflict with other reasonably foreseeable transportation projects in this segment of SR 70.

1.1.3. Project Description

The proposed project is located within Butte County and Yuba County on State Route 70 (SR 70) 0.3 miles south of Honcut Creek in Yuba County to East Gridley Road/SR 70 intersection (Robinson's Corner) in Butte County. This segment of SR 70 is number 3 of 7 segments in the SR 70 corridor improvement plan to be brought up to current state highway standards and widened to a 5-lane facility.

This segment currently exists mostly as a 2-lane rural highway, without controlled access, bisecting large tracts of agricultural land on either side. The project lies within a 100-year floodplain and has served as a major evacuation route during catastrophic threats of flooding and wildfire.

Twenty-two driveways exist along the highway, which serve residential and agricultural access to properties. Single family residences are located on large (20+ acres) parcels with direct driveway connections to the highway.

The highway presently has shoulder widths of less than 8-feet in some areas with three (3) county road intersections (Lower Honcut Road, Middle Honcut Road and Central House Road) without signalized traffic control. These intersections serve as access points for the rural unincorporated townships of Honcut, Loma Rica, and Palermo. East Gridley Road/SR 70 has signalized traffic control and passing lanes.

Accident and fatality rates within this segment are below the state highway average. However, the total SR 70 corridor accident and fatality rates between Marysville and Oroville are higher than the statewide average.

At the south end of this segment, three box constructed bridges cross Honcut Creek between the existing levee prism (South Honcut Bridge [Br. No 16-0020], Middle Honcut Bridge [Br. No 12-0059] and North Honcut Bridge [12-0060]) built over a flood plain 70 years ago. All of the surrounding land is designated rural agricultural and is commercially farmed for rice and orchard crops.

At Honcut Creek, a new aligned bridge structure is proposed spanning the Honcut Creek levee prism with two 12-foot lanes bounded by 8-foot shoulders on both sides crossing southbound parallel to the existing two-lane structure. This will provide two new dedicated southbound lanes over Honcut Creek and convert the existing Honcut Creek bridges to northbound traffic only.

The highway north of Honcut Bridges will be widened to include 12-foot passing lanes on both sides and a two-way center turn lane/median to Postmile 3.8 (East Gridley Road), bringing the

highway to existing standards with widened shoulders and clear recovery zones. This project is the third segment of the greater SR 70 Safety Corridor Improvement effort in Yuba and Butte County.

1.1.4. Project Scope

The proposed widening includes a newly constructed and aligned two-lane bridge at Honcut Creek, to parallel the existing structure and span the Honcut Creek levee prism, allowing for two-lanes each northbound and southbound. The construction will require approximately one-acre of riparian vegetation removal in the area of Honcut Creek. The project scope will include mitigation/offset for the vegetation removal.

The project further proposes to construct a 14-foot two way left-turn lane north of Honcut Creek with two additional 12-foot passing lanes in both directions and bringing all shoulders to a minimum 8-foot standard width with a 20-foot clear recovery zone constructed on both sides of the highway and reversible lane capability. Caltrans proposes to acquire 28.7 acres of permanent right of way easement fronting the highway. Existing cross culverts will be extended or replaced as needed. The project will also require temporary construction easements and drainage easements. The south portion of the project at Honcut Creek is within a 100-year floodplain, Zone A. Utility relocation and tree removal is anticipated due to road widening.

Due to the increase of highway capacity there is an expected greenhouse gas impact which will be mitigated/offset by Caltrans as part of the project scope.

1.1.5. Alternative Selection and Environmental Determination

The Project Development Team identified Alternative 3A as the *only* build alternative subject to public review. After the public review period, all comments will be considered, and the Department will make the final determination of the project's effect on the environment. Under the California Environmental Quality Act (CEQA), if no unmitigable significant adverse impacts are identified, the Department will prepare a Mitigated Negative Declaration (MND). Final identification of a preferred alternative will occur after the public review and comment period.

Similarly, if the Department, as assigned by the Federal Highway Administration (FHWA), determines the National Environmental Policy Act (NEPA) action does not significantly impact the environment, the Department will issue a Finding of No Significant Impact (FONSI).

1.1.6. Build/No-Build

This project proposes a build/no-build scenario for the following scope of work:

The build alternative proposes to construct a new two-lane bridge over the Honcut Creek complex, parallel to the existing bridges. Two additional lanes plus a continuous two-way turn lane would widen SR 70 from a two-lane highway to five-lane facility for approximately 4.0 miles

north of the existing Honcut bridges to East Gridley Road. The proposed improvements would increase the width of the existing highway overall by 80 feet to provide (4) 12-foot lanes, (2) 8-foot minimum shoulders, (1) continuous 12-foot two way left turn lane (TWLTL), and a 20-foot clear recovery zone on both sides of the highway for errant motorists.

Caltrans proposes a 1365-foot long, eight span pre-stressed girder bridge, to span over the levee prism thereby avoiding fill and embankment construction (as in Alternatives 1 and 2 above) between the levees. This alternative is designed to avoid impacts to wetlands, floodplain, and jurisdictional waters within the levee prism.

A **no-build** alternative would continue current operational conditions within the project limits and would see a degraded level of service over time and result in decreased safety as projected growth and increased volume of traffic is forecasted.

1.1.7. Permits and Approvals Needed

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

Agency	PLAC	Status
United States Fish and Wildlife Service (USFWS)	Section 7 Consultation for Threatened and Endangered Species Review and Comment on 404 Permit	USFWS concurrence/Non-jeopardy Biological Opinion issued on November 18, 2011. USFWS has actively participated in NEPA/404 process. <i>Not Likely to Adversely Affect</i> concurrence letter received on 6/14/2019 from USFW..
United States Army of Engineers	Section 404 Permit for filling or dredging waters of the United States.	Concurrence on the Least Environmentally Damaging Practicable Alternative (LEDPA) as part of NEPA/404 received on August 28, 2011.
California Department of Fish and Wildlife	1602 Agreement for Streambed Alteration Section 2080.1 Agreement for Threatened and Endangered Species	Applications for 1602 permit and Section 2080.1 agreement expected after FED approval. Target Submittal for 1602 Permit is 1/31/2020
California Water Resources Board	Water Discharge Permit	Application for Section 401 permit expected after FED approval. Target Submittal for 1602 Permit is 1/31/2020.
Federal Highway Administration	Air Quality Conformity Determination	Request for determination to be submitted following selection of a preferred alternative /The Federal Highway Administration conformity determination will take 30 days after submission.

2. Chapter 2 – Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures

As part of the scoping and environmental analysis conducted for the project, the following environmental issues were considered to have no adverse impacts. Further discussion regarding these issues will not be included in this document.

- **Land Use** – The project is consistent with local land use plans.
- **Coastal Zone** – The project is not in a coastal zone.
- **Wild and Scenic Rivers** – The project is not in or adjacent to a designated Wild and Scenic River.
- **Parks and Recreational Facilities** – The project is not in or adjacent to any parks or recreational facilities.
- **Geology/Soils/Seismic/Topography** – The project would not result in adverse impacts to the geology, soils, and topography of the project area.
- **Noise** – The Noise Analysis determined there is no potential for adverse impacts to noise.
- **Visual/Aesthetics** – the Visual Study determined there is no potential for adverse impact to the visual/aesthetic environment.

2.1. AGRICULTURAL RESOURCES

2.1.1. Regulatory Setting

Pursuant to the Farmland Protection Policy Act (FPPA) of 1981 [Sections 1539-1549 P.L. 97-98, Dec 22, 1981], the Secretary of Agriculture is directed to establish and carry out a program to "minimize the extent to which Federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses, and to the extent practicable, will be compatible with state, unit of local government, and private programs and policies to protect farmland." [7 USC 4201-4209 & 7 USC 658]. Prime and important farmland includes all land that is defined as prime, unique, or farmlands of statewide or local importance.

The California Environmental Quality Act (CEQA) requires the review of projects that would convert Williamson Act contract land to non-agricultural uses. The main purposes of the Williamson Act are to preserve agricultural land and to encourage open space preservation and

efficient urban growth. The Williamson Act provides incentives to landowners through reduced property taxes to discourage the early conversion of agricultural and open space lands to other uses.

2.1.2. Affected Environment

The United States Department of Agriculture-Natural Resources Conservation Service (USDA-NRCS) was notified of the impacts to farmland conversion created by the proposed project. NRCS concurrence was based on the project study area which consists mainly of large agriculture zoned parcels averaging 183 acres in size. The proposed alignment is on the west side of the highway and will encroach on approximately 28.27 acres of mixed-use farmland, farmland of statewide importance, unique farmland, and grazing land, of which 23.1 is considered prime farmland under the FPPA. The total amount of prime farmland under FPPA protection in the project area is 24,205 acres. Based on the amount of prime farmland being converted by the proposed project representing one-tenth of one percent, a less than significant impact determination has been made between Caltrans and the USDA-NRCS. The following table lists a breakdown of farmland type and amount of project impact.

*Project Breakdown per Acre**

DESCRIPTION	ACRES (.20-mile radius)	PERCENT	Project Impact Acreage Breakdown per Farmland Type *(28.27 acres total)
Grazing Land	228.6	12.3	3.5
Prime Farmland	957.2	51.4	14.8
Farmland of Statewide Importance	321.7	17.3	4.9
Unique Farmland	140.9	7.6	2.1
Other Land	213.17	11.5	3.2

* The total project impact (28.27 acres) was applied to a .20-mile radius of total farmland surrounding the project area using the GIS / California Important Farmland Finder at California Department of Conservation, <https://maps.conservation.ca.gov/DLRP/CIFF/>.

The Williamson Act has been the state's premier agricultural land protection program since its enactment in 1965. Land placed under a Williamson Act contract is restricted to agricultural uses. The Williamson Act is a non-mandated state policy providing for a preferential assessment of agricultural and open space lands that meet local size and use criteria. The study area contains farmland that is designated by the California State Department of Conservation Farmland Mapping and Monitoring Program (FMMP) as prime farmland, grazing

land, farmland of statewide importance, unique farmland, and “other” land (California Department of Conservation 2019).

In 2014, Butte County contained 115,923 acres of prime farmland and 100,257 acres of nonprime farmland under the Williamson/Land Conservation Act (Department of Conservation 2015a). According to maps produced by the Department of Conservation, no farmland under Williamson Act contract are present within the proposed project area (Department of Conservation 2015b).

2.1.3. Environmental Consequences

Under the build alternatives, portions of parcels dedicated to agricultural uses would be acquired and converted to transportation uses. However, the build alternatives would not preclude agricultural uses on remaining agricultural properties (a substantial majority of the land) that would not be acquired. Further, no land under the Williamson Act would be converted from agricultural use. The total acreage of converted farmland represents one-tenth of one percent of all prime farmland conversion.

Impact from converted use is therefore “less than significant.”

2.1.4. Avoidance, Minimization, and Mitigation Measures

No avoidance, minimization, or mitigation measures are required.

2.1.5. References

- NRCS farmland conversion impact rating, form AD-1006, dated July 1, 2019.
- Butte County. 2017. Butte County 2017 Agricultural Crop Report. Available: <https://www.buttecounty.net/Portals/2/CropReports/2017CropReport.pdf>.
- California Department of Conservation. Division of Land Resource Protection: Web Maps <https://maps.conservation.ca.gov/dlrp/#webmaps> Important Farmland GIS map.
- 2015b. Butte County Williamson Act FY 2015/2016 Map. Available: https://www.buttecounty.net/Portals/10/Planning/SFS/CLCA_Map_2015.pdf.

2.2. GROWTH

2.2.1. Regulatory Setting

The Council on Environmental Quality (CEQ) regulations, which established the steps necessary to comply with the National Environmental Policy Act (NEPA) of 1969, require evaluation of the potential environmental effects of all proposed federal activities and programs. This provision includes a requirement to examine indirect consequences, which may occur in areas beyond the immediate influence of a proposed action and at some time in the future. The CEQ regulations

(40 Code of Federal Regulations [CFR] 1508.8) refer to these consequences as indirect impacts. Indirect impacts may include changes in land use, economic vitality, and population density, which are all elements of growth.

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

2.2.2. Affected Environment

According to the November 2014 Butte County Long-Term Regional Growth Forecasts 2014–2040 prepared by the Butte County Association of Governments slight growth is expected to occur in Butte County. A low, medium, and high scenario was developed for each forecast of housing, population, and growth for the document to provide flexibility when utilizing the forecast for long-term planning and to alleviate some inherent uncertainty in long-range projections. Population forecasts for the County for 2014–2040 show a 1.2 percent, 1.4 percent, and 1.6 percent increase in population per year for the low, medium, and high scenarios, respectively. This compound annual growth rate for 2014–2040 will result in the population increasing 36 percent, 44 percent, and 51 percent countywide in the low, medium, and high scenarios, respectively. In addition to the population growth anticipated to occur by 2040, Butte County is expected to experience employment growth. Employment is projected to rise by 39 percent, 46 percent, and 54 percent by 2040 in the low, medium, and high scenarios, respectively (Butte County Association of Governments 2014).

2.2.3. Environmental Consequences

The analysis of growth-related indirect impacts follows the first-cut screening guidelines provided in the California Department of Transportation's Guidelines for Preparers of Growth-Related Indirect Impact Analysis (California Department of Transportation 2006). Based on the first-cut screening analysis below, no additional analysis related to growth is required.

- *How, if at all, does the project potentially change accessibility?*

Although the proposed project would add lanes to allow for passing opportunities, accessibility would not change (Fehr & Peers 2019). There would be no changes to land use, and no new trips would be generated. Local and Regional accessibility would remain consistent with the present highway use. Because SR 70 is an existing roadway in unincorporated Butte and Yuba Counties, the project would not provide additional access to undeveloped areas. Therefore, access to employment, shopping, or other destinations is not expected to change, even with slightly improved travel times.

- *To what extent would change in accessibility affect growth or land use change—its location, rate, type, or amount?*

The project involves shoulder widening, providing a median left-turn lane, passing opportunities and a CRZ along SR 70. The purpose of the project is to improve safety and reduce potential for collisions along this section of SR 70 as well as create a more efficient roadway for goods movement. The proposed project would create additional capacity on SR 70, however widening the highway is not anticipated to provide access to new areas or change accessibility in any way that would exert growth pressure. In addition, because this is a rural area with relatively strict land use controls to prevent the loss of agricultural land, the proposed modifications to SR 70 would not lead to additional planned or unplanned development.

- *To what extent would resources of concern be affected by this growth or land use change?*

Project-related growth is not reasonably foreseeable. The only land use changes would be the incorporation of slivers of ROW for the widening. Project-related growth is not anticipated to occur within the project area where land use is designated as commercial agriculture.

2.3. COMMUNITY IMPACTS

2.3.1. Regulatory Setting

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

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

Caltrans' Relocation Assistance Program (RAP) is based on the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (as amended) and Title 49 Code of Federal Regulations (CFR) Part 24. The purpose of the RAP is to ensure that persons displaced because of a transportation project are treated fairly, consistently, and equitably so that such persons will not suffer disproportionate injuries because of projects designed for the benefit of the public as a whole. Please see Appendix A for a summary of the RAP.

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

No state or federal laws directly concerning utilities or emergency services apply to the proposed project. California Public Utilities Commission General Order 131-D, dated August 11, 1995, directs that major relocations of power lines and substations operating at voltages in excess of 50 kilovolts must be reviewed under CEQA at both the project planning phase and the relocation plan phase, in order to qualify for an exception in compliance with Section IX.B of the General Order. This direction may apply if utility relocations are required for the proposed project.

2.3.2. Affected Environment

The study area is located at the county border within the boundaries of south Butte County and north Yuba County along a 4-mile segment of SR 70 between the City of Marysville and the City of Oroville.

The study area is a sparsely populated rural/commercial agriculture community. Single-family residences are on 20-acre-plus (minimum -due to zoning restrictions) and greater parcels along SR 70. A total of seven (7) single-family residences are widely interspersed on either side of the highway with all but one situated on the east side of the highway.

The largest proximate community, 3.6 miles lies east of the project area. Honcut is a rural unincorporated community in the southernmost area of Butte County and is a Census Designated Place (CDP) with a population of approximately 370 people (2010 Census). There are no services in Honcut and approximately 115 housing units. There is a very small rural K-8 grade school with 3 classrooms. The community has access points north and south of the project alignment and will be minimally impacted by construction and the aligned highway to the west.

Public Services

Fire protection in the project area is provided by the Butte County Fire Department. The station nearest to the study area is the Gridley-Butte Fire Station 76, located at 685 Kentucky St, Gridley.

The Butte County Sheriff's Department, with headquarters at 5 Gillick Way, Oroville, provides police protection in the study area. The California Highway Patrol (CHP) also provides law enforcement services along the SR70 corridor. The nearest office is at 2072 3rd St, Oroville.

The study area is served by Palermo Union Elementary School District. The nearest school to the project limits is Honcut Elementary School (grades K-2nd) located east of the project limits in the community of Honcut.

Utilities and Service Systems

Utilities in the study area include overhead electric lines, underground electric lines, fiber optic cables and storm drain lines.

2.3.3. Environmental Consequences

The proposed project involves widening the existing highway. The project would not change land uses surrounding the highway alignment and would not eliminate access to areas that are currently accessible via SR 70. The proposed project would not permanently remove housing. The project would not contribute to changes in the demographic characteristics of the region and study area and therefore have "less than significant" impact.

The project converts the existing two-lane SR 70 highway to a four-lane expressway with access points remaining intact. The increase in the width of the facility would result in a consistent appearance to the rest of SR 70 within Butte County from the Yuba/Butte County line to the City of Oroville and would not alter the land use of the rural and agricultural area. There would be continued direct access to residential properties and streets from the roadway within the project limits. A "*less than significant impact*" is expected.

No housing would be displaced as a result of project implementation. Consequently, no changes to the local housing market as a result of project implementation are expected.

The proposed roadway widening would require acquisition of narrow strips of right-of-way for the roadway, drainage culverts, and utilities relocation. It is assumed that an additional 10 feet

beyond the right-of-way would be acquired as a temporary easement for construction staging. All acquisitions would be partial (i.e., not the entire parcel) and consist only of the area required to accommodate the widened highway facility. The number of properties requiring acquisition and the magnitude of the acquisition is reflected in Table below. Given the size of the affected properties, those structures that cannot be avoided can be relocated within the same property. The project would not require any new relocation resources, and property owners would be compensated for any loss of property and would be provided relocation assistance in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, and the California Relocation Act.

Assessor Parcel Numbers with Structures Impacted by Permanent Acquisition

Assessor Parcel Numbers (APN) Impacted
Alternative (Build)
APN 024-230-054
APN 024-230-055

Acquisition Area in Acres by Alternative

Acquisition Area in Acres by Alternative			
	Alternative 1	Alternative 2	Alternative 3
Permanent Easement (acres)	62.15	66.78	71.14
Temporary Construction Easement (acres)	11.63	11.90	12.00

Emergency Services

Lane closures would be required during construction along SR 70 but are proposed to take place during non-peak traffic hours. Emergency service vehicles do not primarily access the community of Honcut via Lower Honcut Road. The primary route for emergency services access for Butte County services is via Palermo-Honcut Road.

There are no public parks in the project area. There would be no impact.

There are no other public service facilities in the immediate project vicinity. There would be no impact.

Utilities and Service Systems

Project construction would not produce any amount of wastewater that would exceed treatment requirements of the Central Valley Regional Water Quality Control Board. Project operation would not create new sources of wastewater, and therefore would not cause wastewater to exceed applicable treatment requirements.

Surface water drains off the highway into tapered drains located at the edge of pavement. The project would add additional impervious surface area (how much depends on which alternative is selected), which may increase flows. However, under the build alternative, the project proposes installation of new drainage channels on the west side of SR 70. The project would implement permanent stormwater runoff best management practices (BMPs) to collect and retain or detain the additional flows within the project limits, as required by the Caltrans National Pollution Discharge Elimination System municipal separate storm sewer systems (MS4) permit and a Storm Water Management Plan. For additional detail, see **Section 2. Hydrology and Floodplain.**

Utility relocations would be coordinated with the appropriate service providers. Any required utility coordination and service disruptions would be minimized to the extent feasible and would be communicated with customers in advance of any disruption to allow for alternative service arrangements.

2.3.4. Avoidance and Minimization

No avoidance or minimization measures are required. Final design of the project will make every effort to avoid acquisitions that would potentially displace any structures, or relocate structures within property limits. Ingress and egress access to properties where the new alignment impacts driveways will be improved for clear and safe access to the new roadway. Any required closures would be coordinated with emergency service providers so as not to hinder emergency responses. Implementing a TMP during construction would ensure uninterrupted access to emergency vehicle and school bus routes and minimize traffic delays.

2.4. ENVIRONMENTAL JUSTICE

2.4.1. Regulatory Setting

All projects involving a federal action (funding, permit, or land) must comply with EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, signed by President William J. Clinton on February 11, 1994. This EO directs federal agencies to take the appropriate and necessary steps to identify and address

disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. Low income is defined based on the Department of Health and Human Services poverty guidelines. For 2017, this was \$24,600 for a family of four.

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

2.4.2. Affected Environment

The study area for the purposes of demographic data is composed of Census Tract 33.

No part of Census Tract 33 coincides with any incorporated area. The proportion of the population composed of non-Whites in the study area is approximately 30 percent, similar to that of the County (see Table 2.1.4-1). Although there are no discernible concentrations of minority residents in the study area relative to the County overall based on census tract-level American Community Survey data, there may be such concentrations at smaller units of geography.

Both the study area census tract and Palermo have median household incomes significantly higher than the Census-defined poverty level for a household of four, and slightly lower (Palermo) or higher (Census Tract 33) medians than Butte County. The median, though helpful as an indicator of the general economic health of an area, gives little indication of the distribution of that income, and data from Palermo indicate that the percentage of individuals living below the poverty threshold is higher than for the County at large. Similar to the County, both the census tract and Palermo have more than two in five people residing in renter-occupied housing, which can indicate lower levels of economic security.

Based on census tract-level poverty data, there is evidence that low-income populations reside within the study area.

2.4.3. Environmental Consequences

Economic indicators suggest very small low-income populations may be present within the study area; therefore, environmental justice populations are considered to be present.

Potential effects of a proposed project are typically most likely to be experienced in the area adjacent to and immediately surrounding the location of the project (i.e., for this proposed

project, immediately adjacent to or in proximity to SR 70), mostly during construction as the proposed fbuild facility will no change control or non-control access to arterial roads. As such, residents in the Honcut portion of the study area might experience some changes associated with construction and operation of the proposed expanded highway facility. However, this portion of the study area is already oriented around SR 70, and though construction impacts would be disruptive to adjacent and nearby neighbors, once the project is completed, impacts on the Honcut community would be consistent with and similar to existing conditions along SR 70 but with improved safety and circulation for local and regional motorists. The potential for the proposed project to impact the community would be minimal and short term and “*less than significant*.” During construction, it is possible that there will be intermittent disruptions to the existing highway, but these disruptions would not preclude travel along SR 70 for extended durations. Any required road closures would be communicated in advance through outreach to residents and through the use of portable message signs.

2.4.4. Avoidance and Minimization

No avoidance, minimization, or mitigation measures are required to address impacts on low-income and/or minority populations. During the public circulation of this Draft Initial Study/Environmental Assessment, outreach efforts to reach minority and low-income individuals will be undertaken. Such efforts could include publication of meeting notices in non-English newspapers, direct mailers, and having translators available at public meetings as appropriate.

2.5 TRIBAL - CULTURAL RESOURCES

2.5.1 Regulatory Setting

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

The National Historic Preservation Act (NHPA) of 1966, as amended, sets forth national policy and procedures for historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for listing in the National Register of Historic Places (NRHP). Section 106 of the NHPA requires federal agencies to consider the effects of their undertakings on historic properties and to allow the Advisory Council on Historic Preservation (ACHP) the

opportunity to comment on those undertakings, following regulations issued by the ACHP (36 Code of Federal Regulations [CFR] 800). On January 1, 2014, the First Amended Section 106 Programmatic Agreement (PA) among the Federal Highway Administration (FHWA), the ACHP, the California State Historic Preservation Officer (SHPO), and the Department went into effect for Department projects, both state and local, with FHWA involvement. The PA implements the ACHP's regulations, 36 CFR 800, streamlining the Section 106 process and delegating certain responsibilities to the Department. The FHWA's responsibilities under the PA have been assigned to the Department as part of the Surface Transportation Project Delivery Program (23 United States Code [USC] 327).

The California Environmental Quality Act (CEQA) requires the consideration of cultural resources that are historical resources and tribal cultural resources, as well as "unique" archaeological resources. California Public Resources Code (PRC) Section 5024.1 established the California Register of Historical Resources (CRHR) and outlined the necessary criteria for a cultural resource to be considered eligible for listing in the CRHR and, therefore, a historical resource. Historical resources are defined in PRC Section 5020.1(j). In 2014, Assembly Bill 52 (AB 52) added the term "tribal cultural resources" to CEQA, and AB 52 is commonly referenced instead of CEQA when discussing the process to identify tribal cultural resources (as well as identifying measures to avoid, preserve, or mitigate effects to them). Defined in PRC Section 21074(a), a tribal cultural resource is a CRHR or local register eligible site, feature, place, cultural landscape, or object which has a cultural value to a California Native American tribe. Tribal cultural resources must also meet the definition of a historical resource. Unique archaeological resources are referenced in PRC Section 21083.2. PRC Section 5024 requires state agencies to identify and protect state-owned historical resources that meet the NRHP listing criteria. It further requires the Department to inventory state-owned structures in its rights-of-way.

2.5.2 Affected Environment

The proposed project study included an Archeological Survey Report (ASR), February 28, 2019, which included an archaeological inventory of the project's Area of Potential Effect (APE). The inventory effort consisted of: (1) literature and records research, (2) consultation with the Native American Heritage Commission, as well as with local Indian tribes/individuals; (3) consultation with local historic societies, museums, and interested members of the public; (4) examination of local historic maps and plans; and (5) an intensive pedestrian field survey of the APE conducted by professional archaeologists who meet the Secretary of Interior's qualification

standards. As a result of the cultural resource inventory, nine resources were identified in or within ¼ mile radius of the project area. Of these only two are reported within the project APE and have either been removed or do not exist within the project limits.

A request was sent to the Native American Heritage Commission (NAHC) for a Sacred Lands search and list of tribal contacts November 11, 2018. A letter was received November 19, 2018 from the NAHC stating that the search was negative for sacred lands, however they did provide a list of contacts. Initial consultation letters were mailed on December 5, 2018. Responses were received from Greenville Rancheria, Strawberry Valley Rancheria, and The United Auburn Indian Community of The Auburn Rancheria. Greenville and Strawberry Valley had no immediate concerns and UAIC requested a field visit which was conducted on January 28, 2019. UAIC stated their main concerns were outside the APE, however there was some concerns with possible artifacts within the APE.

2.5.3 Environmental Consequences

The inventory conducted by Caltrans concluded there are no cultural resources present within the project's APE. Therefore, no historic properties will be affected by this undertaking. The impact or potential to affect any known or unknown resources is determined to be "*less than significant*."

2.5.4 Avoidance, Minimization, and/or Mitigation Measures

If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

If human remains are discovered, California Health and Safety Code (H&SC) Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains, and the County Coroner contacted. If the remains are thought by the coroner to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), who, pursuant to PRC Section 5097.98, will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact William Larson, District 03 Cultural Specialist, Environmental Branch william.larson@dot.ca.gov, or (530) 741-4573 so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

2.6. BIOLOGICAL ENVIRONMENT

Natural Communities

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

Habitat areas that have been designated as critical habitat under the Federal Endangered Species Act are discussed below in the Threatened and Endangered Species, *Section 2.6.4.1*. Wetlands and other waters are also discussed below in *Section 2.6.3*.

2.6.1. Regulatory Setting

This section summarizes the federal and state regulations that protect special-status species; waters of the United States (which also are considered waters of the State). This section also discusses pertinent local general plan policies and ordinances related to the protection and preservation of biological resources.

Federal Regulations

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973, and subsequent amendments, provides regulations for the conservation of endangered and threatened species and the ecosystems on which they depend. The U.S. Fish and Wildlife Service (USFWS) (with jurisdiction over plants, wildlife, and resident fish) and the National Marine Fisheries Service (NMFS) (with jurisdiction over anadromous fish and marine fish and mammals) oversee the environmentally sensitive areas (ESAs). Section 7 of the ESA mandates all federal agencies to consult with USFWS and NMFS if they determine that a proposed project may affect a listed species or destroy or adversely modify designated critical habitat. Section 7 requirements do not apply to nonfederal actions. A Clean Water Act (CWA) Section 404 permit from the U.S. Army Corps of Engineers (USACE) would be required for project construction. Consequently, consultation under Section 7 for effects to federally listed species would be required. Under Section 7, the federal lead agency must obtain incidental take authorization or a letter of concurrence stating that the proposed project is not likely to adversely affect federally listed species.

Section 9 of the ESA prohibits the take of any fish or wildlife species listed as endangered, including the destruction of habitat that prevents the species' recovery. Take is defined as any action or attempt to hunt, harm, harass, pursue, shoot, wound, capture, kill, trap, or collect a species. Section 9 prohibitions also apply to threatened species unless a special rule has been defined with regards to take at the time of listing. Under Section 9 of the ESA, the take prohibition applies only to wildlife and fish species. However, Section 9 does prohibit the unlawful removal and possession, or malicious damage or destruction, of any endangered plant from or on federal land. Section 9 prohibits acts to remove, cut, dig up, damage, or destroy an endangered plant species in nonfederal areas in knowing violation of any state law or in the course of criminal trespass. Candidate species and species proposed for or under petition for listing receive no protection under Section 9.

Federally listed species identified as having the potential to occur in the BSA for the proposed project include giant garter snake (*Thamnophis gigas*), steelhead-Central Valley DPS (*Oncorhynchus mykiss*), chinook Salmon-central valley spring-run ESU (*Oncorhynchus tshawytscha*), and Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*).

Executive Order 13112: Prevention and Control of Invasive Species

Executive Order (EO) 13112, signed February 3, 1999, directs all federal agencies to prevent and control the introduction of invasive species in a cost-effective and environmentally sound manner. This EO established the National Invasive Species Council (NISC), which is composed of federal agencies and departments, and a supporting Invasive Species Advisory Committee composed of state, local, and private entities. In 2008, NISC released an updated National Invasive Species Management Plan (National Invasive Species Council 2008) that recommends objectives and measures to implement EO 13112 and to prevent the introduction and spread of invasive species. EO 13112 requires consideration of invasive species in NEPA analyses, including species identification and distribution, potential impacts, and prevention and eradication measures.

Because the proposed project may introduce or spread invasive species into the BSA, federal agencies are required to consider EO 13112 prior to issuing permits. Measures identified in Chapter 4 would avoid or minimize the introduction and spread of invasive species as a result of project activities.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) protects migratory bird species from take. Under the MBTA, take is defined as to (or attempt to) pursue, hunt, shoot, capture, collect, or kill (50 Code of Federal Regulations [CFR] 10.12). The definition differentiates between intentional take (take that is the purpose of the activity conducted) and unintentional take (take that results from, but is not the purpose of, the activity conducted). EO 13186, signed January 10, 2001, directs each federal agency taking actions that would, or likely would, negatively affect migratory bird populations to work with USFWS to develop a Memorandum of Understanding (MOU) to promote the conservation of migratory bird populations. Protocols developed under the MOU must include the following agency responsibilities.

- Avoid and minimize, to the extent practicable, adverse impacts on migratory bird resources when conducting agency actions.
- Restore and enhance habitat of migratory birds, as practicable.
- Prevent or abate the pollution or detrimental alteration of the environment for the benefit of migratory birds, as practicable.

EO 13186 is designed to assist federal agencies in their efforts to comply with the MBTA; the EO does not constitute any legal authorization to take migratory birds. Migratory birds could nest in the BSA. The discussion of nesting migratory birds in Chapter 4 describes potential project impacts on migratory birds and measures to avoid or minimize impacts on those species.

Executive Order 11990: Protection of Wetlands

Executive Order (EO) 11990, signed May 24, 1977, directs all federal agencies to refrain from assisting in or providing financial support to projects that encroach on publicly or privately-owned wetlands. EO 11990 further requires that federal agencies support a policy to minimize the destruction, loss, or degradation of wetlands. A project that encroaches on wetlands may not be undertaken unless the agency has determined that (1) there are no practicable alternatives to such construction, (2) the project includes all practicable measures to minimize harm to wetlands that would be affected by the project, and (3) the impact would be minor.

Because the BSA has a wetland within a potentially jurisdictional waterway, federal agencies are required to consider this EO prior to issuing permits.

State Regulations

California Endangered Species Act

The California Endangered Species Act (CESA) (California Fish and Game Code [CFGF] Section 2050 et seq.) establishes state policy to conserve, protect, restore, and enhance threatened or endangered species and their habitats. CESA mandates that state agencies should not approve projects that jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. For projects that would affect a species on the federal and state lists, compliance with ESA satisfies CESA if the California Department of Fish and Wildlife (CDFW) determines that the federal incidental take authorization is consistent with CESA under CFGF Section 2080.1. For projects that would result in take of a species that is only state-listed, a take permit under Section 2081(b) must be authorized. Chapter 4 describes potential project-related impacts and the avoidance and minimization measures that would be implemented to minimize direct and indirect impacts on these species.

California Environmental Quality Act

The California Environmental Quality Act (CEQA) is the regulatory framework by which California public agencies identify and mitigate significant environmental impacts. A project normally is considered to cause a significant environmental impact on biological resources if it would substantially affect a rare or endangered species or the habitat of that species; substantially interfere with the movement of resident or migratory fish or wildlife; or substantially diminish habitat for fish, wildlife, or plants. The State CEQA Guidelines define rare, threatened, and endangered species as those listed under the ESA and CESA and any other species that meets the criteria of the resource agencies or local agencies (e.g., CDFW-designated species of special concern). The State CEQA Guidelines state that the lead agency preparing an Environmental Impact Report (EIR) must consult with and receive written findings from CDFW concerning project impacts on species listed as endangered or threatened. The impacts of a proposed project on these resources are important in determining whether the project would result in significant environmental impacts under CEQA. An Initial Study would be prepared to comply with the State CEQA Guidelines.

California Native Plant Protection Act

The California Native Plant Protection Act (CNPPA) of 1977 prohibits importation of rare and endangered plants into California, take of rare and endangered plants, and sale of rare and endangered plants, except for a broad range of activities.

Public Resources Code §21083.4

Section 21083.4 of the California Public Resources Code (instituted under Senate Bill 1334), established oak woodland conservation standards for CEQA processes within a county's jurisdiction. These standards apply to any land development project requiring a discretionary entitlement from the County that is subject to review under CEQA and that will have a potentially significant impact on oak woodland. Oak woodland is defined as project site land where a majority of living trees are native oaks and with 10 percent or greater oak canopy cover. Counties are required to consider the significance of the conversion of oak woodlands, including a project's cumulative effect on oak woodlands statewide. The CEQA mitigation standards for project impacts on oak woodlands apply to oaks that have a trunk diameter of 5 inches or more at a height of 4.5 feet above the ground. To mitigate significant impacts to oak woodlands on project site land, a project applicant can implement one of more of four CEQA oak mitigation alternatives.

- Conserve oak woodlands using conservation easements.
- Plant an appropriate number of oak trees, including maintaining plantings for 7 years and replacing dead or diseased trees.
- Contribute funds to the Oak Woodlands Conservation Fund, as established under subdivision (a) of Section 1363 of the Fish and Game Code, for purchasing oak woodlands conservation easements.
- Other mitigation measures developed by the county where the project is located.

Counties are required to implement one or more of these four mitigation alternatives and the planting of oak trees cannot constitute more than 50% of the required mitigation. Oak trees in the study area that are located outside of the existing Caltrans right-of-way could be subject to this code.

Butte Regional Conservation Plan (BRCP)

The BRCP is a program to provide regional conservation strategies for covered special-status species and sensitive natural communities in the lowland and foothill region of Butte County plan

area, which includes the BSA for this project. The BRCP is intended to provide mitigation and a coordinated fee system to streamline the process of obtaining ESA permits. BCAG and Caltrans are included in the list of applicants under the BRCP for Section 10 of FESA and Section 2835 of the California Natural Community Conservation Planning Act permits. The proposed project is included as a covered activity in the BRCP and is located within the Sierra Foothills and Southern Orchards Conservation Acquisition Zones (CAZs) of the plan area.

The public review period for the formal public draft BRCP and Environmental Impact Statement/EIR documents closed on June 8, 2016. Comments received during the public review period will be addressed in the next version of the BRCP. Because the length of time until the BRCP is finalized is not known, BCAG and Caltrans will not request ESA coverage of the proposed project under the BRCP.

Butte County General Plan 2030

Goals and policies in the Butte County General Plan (Conservation and Open Space Element) (Butte County 2012) apply to natural communities in the BSA that would be affected by implementation of the project. These policies include the following mandatory policies, which are required to mitigate environmental impacts under CEQA.

- COS-P7.7. Construction barrier fencing shall be installed around sensitive resources on or adjacent to construction sites. Fencing shall be installed prior to construction activities and maintained throughout the construction period.
- COS-P7.8. Where sensitive on-site biological resources have been identified, construction employees operating equipment or engaged in any development-associated activities involving vegetation removal or ground disturbing activities in sensitive resource areas shall be trained by a qualified biologist and/or botanist who will provide information on the on-site biological resources (sensitive natural communities, special-status plant and wildlife habitats, nests of special-status birds, etc.), avoidance of invasive plant introduction and spread, and the penalties for not complying with biological mitigation requirements and other State and federal regulations.
- COS-P7.9. A biologist shall be retained to conduct construction monitoring in and adjacent to all habitats for protected species when construction is taking place near such habitat areas.
- COS-P8.4. Introduction or spread of invasive plant species during construction of development projects shall be avoided by minimizing surface disturbance; seeding and

mulching disturbed areas with certified weed-free native mixes; and using native, noninvasive species in erosion control plantings.

Butte County Oak Woodlands Management Plan Resolution

Butte County adopted an oak woodlands resolution in 2007 that includes conservation goals and policies for oak woodlands (Butte County 2007). Goals in the plan include educating and encouraging private landowners to learn about and protect their oak woodlands, encouraging restoration of oak woodlands, and encouraging education and research related to oak woodlands. Policies supporting these goals, include encouraging landowners to retain and protect oaks on their property and to consider replacing removed trees with native trees. The plan also addresses the additional information needed for future amendments, including recognizing state agencies, such as Caltrans, that have control over roadside right-of-way easements and could offer potential sites for oak tree planting. In its current form, the plan does not mandate mitigation or replacement for loss of oak woodland.

Yuba-Sutter Natural Communities Conservation Plan/Habitat Conservation Plan

Yuba and Sutter counties, as well as the cities of Yuba City, Live Oak, and Wheatland are in the process of developing the Yuba-Sutter NCCP/HCP for projects located in western Yuba County and Sutter County (Yuba County et al. 2011). Although Caltrans is not requesting authorization through the plan, it is a participant in the planning process. Any improvements to SR 70 in Yuba County would connect with the planned improvements in Butte County, south of the proposed project, and could affect natural communities and covered species included in the NCCP/HCP. Cumulative impact analyses of the southern SR 70 segments, south of the proposed project to the Butte County limits, might include consideration of the Yuba-Sutter NCCP/HCP.

2.6.2. Affected Environment

A Natural Environment Study (NES) was completed in May 2019. The Biological Study Area (BSA) is in both Butte and Yuba County on SR 70 within the project limits.

The BSA consists of an adjacent roadside ditch, mixed vegetation, disturbed shoulder and private property, riparian vegetation, perennial waterway, ephemeral drainage as well as orchards and an isolated rice field. The BSA is within the Sacramento Valley Sub-region of the California Floristic Province.

The topography of the BSA ranges in elevation range from 75 feet to 100 feet above sea level. Land uses in the BSA and the surrounding area are primarily agricultural, with some areas of residential.

The BSA of the bridge work is located within the North Honcut Headwaters- Lower Feather Watershed. The creek is used for agricultural and flood runoff. Approximately 3 miles from the project site, North Honcut Creek joins the Feather River.

North Honcut Creek is a tributary to the Feather River. The Feather River provides potential suitable habitat for Green sturgeon, chinook Salmon and Central Valley steelhead. However, North Honcut Creek flows east to west and the project is located approximately 3.30 miles east from its confluence with the Feather River. Approximately 1.60 miles upstream from the North Honcut Creek, the creek crosses under the Union Pacific Railroad and starts to become diverted for agricultural purposes. At the south end of the BSA, there is North Honcut Creek, South Honcut Creek, and Wilson Creek. North Honcut Creek is a perennial creek with potential fish bearing habitat. South Honcut Creek is an intermittent creek and Wilson Creek is an ephemeral, historical, overflow channel. South Honcut and Wilson Creeks convey water after substantial rains and for short periods of time. None of these channels provide suitable fish passage habitat.

Valley Foothill Riparian is the predominant landscape within the affected environment. Valley oak (*Quercus lobata*) is not dominant but is associated with the dominant species in the BSA. This community is associated with drainage ditches and Honcut Creek as described above along with the agricultural land use that inhibits and limits the vegetative expansion and diversity needed for thriving habitat and community. When vegetation is diverse and well developed, riparian forest provides high-value habitat for wildlife, including several special-status species. Riparian forest habitat provides food, water, and migration and dispersal corridors, as well as escape, nesting, and thermal cover for many wildlife species (Mayer and Laudenslayer 1988:86). Invertebrates, amphibians, and aquatic reptiles live in aquatic and adjacent upland habitats. Raptors, herons, egrets, and other birds' nest in the upper canopy. A variety of songbirds use the shrub canopy, and cavity-nesting birds, such as Nuttall's woodpecker (*Picoides nuttallii*), and oak titmouse (*Baeolophus inornatus*), occupy dying trees and snags (Zeiner et al. 1990a:388, 472). Several mammals including raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), and striped skunk (*Mephitis mephitis*), are common in riparian habitats (Zeiner et al. 1990b:2, 298, 316).

The affected environment is limited by commercial agricultural land use, encroachment of floodplain engineering, irrigation, drainage, and channelized stormwater runoff. Increased capacity and expansion of the state highway and bridge location will further degrade the BSA, its habitat and community.

2.6.3. Environmental Consequences

Construction of the proposed project would result in removal and permanent loss of Valley riparian habitat. For the purposes of this analysis, all tree removal in riparian habitat would be considered a permanent impact because of the time required for habitat regeneration, even if the project construction component requiring the removal is considered a temporary impact. State agencies will require avoidance, minimization, and compensatory mitigation for the loss of Valley riparian habitat. The loss or disturbance of riparian vegetation is considered adverse because this vegetation provides a variety of important ecological functions and values and the impact is determined to be *“less than significant with mitigation.”*

Construction of the proposed project would further result in permanent and temporary impacts on ephemeral drainage habitats. Impacts were considered to be temporary if fill would be removed following completion of construction and temporarily disturbed portions of the ephemeral drainage would be restored. Temporary impacts on ephemeral drainages may include modification of the stream bank or channel, increased turbidity, and runoff of chemical substances. Impacts were considered to be permanent if they would result in the placement of permanent fill in ephemeral drainage habitats associated with widening of SR 70. Indirect impacts on water quality, such as increased turbidity and chemical runoff, may also result from project construction within the downstream portions of drainages and in drainages that are outside the project footprint.

North Honcut Creek is a jurisdictional waterway at the south end of the BSA that flows into the Feather River. A roadside drainage has the potential to be a jurisdictional waterway. This feature conveys roadside runoff and agricultural runoff from surrounding fields and orchards. Cumulative impacts on potential jurisdictional waterways would result from construction of other general development projects in Butte County. Construction of the proposed project would add to the cumulative loss of potential jurisdictional waterways and is therefore determined to be *“less than significant with mitigation.”* However, with implementation of the measures prescribed for minimizing impacts and compensating for remaining impacts, the proposed project’s incremental contribution to cumulative impacts on ephemeral drainages would not be cumulatively considerable.

The total amount of permanent impact of Valley Foothill Riparian and potential jurisdictional roadside drainage is **0.23 acres**.

The total amount of potential permanent impact to Other Waters of the US (OWUS) roadside drainage ditches is **0.22 acres**.

2.6.4. Avoidance, Minimization and Mitigation

Measure 1: Compensate for the Permanent Loss of Valley Riparian Habitat

Caltrans will comply with regulatory requirements for work that will occur within North Honcut Creek, including riparian habitat mitigation. Compensatory mitigation for the loss of 0.23 acres of the Valley riparian will be a combination of both on-site restoration and off-site mitigation. Off-site mitigation will be completed by purchasing CDFW and NMFS approved mitigation credits or by permittee responsible mitigation. *Caltrans will mitigate at a 3:1 ratio compensating for the loss of 0.23 acres of valley riparian and jurisdictional roadside ditch with 0.22 acres totaling 1.35 acres of riparian/OWUS mitigation credits (at a 3:1 ratio) or permittee responsible mitigation.*

Caltrans will prepare a revegetation plan to be included with the 1600 permit application.

Included in this plan will be a species list, number of each species, planting locations, and maintenance requirements. Plantings will consist of either cuttings, taken from local plants,

or plants grown from local material. Planted species for the mitigation plantings will be similar to those removed from the project area and will include native species, such as valley oak (*Quercus lobata*), interior live oak (*Q. wislizenii*), Fremont cottonwood (*Populus fremontii*), arroyo willow (*Salix lasiolepis*), and California grape (*Vitis californicus*).

Compensatory mitigation for permanent direct effects on Valley riparian will be

mitigated by implementation of Measure 1. This compensation rate is subject to change during the permitting process.

Measure 2: Compensate for the Placement of Permanent Fill into Potentially Jurisdictional Waterways

Caltrans will compensate for the permanent fill of .22 acres of Other Waters of the U.S. (OWUS) through the purchase of credits at an USACE approved mitigation bank or INF program.

Mitigation ratios will range from 1:1 to 3:1 (.22 - .66 acres) which will be determined in coordination with USACE. Measure 2 will be implemented to compensate for the loss of potentially jurisdictional waterway or OWUS in the project area and to meet USACE permitting requirements. Impact acreages are pending verification of the delineation by USACE Sacramento District, and compensation is subject to change during the permitting process.

Total potential land mitigation will be between .91- 1.35 acres.

Consideration of Natural Communities with less than significant impact

2.6.5. Wetlands And Other Waters

2.6.5.1. Affected Environment

North Honcut Creek is a jurisdictional waterway at the south end of the BSA that flows into the Feather River. A roadside drainage has the potential to be a jurisdictional waterway. This feature conveys roadside runoff and agricultural runoff from surrounding fields and orchards. The roadside drainage located within the BSA has standing agricultural and roadside water runoff in it for an extended period of time which has created a potential wetland. These wetlands that are characterized by erect, rooted, herbaceous hydrophytes where such vegetation is present for most of the growing season and has the potential to be a jurisdictional waterway. The dominant plant species associated with this roadside drainage is broadleaf cattail (*Typha latifolia*). The drainage terminates 1.91 miles downstream into an ephemeral drainage.

The project would require acquisition of approximately 0.09 acre of rice field. Rice fields are flooded during the summer growing season and many are once again flooded in the fall following harvest. In total, many rice fields can be flooded for up to eight months of the year, during which time, the rice fields become temporary wetlands with enormous significance to wildlife. During the winter months, large flocks of bird's forage in flooded rice fields including Northern Pintail (*Anas acuta*), American Wigeon (*Anas Americana*), and Tundra Swans (*Cygnus columbianus*). Rice fields also provide enough prey to support a diverse raptor population such as Red-shouldered hawk (*Buteo lineatus*), Bald Eagle (*Haliaeetus leucocephalus*), and Northern Harrier (*C. hudsonius*). American Bullfrog (*Lithobates catesbeianus*), giant garter snake (*Thamnophis gigas*), Signal crayfish (*Pacifastacus leniusculus*) are known to inhabit rice fields and adjacent canals.

The ephemeral drainage is located under a mixed canopy cover of Tree of Heaven, Valley oak, and Cottonwood trees. The canopy covers the majority of the drainage, shading it and filling it with leaf litter and debris. The ephemeral drainage is approximately 1 mile long until it drains into North Honcut Creek. The total potential impact of loss of potential jurisdictional waterway is 0.22 acres.

Construction of the proposed project would add to the cumulative loss of potential jurisdictional waterways. However, with implementation of the measures prescribed for minimizing impacts

and compensating for remaining impacts, the proposed project's incremental contribution to cumulative impacts on ephemeral drainages would not be cumulatively considerable.

2.6.5.2. Environmental Consequences

The proposed project construction would result in a discharge of fill material into potential waters of the United States; therefore, an Individual Section 404 CWA permit likely would be required for the proposed project. This loss is considered minimal and “*less than significant*” however requires *mitigation* and is therefore determined to be “*less than significant with mitigation.*”

State agencies will require avoidance, minimization, and compensatory mitigation for the loss of Valley riparian habitat and waters deemed jurisdictional. The loss or disturbance of riparian vegetation and jurisdictional waters are considered adverse because this vegetation provides a variety of important ecological functions and values.

2.6.5.3. Avoidance and Minimization

- A NMFS approved worker awareness training program would be conducted for construction crews before the start of construction activities; this will include an overview of protected species, sensitive resources such as riparian habitat, measures to avoid impacts to species and resources, and conditions of relevant regulatory permits.
- Work would occur only between June 30 and October 31 when listed species are least likely to occur.
- During construction in stream woody material (IWM) would be protected and habitat stabilization would be implemented to protect potential fish passage habitat within the action area. Long-term impacts will be minimized through stabilization of the bank and aquatic habitat with riparian plantings.
- All material stockpiling, vehicle parking, and equipment staging areas for the project would be allowed only in areas cleared by a qualified biologist. Limits for these staging areas will be clearly marked before start of construction and no staging will be allowed outside of these areas.
- Discharge of pollutants into storm drains or watercourses from vehicle and equipment cleaning will be prohibited.
- Maintenance and refueling areas will be located a minimum of 50 feet from the active stream channel in predesignated staging areas.
- Spill containment kits will be maintained onsite at all times during construction operations and staging or fueling of equipment.

- Dust control measures will include use of water trucks/dust palliatives to control dust in excavation and fill areas. Temporary stockpiles will be covered when weather conditions warrant.
- Coir rolls or straw wattles (not containing plastic or synthetic monofilament netting) will be installed along or at the base of slopes during construction to capture sediment.
- Permanent erosion control measures, such as bio filtration strips and swales to receive storm water discharges from the highway or other impervious surfaces will be implemented to the maximum extent practicable.

2.6.6. Plant Species

2.6.6.1. Affected Environment

Based on the CNDDDB search results, the CNPS, and the USFWS, 5 special-status plants were listed for the project region. The BSA however does not have adequate habitat or microhabitat (e.g. serpentine seeps, wetlands, vernal pools, and chaparral) to support these special-status plant species based on field surveys and search results. The BSA has been identified as unsuitable habitat for the special-status plant species within the project region.

2.6.6.2. Environmental Consequences

The proposed project has the potential to create additional areas of disturbance for a temporary period and to introduce and spread invasive plant species to uninfected areas within and adjacent to the study area. This would be of particular concern for natural communities of concern, where nonnative invasive plants could outcompete and replace native vegetation. Implementation of the BMPs and mitigations measures described below would help to prevent the introduction and spread of invasive plants. Table 4-2 list the invasive plants species identified by CDFA and Cal-IPC that are known to occur in the BSA (Natural Resources Conservation Service 2003; California Invasive Plant Council 2006, 2007). The impact is determined to be “*less than significant*” with avoidance and minimization measures.

2.6.6.3. Avoidance, Minimization,

The measures below are would be applied to reduce the potential for the introduction or spread of noxious weeds in the project area:

- All construction equipment will be clean of potential noxious weed sources (mud, vegetation) before entering the project area, to help ensure noxious weeds from outside of the project area are not introduced into the project area;
- Equipment will be considered free of soil, seeds, and other such debris when a visual

inspection does not disclose such material; and

- Only native plant species appropriate for the project area will be used in any erosion control or revegetation seed mix or stock. Certified weed-free straw shall be required where erosion control straw is to be used. In addition, any hydro-seed mulch used for revegetation activities must also be certified weed-free. All seed mix that will be used for revegetation must be pre-approved by a revegetation specialist or botanist familiar with local plant species.
- Non-native plant control will consist of mechanical or spot chemical treatments of the selected most invasive plant species listed by the USDA, CEPPC, and ALIPC that if left untreated, would dominate the onsite mitigation area.

2.6.7. Threatened, Endangered, and Special Status Species

1. Giant Garter Snake (GGS)

The Giant Garter Snake (GGS) is federally, and state listed as threatened since 20 October 1993 {FR 58:54053}. GGS feeds primarily on small fishes, tadpoles, and frogs. Habitat requirements consist of (1) adequate water during the snake's active season (early-spring through mid-fall) to provide food and cover; (2) emergent, herbaceous wetland vegetation, such as cattails and bulrushes for escape cover and foraging habitat during the active season; (3) grassy banks and openings-in waterside vegetation for basking; and (4) higher elevation uplands for cover and refuge from flood waters during the snake's dormant season in the winter. Endemic to wetlands in the Sacramento and San Joaquin valleys, GGS inhabits agricultural wetlands and other waterways such as irrigation and drainage canals, sloughs, ponds, small lakes, low gradient streams, and adjacent uplands in the Central Valley (Dickert 2005). GGS is typically absent from larger rivers because of lack of suitable habitat and emergent vegetative cover, and from wetlands with sand, gravel, or rock substrates. Riparian woodlands typically do not provide suitable habitat because of excessive shade, lack of basking sites, and absence of prey populations. The GGS is an aquatic species that requires both aquatic and upland habitat.

Potential habitat is identified by the presence of suitable aquatic habitat; without suitable aquatic habitat, an area is not suitable for the GGS. Much of the animal's activity takes place in the uplands surrounding the GGS's aquatic habitat. Although the species has been observed to use burrows over 800 ft from its aquatic habitat in the winter, most of the habitat use occurs much closer to the aquatic habitat. Therefore, the USFWS considers appropriate uplands within 200 ft of the GGS's aquatic habitat to be potential GGS upland habitat. GGS inhabits small mammal burrows and other soil crevices above prevailing flood elevations throughout its winter dormancy

period. GGS typically select burrows with sunny exposure along south and west facing slopes. The breeding season extends through March and April, and females give birth to live young from late July through early September. Brood size is variable, ranging from 10 to 46 young, with a mean of 23. Young immediately scatter into dense cover and absorb their yolk sacs, after which they begin feeding on their own. Although growth rates are variable, young typically more than double in size within the first year. Sexual maturity averages three years for males and five years for females (USFWS 2003). Historically, the range of this snake was the San Joaquin Valley from the vicinity of Sacramento to Antioch southward to Buena Vista and the Tulare Lake Basin. The current distribution extends from near Chico, Butte County, to the vicinity of Burrel, Fresno County.

2.6.7.1. Environmental Consequences

The proposed project is not likely to adversely affect federally listed GGS within the action area. Though there are areas where potential habitat may be present, it is the quality of habitat and location of the habitat that justifies the determinations. Any habitat for GGS within the action area is highly manipulated and varies in degrees of quality throughout the year. The cover required for this species is sparse, and inconsistent and intermittent flow regimes make favorable habitat difficult.

The project proposes to construct outside the existing Caltrans right-of-way (ROW) in potential GGS habitat. All temporary and permanent impacts on the vegetation types are considered an impact to GGS habitat. If GGS are present in the action area during construction, take of the species could occur. GGS may occur in the roadside drainage and the rice field along the ROW. There would be permanent effects to the rice field within the action area (i.e., permanent placement of fill and vegetation removal} See the *Valley Riparian, Section 2.6.1.4* of this Document.

Noise, vibrations, artificial light, and other physical disturbances can harass GGS, disrupt or delay normal activities, or cause injury or mortality. For most activities, the effects on GGS would be limited to avoidance behavior in response to movements, noises, and shadows caused by construction personnel and equipment. However, survival may be altered if disturbance causes snakes to leave protective habitat (e.g., causing increased exposure to predators) or is of enough duration and magnitude to affect growth and reproductive success. Most snakes would be expected to move upstream or downstream of the immediate project area in response to disturbance. Displacement could affect survival by increasing the exposure of snakes to predators.

The impact to GGS is determined to be “*less than significant*” with avoidance and minimization measures.

2.6.7.2. Avoidance/Minimization Measures

Measure 1: Caltrans will implement standard best management practices (BMPs), general avoidance and minimization measures, and resource-specific avoidance and minimization measures. The following site restrictions will be implemented to avoid or minimize potential effects to GGS and their habitats:

- Routes and boundaries of roadwork will be clearly marked before initiation of construction or grading.
- Hazardous material, such as fuels, oils, and solvents, will be stored in sealable containers in a designated location that is at least 100 ft from wetlands and aquatic habitats.
- Confined Work Areas. All construction equipment will be restricted to operating within the designated work areas, staging areas, and access routes. The limits of designated work areas and staging areas (i.e. project footprint) will be clearly marked before beginning construction.

Measure 2: Conservation measures to reduce potential impacts to GGS will entail certain avoidance periods as well as other measures, developed in consultation with USFWS, to avoid, minimize, and mitigate potential impacts to this species. Caltrans will implement the following specific avoidance and minimization measures:

- Construction activities will be conducted between May 1 and October 1, which is the active season for GGS to minimize impacts to the species.
- Snake exclusion fencing will be placed around the action area (fenced area) before construction during the active period for GGS (May 1- October 1) and be maintained through the construction period until the project has been completed.
- A Worker Environmental Awareness Training Program for construction personnel will be conducted by a USFWS-approved biologist for all construction workers including contractors, prior to the start of construction activities. This training instructs workers to recognize GGS and their habitats.
- Twenty-four hours prior to construction activities, the project area shall be surveyed for GGS by USFWS-approved biologist. Surveys of the project area should be repeated if a two-week or greater lapse in construction activity occurs. Surveying

methods will be decided closer to time of permitting. Protocol level surveys will be conducted 7 days prior to start of construction. If GGS is encountered during construction, activities will cease until appropriate corrective measures have been completed or it has been determined that the GGS will not be harmed.

- Any sightings and incidental take will be reported to the USFWS immediately by telephone at 916-414-6600 and e-mail or written letter addressed to the Chief, Sacramento Division, within one working day of the incident.
- The canals and the rice fields adjacent to the project area will be flagged and designated as Environmentally Sensitive Area during the construction period.
- The dewatered section of the ESL will remain dry for at least 15 consecutive days prior to commencing construction activities in the GGS aquatic habitat. The habitat will then be surveyed by USFWS- approved biologist before construction activities commence following the 15-day dry period.

2. Swainson's Hawk

Swainson's hawk is a state-listed threatened species. Swainson's hawks forage in grasslands, grazed pastures, alfalfa and other hay crops, and certain grain and row croplands. Vineyards, orchards, rice, and cotton crops are generally unsuitable for foraging because of the density of the vegetation (California Department of Fish and Game 1992:41). The majority of Swainson's hawks' winter in South America, although some winter in the United States. Swainson's hawks arrive in California in early March to establish nesting territories and breed (California Department of Fish and Game 1994). They usually nest in large, mature trees. Most nest sites (87%) in the Central Valley are found in riparian habitats (Estep 1989:35), primarily because trees are more available there. Swainson's hawks also nest in mature roadside trees and in isolated trees in agricultural fields or pastures. The breeding season is from March through August (Estep 1989:12, 35).

Survey Results

Due to the timing of the project documents, focused surveys for Swainson's hawk were not conducted. Four records exist for Swainson's hawk within 5 miles of the BSA (California Department of Fish and Wildlife 2017a). The majority of vegetative cover within the project area is agricultural, consisting mainly of orchard. Orchard is not desirable nesting habitat due to the dense planting and increased equipment activity during the breeding and nesting season. Although there are no CNDDDB occurrences within the BSA (California Department of Fish and

Wildlife 2015a) there is potential for Swainson's hawks to nest in individual trees within in the riparian area of North Honcut Creek.

Construction Activities

Construction activities would occur during the Swainson's hawk nesting season (February 1 through September 30) and could result in the disturbance of Swainson's hawk. If construction activities occur within the riparian area during the nesting season, Caltrans would conduct preconstruction nesting surveys to determine the presence or absence of nesting birds.

BMPs that would be implemented as part of the proposed project that would minimize the potential for direct effects on Swainson's hawk include fencing potentially sensitive areas, minimizing the disturbance of woody vegetation, conducting preconstruction nesting bird surveys, and restoring temporarily disturbed grassland.

2.6.7.3. Environmental Consequences

The proposed project is expected to result in the loss of 24.78 acres of agricultural land. Additionally, 0.23 acres of potential nesting habitat will be permanently impacted by the removal of mature trees within the riparian corridor. Because a net loss of suitable nesting and foraging habitat would result even after mitigation, construction of the proposed project would contribute to the cumulative loss of suitable habitat for Swainson's hawk in the project region. However, with the implementation of project BMPs and measures to avoid and minimize potential impacts on Swainson's hawk and compensation for the permanent loss of suitable nesting and foraging habitat through implementation of Measure 1, the proposed project's effect on Swainson's hawk would not be cumulatively considerable. No indirect impacts are expected. The impact is determined to be "less than significant" with avoidance and minimization measures.

2.6.7.4. Avoidance and Minimization

Measure 3: Conduct Focused Surveys Prior to Construction and Implement Protective Measures during Construction

During the spring before construction begins (i.e., 2021), Caltrans will conduct surveys for nesting birds to provide information in preparation for construction (i.e., locations of nests, responses to disturbances, size of buffer areas anticipated impacts on the project schedule, and determination of need to purchase foraging habitat lands). Surveys will also be conducted in the spring of the construction year to determine if there are active nests when construction activities begin. Because the area surrounding the construction area is largely undeveloped, focused

surveys for migratory birds will be conducted in the project area. The size of the buffer area survey will be based on the type of habitat present and line of sight from the construction area to surrounding suitable nesting habitat. Buffer areas containing unsuitable nesting habitat and/or with an obstructed line of sight to the project area will not be surveyed.

- If an active nest is found, further consultation with CDFW will occur to determine a buffer zone.
- If construction activities are scheduled to occur during the nesting season for these species (February 1 through September 30), a qualified wildlife biologist will be retained to conduct a nesting survey to find the presence or absence of Migratory Birds.
- The surveys should be conducted no more than seven days prior to initiation of construction activities at any time between March 1 and August 15. If no active nests are detected, then no additional mitigation is required.
- If construction activities begin before the nesting season (pre-existing construction), construction can proceed after it is determined that an active migratory bird nest would be subject to abandonment as a result of construction activities. All necessary vegetation removal should be conducted before the breeding season (between February 1 and September 30) so that nesting birds would not be present in the construction area during construction activities. Active sites should be monitored by a wildlife biologist periodically until after the nesting season or after the young have fledged (usually late June to mid-July). If active nests are identified on or immediately adjacent to the Study Area, then all nonessential construction activities (e.g., equipment storage and meeting) should be avoided in the immediate vicinity of the nest, but the remainder of construction activities may proceed.

Measure 4: Conduct Environmental Awareness Training for Construction Employees

Caltrans would retain a qualified biologist to conduct environmental awareness training for construction crews before project implementation. The awareness training would be provided to all construction personnel and will brief them on the need to avoid effects on sensitive biological resources (e.g., native trees, natural communities of special concern, and special-status species habitats in and adjacent to the construction area). The education program will include a brief review of the special-status species with the potential to occur in the BSA (including their life history, habitat requirements, and photographs of the species). The training would identify the portions of the BSA in which the species may occur, as well as their legal status and protection. The program also will cover the restrictions and guidelines that must be followed by all

construction personnel to reduce or avoid effects on these species during project implementation. This will include the steps to be taken if a special-status species is found within the construction area (i.e., notifying the crew foreman, who will call a designated biologist). In addition, construction employees will be educated about the importance of controlling and preventing the spread of invasive plant infestations. An environmental awareness handout that describes and illustrates sensitive resources to be avoided during project construction and identifies all relevant permit conditions will be provided to each crew member. The crew foreman will be responsible for ensuring that crew members adhere to the guidelines and restrictions. Education programs will be conducted for appropriate new personnel as they are brought on the job during the construction period.

3. Osprey

Osprey is a species of special concern. It breeds in Northern California from the Cascade Ranges south of Tahoe, and along the coast south to Marin County. Regular breeding sites include Shasta Lake, Eagle Lake, Lake Almanor, and other inland lakes and reservoirs and northwest river systems (Henny et al. 1978). Osprey is the only hawk on the continent that eats almost exclusively live fish.

Ospreys require nest sites in open surroundings for easy approach, with a wide, sturdy platforms and safety from ground predators (such as raccoons). Nests are built on snags, treetops, or crotches between large branches and trunks; on cliffs or human-built platforms. Clutch size is 1-4 eggs (Cornell 2017). Incubation period is 36-42 days and nestling period is 50-55 days.

The breeding season lasts from February 1 to September 30. Osprey make nests of sticks, sod, grasses, vines, algae, or flotsam and jetsam. Nests are built in in open areas in open surroundings for easy approach. They require treetops, snags or human built platforms.

The extreme use of harsh chemical between the years of 1940s and the 1970s lead to the dramatic decline of Osprey populations. Since 1972, the Osprey population has made a comeback. In 1983, the Osprey was downgraded to threatened from its 1974 listing as endangered and in 1999, it was downgraded again to Species of Special Concern (U.S. Fish and Wildlife Service).

Survey Results

There is an artificial Osprey nesting basin placed on a utility pole within the BSA of the project area. The nesting basin is placed outside of the range of construction activities where it will not

be affected by noise levels from bridge activities. The basin is placed next to SR 70 and orchards where there are high levels of noise disturbance from car traffic and agricultural equipment. Construction equipment would not exceed these noise levels which the Osprey are accustomed to and choose to nest by. The nesting pair returns to this pole annually to nest at this artificial basin. The proposed project would not include relocation of the utility pole and nesting basin.

2.6.7.5. Environmental Consequences

The project would have no direct or indirect impacts on Osprey. The impact is determined to be “less than significant” with avoidance and minimization measures.

2.6.7.6. Avoidance and Minimization

Please see 2.6.7.4 above for the description of nesting avoidance and minimization.

4. Tricolored Blackbird

Tricolored blackbirds are permanent residents of California, but birds make extensive migrations and movements, both in the breeding season and in winter, within their restricted range. Although resident in California, wintering Tricolored Blackbird populations move extensively throughout their range in the nonbreeding season. Major wintering concentrations occur in and around the Sacramento–San Joaquin River Delta and coastal areas, including Monterey and Marin counties, where they are often associated with dairies. Small flocks also may appear at scattered coastal locations from Sonoma County south to San Diego County, and sporadically north to Del Norte County (Beedy and Hamilton 1999, Unit 2004). During winter months, tricolored blackbirds are uncommon in the southern San Joaquin Valley and in the Sacramento Valley north of Sacramento County (Beedy and Hamilton 1999).

The tricolored blackbird forms the largest breeding colonies of any North American land bird (Cook and Toft 2005). As many as 20,000 to 30,000 nests have been recorded in cattail marshes with individual nests (Neff 1937, DeHaven et al. 1975b). Nest heights range from a few centimeters to about 1.5 m above water or ground at colony sites in freshwater marshes (Neff 1937) and up to 3m in the canopies of willows and other riparian trees; rarely, they are built on the ground. The species’ basic requirements for selecting breeding sites are open accessible water; a protected nesting substrate, including either flooded or thorny or spiny vegetation; and a suitable foraging space providing adequate insect prey within a few kilometers of the nesting colony (Beedy and Hamilton 1999).

With the loss of a natural flooding cycle and most native wetland and upland habitats in the Central Valley, tricolored blackbirds now forage primarily in artificial habitats. Ideal foraging conditions for this species are created when shallow flood irrigation, mowing, or grazing keeps the vegetation at an optimal height (<15 cm). Preferred foraging habitats include crops such as rice, alfalfa, irrigated pastures, and ripening or cut grain fields (e.g., oats, wheat, silage), as well as annual grasslands, cattle feedlots, and dairies (Beedy and Hamilton 1999). These blackbirds also forage in remnant native habitats, including wet and dry vernal pools and other seasonal wetlands, riparian scrub habitats, and open marsh borders. Vineyards, orchards, and row crops (tomatoes, sugar beets, corn, peas, beets, onions, etc.) do not provide suitable nesting substrates or foraging habitats for Tricolored Blackbirds.

Survey Results

There are no CNDDDB recorded occurrences of Tricolored Blackbird within 2-miles of the BSA. Marginal nesting and foraging habitat is present within the study area. No tricolored blackbirds were observed during general surveys. Within the roadside drainage, there is an unmaintained patch of cattails. This patch of cattails is not of adequate size to support a nesting colony of Tricolored blackbird. In addition, it is unlikely the tricolored blackbirds would nest adjacent to the highway and are not likely to be in the project area.

2.6.7.7. Environmental Consequences

The widening of SR 70 and the relocation of the roadside drainage would remove 0.02 acres of potential nesting habitat. The impact is determined to be “less than significant” with avoidance and minimization measures.

2.6.7.8. Avoidance and Minimization

Please see Section 2.6.7.4 above for avoidance and minimization measures. With implementation of avoidance and minimization measures as described, impacts on tricolored blackbird will be less than significant. Due to avoidance and minimization measures, no take of tricolored blackbird is anticipated, therefore no compensatory mitigation is proposed at this time. All temporary impacts will be restored with native species.

5. Valley Elderberry Longhorn Beetle

Valley elderberry longhorn beetle (VELB) is federally listed as threatened. The presumed historical range and current range of VELB extend from Tehama County south to Fresno County

through California's Central Valley and associated foothills from about the 3,000-foot contour on the east and the watershed of the Central Valley on the west (79 FR 55881-55884; U.S. Fish and Wildlife Service 1999:1). VELB is dependent on its host plant, elderberry, which is a common component of riparian corridors and adjacent upland areas in the Central Valley (Barr 1991:5).

VELB has four stages of life: egg, larva, pupa, and adult. Females deposit eggs on or adjacent to the host elderberry. Egg production varies; females have been observed to lay between 16 and 180 eggs. Eggs hatch within a few days of being deposited. Larvae emerge and bore into the wood of the host plant, creating a long feeding gallery in the pith of the elderberry stem. The larvae feed on the pith of the plant for 1 to 2 years. When a larva is ready to pupate, it chews an exit hole to the outside of the stem and then plugs it with frass. The larva then retreats into the feeding gallery and constructs a pupal chamber from wood and frass. The larvae metamorphose between December and April; the pupal stage lasts about a month. The adult remains in the chamber for several weeks after metamorphosis and then emerges from the chamber through the exit hole. Adults emerge between mid-March and mid-June, the flowering season of the plant. Adults feed on elderberry leaves and mate within the elderberry canopy (Talley et al. 2006:7-9).

Survey Results

There is one elderberry shrub located within the project limits that could be potential habitat for VELB. The shrub is located adjacent to the northbound lane and is isolated from any other elderberry shrub or riparian habitat. The nearest riparian habitat is approximately 0.11 miles away. There are no CNDDDB occurrences within two miles of the shrub's location. Any effects to VELB as a result of this project are discountable due to the isolated location of the shrub and the distance from the necessary riparian habitat.

2.6.7.9. Environmetnal Consequences

There would be no direct or indirect impacts as a result of the proposed project and therefore have no effect on VELB.

6. Western Pond Turtle

The Western pond turtle is not a State or Federally listed species but is a CDFW Species of Special Concern. The Western pond turtle is a fully aquatic turtle, inhabiting ponds, marshes, rivers, streams and irrigation ditches with aquatic vegetation. The species requires suitable

basking sites such as logs, rocks and exposed banks and associated upland habitat consisting of sandy banks or grassy open fields for reproduction. The species is omnivorous, consuming aquatic wildlife and vegetation for dietary requirements. The Western pond turtle is known to hibernate underwater beneath a muddy bottom in colder climates and reproduce from March to August (Zeiner 1990).

Survey Results

Focused biological surveys were not conducted for Western pond turtle but are presumed present due to the presence of suitable habitat. North Honcut Creek provides suitable habitat requirements to support a population a Western pond turtles. Because turtles are unlikely to use the agricultural and ruderal areas immediately adjacent to the existing highway, these areas were not considered to be suitable upland habitat for Western pond turtle.

2.6.7.10. Environmental Consequences

Construction of the proposed project would result in the permanent and temporary impacts on suitable aquatic (North Honcut Creek) habitat for Western pond turtle. Construction noise and/or activity could disturb turtles or cause them to avoid the area. BMPs that would be implemented as part of the proposed project that would minimize the potential for direct effect on western pond turtle are fencing sensitive resource areas and restoring temporarily disturbed riparian areas. Because turtles are unlikely to use the agricultural and ruderal areas immediately adjacent to the highway, permanent impacts on these areas were not considered permanent loss of upland habitat for Western pond turtle.

The project will result in no permanent loss of foraging and dispersal habitat along the existing North Honcut Creek. The addition of a bridge over North Honcut Creek will cause temporary disturbance in the species habitat. The proposed project will have placement of a temporary gravel pad that will be removed after construction. The project would have no in-water drilling or pile-driving. The impact is determined to be “less than significant” with avoidance and minimization measures.

2.6.7.11. Avoidance and Minimization

To minimize potential impacts to Western pond turtle, the following avoidance and minimization efforts have been incorporated in the project design. Although Western pond turtles have the potential to stray in to the project area, the implementation of Measure 1 & 2 in Section 2.6.7.2,

and Measure 4, Section 2.6.7.4 will avoid and minimize potential project impacts to the Western pond turtle. The project is not likely to adversely affect the Western Pond Turtle.

2.6.8. Special -Status Fish Species

Effects on Shaded Riverine Aquatic (SRA) Habitat

Riparian habitat provides structure (through shaded riverine habitat) and food for fish species. Shade reduces water temperatures, while low overhanging branches can provide sources of food by attracting terrestrial insects. As riparian areas mature, vegetation sloughs off into the rivers, creating structurally complex habitat consisting of large woody debris that furnishes refugia from predators, creates higher water velocities, and provides habitat for aquatic invertebrates. For these reasons, many fish species are attracted to SRA habitat. Removal of riparian vegetation or woody material along the shoreline within the BSA could temporarily result in the loss of some SRA habitat function.

Because SRA habitat is important for fish cover, stream temperature control, protection from avian predation, and production of nutrients and fish food, it is an essential component of critical habitat and essential fish habitat. SRA habitat is abundant along both banks in North Honcut Creek in the BSA, and a section along each bank would be removed to facilitate construction of the new bridge.

A total of 43 feet (ft) along the south bank would be removed and 43 ft along the north bank to facilitate construction of the new bridge. However, construction of the new bridge would result in an increase in channel shading along the entire 43 ft of the creek. Therefore, the permanent change over 43 ft would be more permanent shading from the addition of the new bridge deck.

Effects from Cast in Drilled Holes

The project would involve Cast in Drilled Holes (CIDH) for the proposed bridge alternative. CIDH provide low noise and vibration free installation (Morris-Shea 2015). However, for the proposed project, CIDH would not occur in the water (i.e., the live streambed), but on dry land, approximately 25-35 feet from the active channel. In this case, the land would provide shielding (i.e., attenuation). There are no reference sound levels (peak, root mean square, and sound exposure level [SEL]) for CIDH driven on land or within a certain distance from water (Caltrans 2009, 2012). Dewatering may be required to maintain dry conditions within casings while the CIDH piles are being installed depending on groundwater levels. The casing size for the CIDH piles will range from 5 ft- 6 in to 9 ft depending on the location of the casing. A bucket auger

would be used to drill a hole for casing alongside existing bridge. A rebar cage is then positioned in the drilled hole.

Potential Underwater Noise Levels from Construction

The current interim injury thresholds for fish only address impulsive noise sources. Vibrating, oscillating and drilling operations in water or on land near the edge of water are considered non-impulsive or continuous noise sources. There are no acoustic thresholds for fish that restrict non-impulsive or continuous noise sources. Since this project would not include any construction activity that creates impulsive noise that could reach the level of injury to fish, acoustic impacts to fish are not expected and a detailed assessment of underwater noise levels is not required.

7. Central Valley steelhead

Survey Results

The Feather River is considered to support Central Valley steelhead (CVS) year-round as it meets the habitat requirements. However, its tributary and the action area of the project, North Honcut Creek, does not meet the necessary requirements for spawning habitat. North Honcut Creek is a deep, slow-moving channel with no riffles for spawning habitat. During spawning season, steelhead may use this location as passage to upstream spawning habitat, but there is not suitable spawning habitat within the action area. Optimal temperatures for Steelhead range from 59-64.4 °F (15-18 °C). For an average of 9 months of the year, the water temperatures in North Honcut Creek are outside the optimal range for Steelhead, varying from 65.12°F to 80.6°F. These temperatures become lethal temperatures at 73.4-75.2 °F (23-24 °C) (Moyle 2002). There is no designated Central Valley Steelhead critical habitat within the BSA.

8. Central Valley Spring-Run Chinook Salmon

Survey Results

Due to North Honcut Creek having perennial waters, marginal habitat, and direct connectivity to the Feather River, this location could potentially be used as a migratory fish passage. The action area is a deep, slow moving, turbid pool that does not provide the habitat requirements necessary for spawning. Temperatures in North Honcut Creek are well above optimal spawning temperature throughout the year. It is possible a distressed salmon could attempt to use this channel as a passage, at which point the salmon would encounter lethal oxygen and temperature levels triggering immediate return to the Feather River channel. According to Tracy

McReynolds, Senior Environmental Scientists at the California Department of Fish and Wildlife, there are no concerns for listed salmonids within North Honcut Creek. Honcut quad contains critical habitat for chinook Salmon but there is no designated critical habitat within the BSA.

9. Green Sturgeon

Survey Results

The depth and temperature ranges of Honcut Creek do not support optimal habitat for Green Sturgeon. The likelihood of appearances of Green Sturgeon in Honcut Creek are extremely unlikely.

2.6.8.1. Environmental Consequences

The project will not contribute to a cumulative effect on the local population or jeopardize the continued existence Central Valley Steelhead, spring-run Chinook Salmon and Green Sturgeon

The project is *not likely to adversely affect* special status fish species.

The project is not anticipated to require dewatering activities. This project will have no effect to special fish species critical habitat. The project impacts on special fish species and their habitat include *potential adverse effects related to excessive underwater sound levels, potential discharges of contaminants and loss of shaded riverine aquatic (SRA) cover*. These impacts are discussed below. The impact is determined to be “*less than significant*” with avoidance and minimization measures.

2.6.8.2. Avoidance and Minimization

Caltrans will avoid or minimize impacts on this special-fish species through the implementation of the mitigation measures described below. Any measures included during consultation with NMFS would also contribute to minimize and avoidance of impact.

Measure 1: Compensate for the Permanent Loss of Valley Riparian Habitat - Please see *Section 2.6.1.4* for the description of this measure.

Measure 4: Conduct Environmental Awareness Training for Construction Employees -Please see *Section 2.6.4.4* for the description of this measure.

Measure 7: Avoid and Minimize Removal of SRA Cover:

- Caltrans will require the contractor to implement the following measures to avoid and minimize disturbance and removal of SRA cover:
- The minimum amount of SRA cover will be disturbed or removed, including overhead vegetation and instream cover to support construction activities.
- Instream woody material and large substrate (e.g. boulders) subject to damage or removal will be retained and replaced on site after the project completion.

Measure 8: Predesignated Staging Areas and Best Management Practices (BMP's)

- All material stockpiling, vehicle parking, and equipment staging areas for the project will be permitted only in areas cleared by a qualified biologist. The limits of the designated staging area will be clearly marked before the start of construction. Staging areas will be located within the Caltrans ROW in non-sensitive locations at designated disturbed/developed areas outside construction zones. No staging will be allowed outside the predesignated staging areas.
- In compliance with the requirements of the Central Valley Regional Water Quality Control Board, a storm water pollution prevention plan (SWPPP) and erosion control BMPs will be developed and implemented to minimize any wind- or water-related material discharges. The SWPPP will provide guidance for measures to protect environmentally sensitive areas (ESAs) and to prevent and minimize stormwater and non-stormwater discharges. Protective measures will include the following:
 - Discharge of pollutants into storm drains or watercourses from vehicle and equipment cleaning will be prohibited.
 - Maintenance and refueling areas for equipment will be located a minimum of 50 ft from active stream channels in predesignated staging areas, except at an established commercial gas station or vehicle maintenance facility.
 - Spill containment kits will be maintained onsite at all times during construction operations and/or staging or fueling of equipment.
 - Dust control measures will include the use of water trucks and dust palliatives to control dust in excavation-and-fill areas, and to cover temporary stockpiles when weather conditions warrant such action.
 - Coir rolls or straw wattles that do not contain plastic or synthetic monofilament netting will be installed along or at the base of slopes during construction to capture sediment.

- Permanent erosion control measures, such as biofiltration strips and swales to receive stormwater discharges from the highway or other impervious surfaces, will be implemented to the maximum extent practicable.

2.7. AIR QUALITY

2.7.1. Regulatory Setting

Federal

The Federal Clean Air Act (FCAA), as amended, is the primary federal law that governs air quality while the California Clean Air Act (CCAA) is its companion state law. These laws, and related regulations by the United States Environmental Protection Agency (U.S. EPA) and the California Air Resources Board (ARB), set standards for the concentration of pollutants in the air. At the federal level, these standards are called National Ambient Air Quality Standards (NAAQS). NAAQS and state ambient air quality standards have been established for six transportation-related criteria pollutants that have been linked to potential health concerns: carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), particulate matter (PM)—which is broken down for regulatory purposes into particles of 10 micrometers or smaller (PM₁₀) and particles of 2.5 micrometers and smaller (PM_{2.5})—and sulfur dioxide (SO₂). In addition, national and state standards exist for lead (Pb), and state standards exist for visibility reducing particles, sulfates, hydrogen sulfide (H₂S), and vinyl chloride. The NAAQS and state standards are set at levels that protect public health with a margin of safety and are subject to periodic review and revision. Both state and federal regulatory schemes also cover toxic air contaminants (air toxics); some criteria pollutants are also air toxics or may include certain air toxics in their general definition.

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

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

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

Regional conformity is concerned with how well the regional transportation system supports plans for attaining the NAAQS for carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), particulate matter (PM₁₀ and PM_{2.5}), and in some areas (although not in California), sulfur dioxide (SO₂). California has nonattainment or maintenance areas for all these transportation-related “criteria pollutants” except SO₂, and also has a nonattainment area for lead (Pb); however, lead is not currently required by the FCAA to be covered in transportation conformity analysis. Regional conformity is based on emission analysis of Regional Transportation Plans (RTPs) and Federal Transportation Improvement Programs (FTIPs) that include all transportation projects planned for a region over a period of at least 20 years (for the RTP) and 4 years (for the FTIP). RTP and FTIP conformity uses travel demand and emission models to determine whether the implementation of those projects would conform to emission budgets or other tests at various analysis years showing that requirements of the FCAA and the SIP are met. If the conformity analysis is successful, the Metropolitan Planning Organization (MPO), Federal Highway Administration (FHWA), and Federal Transit Administration (FTA) make the determinations that the RTP and FTIP are in conformity with the SIP for achieving the goals of the FCAA. Otherwise, the projects in the RTP and/or FTIP must be modified until conformity is attained. If the design concept and scope and the “open-to-traffic” schedule of a proposed transportation project are the same as described in the RTP and FTIP, then the proposed project meets regional conformity requirements for purposes of project-level analysis.

Project-level conformity is achieved by demonstrating that the project comes from a conforming RTP and TIP; the project has a design concept and scope¹ that has not changed significantly from those in the RTP and TIP; project analyses have used the latest planning assumptions and EPA-approved emissions models; and in PM areas, the project complies with any control measures in the SIP. Furthermore, additional analyses (known as hot-spot analyses) may be required for projects located in CO and PM nonattainment or maintenance areas to examine localized air quality impacts.

¹ "Design concept" means the type of facility that is proposed, such as a freeway or arterial highway. "Design scope" refers to those aspects of the project that would clearly affect capacity and thus any regional emissions analysis, such as the number of lanes and the length of the project.

State

CEQA applies to most California transportation projects (certain projects are statutorily exempt). California established ambient air quality standards as early as 1969 through the Mulford-Carroll Act. Air pollutants regulated under the 1989 California Clean Air Act (amended in 1992) are like those regulated under the Federal Clean Air Act. In many cases, California standards are more stringent than the NAAQS. The California Clean Air Act requires attainment of California ambient air quality standards (CAAQS). The California Air Resources Board (CARB) regulates mobile emissions sources and oversees the activities of county and regional air quality districts. CARB regulates local air quality indirectly by establishing vehicle emission standards through its planning, coordinating, and research activities. For CEQA analyses, estimation data were compared from the future year Build scenarios to emissions from the Baseline (existing conditions).

2.7.2. Affected Environment

The Oroville Municipal Airport climatological station, maintained by City of Oroville in Butte County, is located near the project site and is representative of meteorological conditions near the project. Figure 3 shows a wind rose illustrating the predominant wind patterns near the project. The climate of the project area is generally Mediterranean in character, with mild winters (from 38 to 56° Fahrenheit in January) and hot, dry summers (from 62 to 95° Fahrenheit in July). Annual average rainfall is approximately 30.66 inches (at Oroville Municipal Airport), mainly falling during the winter months. Butte County, California, covers an area of approximately 1,683 square miles. The lowest and highest elevations in Butte County are -1 meter (-3 feet) and 2,192 meters (7,192 feet)⁶, respectively.

The mountains surrounding the SVAB create a barrier to airflow, which can trap air pollutants under certain meteorological conditions. The highest frequency of air stagnation occurs in the autumn and early winter when large high-pressure cells collect over the Sacramento Valley. The lack of surface wind during these periods and the reduced vertical flow caused by less surface heating reduces the influx of outside air and allows air pollutants to become concentrated in a stable volume of air. The surface concentrations of pollutants are highest when these conditions are combined with temperature inversions that trap pollutants near the ground. The ozone season (May through October) in the Sacramento Valley is characterized by stagnant morning air or light winds with the delta sea breeze arriving in the afternoon out of the southwest. Usually the evening breeze transports the airborne pollutants to the north out of the Sacramento Valley.

During about half of the days from July to September, however, a phenomenon called the “Schultz Eddy” prevents this from occurring. Instead of allowing for the prevailing wind patterns to move north carrying the pollutants out, the Schultz Eddy causes the wind pattern to circle back to the south, preventing pollutants from cycling out of the air basin. This phenomenon has the effect of exacerbating the pollution levels in the area and increases the likelihood of violating federal or state standards. The eddy normally dissipates around noon when the delta sea breeze arrives.

The air monitoring station to the proposed project site is the Chico-East Avenue monitoring station, which is located approximately 30 miles north of the Project location. O₃, PM_{2.5}, and PM₁₀ data were obtained from this station. CO, NO₂, Pb, H₂S, Vinyl Chloride, or Visibility Reducing Particles is not measured at this monitoring station. Data compiled from the California Air Resources Board's iADAM: Air Quality Data Statistics and the Environmental Protection Agency's Monitor Values Report reports the area surrounding the project did not exceed the state Max 1-hr concentration standards for O₃ and the federal Max 24-hr concentration for PM₁₀, in the period 2015–2017. Levels of ozone exceeded the state and federal 8-hour standard concentration for the period of 2016. Levels of PM₁₀ exceeded the state Max 24-hr standard for the period of 2016. Levels of PM_{2.5} exceeded the federal 24-hr standard for the periods between 2015 and 2017. Carbon Monoxide (CO), Nitrogen Dioxide (NO₂), Lead (Pb), Hydrogen Sulfide (H₂S), Vinyl Chloride, or Visibility Reducing Particles are not available as these pollutants are not currently monitored at the Chico-East Avenue monitoring station.

2.7.3. Environmental Consequences

Air Conformity and Attainment Status

STATE AND FEDERAL CRITERIA AIR POLLUTANT STANDARDS, EFFECTS, AND SOURCES							
Pollutant	Averaging Time	State ⁱ Standard	Federal ⁱⁱ Standard	Principal Health and Atmospheric Effects	Typical Sources	State Project Area Attainment Status	Federal Project Area Attainment Status
Ozone (O ₃) ⁱⁱⁱ	1 hour	0.09 ppm ^{iv}	---	High concentrations irritate lungs. Long-term exposure may cause lung tissue damage and cancer. Long-term exposure damages plant materials and reduces crop productivity. Precursor organic compounds include many known toxic air contaminants. Biogenic VOC may also contribute.	Low-altitude ozone is almost entirely formed from reactive organic gases/volatile organic compounds (ROG or VOC) and nitrogen oxides (NOx) in the presence of sunlight and heat. Common precursor emitters include motor vehicles and other internal combustion engines, solvent evaporation, boilers, furnaces, and industrial processes.	Nonattainment	Nonattainment
	8 hours	0.070 ppm	0.070 ppm (4 th highest in 3 years)				
Carbon Monoxide (CO) ^v	1 hour	20 ppm	35 ppm	CO interferes with the transfer of oxygen to the blood and deprives sensitive tissues of oxygen. CO also is a minor precursor for photochemical ozone. Colorless, odorless.	Combustion sources, especially gasoline-powered engines and motor vehicles. CO is the traditional signature pollutant for on-road mobile sources at the local and neighborhood scale.	Attainment	Unclassified/Attainment
	8 hours	9.0 ppm	9 ppm			Attainment	Unclassified/Attainment
	8 hours (Lake Tahoe)	6 ppm	---			Attainment	- Unclassified/Attainment--

Pollutant	Averaging Time	State ^{vi} Standard	Federal ^{vii} Standard	Principal Health and Atmospheric Effects	Typical Sources	State Project Area Attainment Status	Federal Project Area Attainment Status
Respirable Particulate Matter (PM ₁₀) ^{viii}	24 hours	50 µg/m ³ ix	150 µg/m ³ (expected number of days above standard < or equal to 1)	Irritates eyes and respiratory tract. Decreases lung capacity. Associated with increased cancer and mortality. Contributes to haze and reduced visibility. Includes some toxic air contaminants. Many toxic & other aerosol and solid compounds are part of PM ₁₀ .	Dust- and fume-producing industrial and agricultural operations; combustion smoke & vehicle exhaust; atmospheric chemical reactions; construction and other dust-producing activities; unpaved road dust and re-entrained paved road dust; natural sources.	Nonattainment	Unclassified
	Annual	20 µg/m ³	--- viii			Nonattainment	Unclassified---
Fine Particulate Matter (PM _{2.5}) ^x	24 hours	---	35 µg/m ³ viii	Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and produces surface soiling. Most diesel exhaust particulate matter – a toxic air contaminant – is in the PM _{2.5} size range. Many toxic & other aerosol and solid compounds are part of PM _{2.5} .	Combustion including motor vehicles, other mobile sources, and industrial activities; residential and agricultural burning; also formed through atmospheric chemical and photochemical reactions involving other pollutants including NOx, sulfur oxides (SOx), ammonia, and ROG.	Nonattainment	Attainment-Maintenance
	Annual	12 µg/m ³	12.0 µg/m ³			Nonattainment	Attainment-Maintenance

Pollutant	Averaging Time	State ^{xi} Standard	Federal ^{xii} Standard	Principal Health and Atmospheric Effects	Typical Sources	State Project Area Attainment Status	Federal Project Area Attainment Status
Nitrogen Dioxide (NO ₂)	1 hour	0.18 ppm	0.100 ppm ^{xiii}	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown. Contributes to acid rain & nitrate contamination of stormwater. Part of the “NOx” group of ozone precursors.	Motor vehicles and other mobile or portable engines, especially diesel; refineries; industrial operations.	Attainment	Unclassified/Attainment
	Annual	0.030 ppm	0.053 ppm			Attainment	Unclassified/Attainment
Sulfur Dioxide (SO ₂) ^{xiv}	1 hour	0.25 ppm	0.075 ppm (99 th percentile over 3 years)	Irritates respiratory tract; injures lung tissue. Can yellow plant leaves. Destructive to marble, iron, steel. Contributes to acid rain. Limits visibility.	Fuel combustion (especially coal and high-sulfur oil), chemical plants, sulfur recovery plants, metal processing; some natural sources like active volcanoes. Limited contribution possible from heavy-duty diesel vehicles if ultra-low sulfur fuel not used.	Attainment	Unclassified/Attainment
	3 hours	---	0.5 ppm ^{xv}			Attainment---	Unclassified/Attainment
	24 hours	0.04 ppm	0.14 ppm (for certain areas)			Attainment	Unclassified/Attainment
	Annual	---	0.030 ppm (for certain areas)			Attainment---	Unclassified/Attainment
Lead (Pb) ^{xvi}	Monthly	1.5 µg/m ³	---	Disturbs gastrointestinal system. Causes anemia, kidney disease, and neuromuscular and neurological dysfunction. Also a toxic air contaminant and water pollutant.	Lead-based industrial processes like battery production and smelters. Lead paint, leaded gasoline. Aerially deposited lead from older gasoline use may exist in soils along major roads.	Attainment	Unclassified/Attainment---
	Calendar Quarter	---	1.5 µg/m ³ (for certain areas)			Attainment---	Unclassified/Attainment
	Rolling 3-month average	---	0.15 µg/m ³ ^{xvii}			Attainment---	Unclassified/Attainment
Sulfates	24 hours	25 µg/m ³	---	Premature mortality and respiratory effects. Contributes to acid rain. Some toxic air contaminants attach to sulfate aerosol particles.	Industrial processes, refineries and oil fields, mines, natural sources like volcanic areas, salt-covered dry lakes, and large sulfide rock areas.	Attainment	N/A
Hydrogen Sulfide (H ₂ S)	1 hour	0.03 ppm	---	Colorless, flammable, poisonous. Respiratory irritant. Neurological damage and premature death. Headache, nausea. Strong odor.	Industrial processes such as: refineries and oil fields, asphalt plants, livestock operations, sewage treatment plants, and mines. Some natural sources like volcanic areas and hot springs.	Unclassified	N/A

Pollutant	Averaging Time	State ^{xviii} Standard	Federal ^{xix} Standard	Principal Health and Atmospheric Effects	Typical Sources	State Project Area Attainment Status	Federal Project Area Attainment Status
Visibility Reducing Particles (VRP) ^{xx}	8 hours	Visibility of 10 miles or more (Tahoe: 30 miles) at relative humidity less than 70%	---	Reduces visibility. Produces haze. NOTE: not directly related to the Regional Haze program under the Federal Clean Air Act, which is oriented primarily toward visibility issues in National Parks and other "Class I" areas. However, some issues and measurement methods are similar.	See particulate matter above. May be related more to aerosols than to solid particles.	Unclassified	N/A

Regional Conformity

The proposed project is in an area that is nonattainment for national ozone and PM_{2.5} standards. As such, the project is not exempt from regional conformity requirements per 40 CFR 93.127. The proposed project is listed in the SR 70 Passing Lanes (Segment 3) and 2018 financially constrained Regional Transportation Plan (CTIPS ID: 10200000205) which was found to conform by BCAG on 03/21/2018, and FHWA and FTA made a regional conformity determination finding on 09/21/2018. The project is also included in BCAG financially constrained 2018 Regional Transportation Improvement Program, pages 53. The BCAG 2018 Regional Transportation Improvement Program was determined to conform by FHWA and FTA on 11/05/2018. The design concept and scope of the proposed project is consistent with the project description in the 2018 RTP, 2018 FTIP, and the "open to traffic" assumptions of the BCAG'S regional emissions analysis.

Project-Level Conformity

The project is in nonattainment area for PM_{2.5}, thus a project-level hot-spot analysis for PM_{2.5} is required under 40 CFR 93.109 (See Appendix C). The project does not cause or contribute to any new localized CO, PM_{2.5}, and/or PM₁₀ violations, or delay timely attainment of any NAAQS or any required interim emission reductions or other milestones during the timeframe of the transportation plan (or regional emissions analysis).

Interagency Consultation

The proposed project is in an area that is nonattainment for national ozone and PM_{2.5} standards. As such, the project is not exempt from regional conformity requirements per 40 CFR

93.127. The proposed project is listed in the SR 70 Passing Lanes (Segment 3) and 2018 financially constrained Regional Transportation Plan (CTIPS ID: 10200000205) which was found to conform by BCAG on 03/21/2018, and FHWA and FTA made a regional conformity determination finding on 09/21/2018. The project is also included in BCAG financially constrained 2018 Regional Transportation Improvement Program, pages 53. The BCAG 2018 Regional Transportation Improvement Program was determined to conform by FHWA and FTA on 11/05/2018. The design concept and scope of the proposed project is consistent with the project description in the 2018 RTP, 2018 FTIP, and the “open to traffic” assumptions of the BCAG’S regional emissions analysis.

Project-Level (Operational) Air Quality Analysis

Pollutant	Conformity	NEPA	CEQA
Ozone (O ₃)	O ₃ is a regional pollutant with indirect impacts and it is infeasible to model project-level impacts on O ₃ due to its photochemical nature. This report documents that the proposed project is listed in the conforming RTP and STIP as the project is within a nonattainment area. No quantitative study is needed as this is not identified as a regionally significant project.	O ₃ is a regional pollutant with indirect impacts and it is infeasible to model project-level impacts on O ₃ due to its photochemical nature. A precursor emissions burden analysis can be performed using CT-EMFAC (for NO _x and VOC).	O ₃ is a regional pollutant with indirect impacts and it is infeasible to model project-level impacts on O ₃ due to its photochemical nature. A precursor emissions burden analysis can be performed using CT-EMFAC (for NO _x and VOC).
PM ₁₀	The project is within an unclassified area. 2018. No analysis regarding conformity is needed.	A comparative emissions analysis is needed, and the analysis relies on modeling exhaust emissions from CT-EMFAC.	A comparative emissions analysis is needed, and the analysis relies on modeling exhaust emissions from CT-EMFAC.
PM _{2.5}	The project is subject to conformity requirements as it is within a nonattainment area. The U.S. EPA guidance for PM hot-spot analysis and interagency consultation were used to determine whether the project is a POAQC. The project obtained concurrence from EPA and FHWA that the Project is not a POAQC on February 25, 2019. As the project is not a POAQC, no further PM _{2.5} hot-spot analysis is necessary.	A comparative emissions analysis is needed, and the analysis relies on modeling exhaust emissions from CT-EMFAC.	A comparative emissions analysis is needed, and the analysis relies on modeling exhaust emissions from CT-EMFAC.

Pollutant	Conformity	NEPA	CEQA
CO	The project is within an attainment area for CO. No analysis regarding conformity is necessary.	The Caltrans/UC Davis 1997 CO Protocol (http://www.dot.ca.gov/hq/env/air/pages/coprot.htm) is commonly used for CO analyses. If the qualitative screening procedure indicates that a quantitative analysis is required, follow modeling instructions for using CALINE4 with CT-EMFAC emissions factors.	The Caltrans/UC Davis 1997 CO Protocol (http://www.dot.ca.gov/hq/env/air/pages/coprot.htm) is commonly used for CO analyses. If the qualitative screening procedure indicates that a quantitative analysis is required, follow modeling instructions for using CALINE4 with CT-EMFAC emissions factors.
NO ₂	The project is in attainment for NO ₂ . No analysis regarding conformity is necessary.	CT-EMFAC provides NO _x (combination of NO and NO ₂) emissions estimates that can serve as a useful analysis surrogate for NO ₂ emissions analysis.	CT-EMFAC provides NO _x (combination of NO and NO ₂) emissions estimates that can serve as a useful analysis surrogate for NO ₂ emissions analysis.
SO ₂	Not required. All of California is in attainment or unclassified. Include a qualitative statement saying that SO ₂ impacts are <i>de minimis</i> for on- and off-road vehicles (except cargo ships) because gasoline and diesel fuel is low-sulfur by ARB requirement. Cite FHWA conformity guidance that only 4/6 criteria pollutants (not SO ₂) are of concern for transportation sources: http://www.fhwa.dot.gov/environment/air_quality/conformity/guide/guide04.cfm .	SO ₂ is not of concern for transportation sources.	SO ₂ is not of concern for transportation sources.
Lead (Pb)	Not required.	Typically, not an air quality issue. However, ADL (Aerially Deposited Lead) needs to be addressed under Hazardous Waste section.	Typically, not an air quality issue. However, ADL (Aerially Deposited Lead) needs to be addressed under Hazardous Waste section.

Pollutant	Conformity	NEPA	CEQA
GHG	Not required.	Not required.	The proposed project analyzes and documents quantitative GHG emissions associated with the operation of the project, using CT-EMFAC. Additionally, EO B-30-15 requires all projects to calculate construction GHG emissions. CAL-CET2018 is used to quantify the expected construction-related GHG emissions related to the proposed project.
MSATs	Not required.	The project follows FHWA's "Updated Interim Guidance on Mobile Source Air Toxics Analysis in NEPA Documents" (FHWA, 2016). The analysis identifies which of the three MSAT categories the project belongs in based on screening criteria in the guidance. CT-EMFAC is used to provide emission estimates for MSAT pollutants.	CT-EMFAC is used to provide emission estimates for the MSAT pollutants.
Asbestos	Not required.	Not a mobile source issue. Refer to Section 4.2.2	Not a mobile source issue. Refer to Section 4.2.2
Visibility-Reducing Particles	Not required.	Not required.	Typically, not a transportation issue and no analysis are required. Controls under current regulations only apply to stationary sources.
Sulfates	Not required.	Not required.	Sulfate is typically not a mobile source issue.
Hydrogen Sulfide	Not required.	Not required.	H ₂ S is typically not a mobile source issue.
Vinyl Chloride	Not required.	Not required.	Typically, not a transportation issue and no analysis are required.

Construction (Short-term) Impacts

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

During construction, short-term degradation of air quality may occur due to the release of particulate emissions (airborne dust) generated by excavation, grading, hauling, and other construction-related activities. Emissions from construction equipment also are expected and would include carbon monoxide (CO), nitrogen oxides (NO_x), volatile organic compounds (VOCs), directly-emitted particulate matter (PM₁₀ and PM_{2.5}), and toxic air contaminants such as diesel exhaust particulate matter. Ozone is a regional pollutant that is derived from NO_x and VOCs in the presence of sunlight and heat.

Site preparation and roadway construction typically involves clearing, cut-and-fill activities, grading, removing or improving existing roadways, building bridges, and paving roadway surfaces. Construction-related effects on air quality from most highway projects would be greatest during the site preparation phase because most engine emissions are associated with the excavation, handling, and transport of soils to and from the site. These activities could temporarily generate enough PM₁₀, PM_{2.5}, and small amounts of CO, SO₂, NO_x, and VOCs to be of concern. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site could deposit mud on local streets, which could be an added source of airborne dust after it dries. PM₁₀ emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM₁₀ emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

Construction activities for large development projects are estimated by the United States Environmental Protection Agency (U.S. EPA) to add 1.2 tons of fugitive dust per acre of soil disturbed per month of activity. If water or other soil stabilizers are used to control dust, the emissions can be reduced by up to 50 percent. The Department's Standard Specifications (Section 14) on dust minimization require use of water or dust palliative compounds and will reduce potential fugitive dust emissions during construction.

In addition to dust-related PM₁₀ emissions, heavy-duty trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO₂, NO_x, VOCs and some soot particulate (PM₁₀ and PM_{2.5}) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions from traffic would increase slightly while those vehicles are delayed. These emissions would be temporary and limited to the immediate area surrounding the construction site.

SO₂ is generated by oxidation during combustion of organic sulfur compounds contained in diesel fuel. Under California law and ARB regulations, off-road diesel fuel used in California must meet the same sulfur and other standards as on-road diesel fuel (not more than 15 ppm sulfur), so SO₂-related issues due to diesel exhaust will be minimal.

Some phases of construction, particularly asphalt paving, may result in short-term odors in the immediate area of each paving site(s). Such odors would quickly disperse to below detectable levels as distance from the site(s) increases.

The impact is determined to be “less than significant” with avoidance and minimization measures.

2.7.4. Avoidance and Minimization

Most of the construction impacts to air quality are short-term in duration and, therefore, will not result in long-term adverse conditions. Implementation of the following standardized measures, some of which may also be required for other purposes such as storm water pollution control, will reduce any air quality impacts resulting from construction activities:

- The construction contractor must comply with the Department’s Standard Specifications in Section 14.
- Section 14 specifically requires compliance by the contractor with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations and local ordinances.
- Section 14 is directed at controlling dust. If dust palliative materials other than water are to be used, material specifications are described in Section 18.
- Water or dust palliative will be applied to the site and equipment as often as necessary to control fugitive dust emissions. Fugitive emissions generally must meet a “no visible dust” criterion either at the point of emissions or at the right-of-way line, depending on local regulations.

- Soil binder will be spread on any unpaved roads used for construction purposes, and on all project construction parking areas.
- Trucks will be washed as they leave the right-of-way as necessary to control fugitive dust emissions.
- Construction equipment and vehicles will be properly tuned and maintained. All construction equipment will use low sulfur fuel as required by California Code of Regulations Title 17, Section 93114.
- A dust control plan will be developed documenting sprinkling, temporary paving, speed limits, and timely revegetation of disturbed slopes as needed to minimize construction impacts to existing communities.
- Equipment and materials storage sites will be located as far away from residential and park uses as practicable. Construction areas will be kept clean and orderly.
- ESA (Environmentally Sensitive Area)-like areas or their equivalent will be established near sensitive air receptors. Within these areas, construction activities involving the extended idling of diesel equipment or vehicles will be prohibited, to the extent feasible.
- Track-out reduction measures, such as gravel pads at project access points to minimize dust and mud deposits on roads affected by construction traffic, will be used.
- All transported loads of soils and wet materials will be covered before transport, or adequate freeboard (space from the top of the material to the top of the truck) will be provided to minimize emission of dust (particulate matter) during transportation.
- Dust and mud that are deposited on paved, public roads due to construction activity and traffic will be promptly and regularly removed to decrease particulate matter.
- To the extent feasible, construction traffic will be scheduled and routed to reduce congestion and related air quality impacts caused by idling vehicles along local roads during peak travel times.
- Mulch will be installed, or vegetation planted as soon as practical after grading to reduce windblown particulate in the area.

2.8. WATER QUALITY AND STORM WATER RUNOFF

2.8.1. Regulatory Setting

Federal Requirements: Clean Water Act

In 1972, Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to the waters of the United States (U.S.) from any point source² unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. This act and its amendments are known today as the Clean Water Act (CWA). Congress has amended the act several times. In the 1987 amendments, Congress directed dischargers of stormwater from municipal and industrial/construction point sources to comply with the NPDES permit scheme. The following are important CWA sections.

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

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

The USACE issues two types of 404 permits: General and Standard permits. There are two types of General permits: Regional permits and Nationwide permits. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal

² A point source is any discrete conveyance such as a pipe or a constructed ditch.

environmental effect. Nationwide permits are issued to allow a variety of minor project activities with no more than minimal effects.

Ordinarily, projects that do not meet the criteria for a Nationwide Permit may be permitted under one of the USACE's Standard permits. There are two types of Standard permits: Individual permits and Letters of Permission. For Standard permits, the USACE decision to approve is based on compliance with U.S. Environmental Protection Agency's (EPA's) Section 404 (b)(1) Guidelines (EPA Code of Federal Regulations [CFR] 40 Part 230), and whether the permit approval is in the public interest. The Section 404(b)(1) Guidelines (Guidelines) were developed by the EPA in conjunction with the USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that the USACE may not issue a permit if there is a least environmentally damaging practicable alternative (LEDPA) to the proposed discharge that would have lesser effects on waters of the U.S. and not have any other significant adverse environmental consequences. According to the Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures has been followed, in that order. The Guidelines also restrict permitting activities that violate water quality or toxic effluent³ standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause "significant degradation" to waters of the U.S. In addition, every permit from the USACE, even if not subject to the Guidelines, must meet general requirements (see 33 CFR 320.4).

State Requirements: Porter-Cologne Water Quality Control Act

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

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

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

State Water Resources Control Board and Regional Water Quality Control Boards

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

Construction General Permit

Construction General Permit (Order No. 2009-009-DWQ), adopted on September 2, 2009, became effective on July 1, 2010. The permit regulates 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 General Construction Permit. Construction activity that results in soil disturbances of less than 1 acre is subject to this Construction General Permit if there is potential for significant water quality impairment resulting from the activity as determined by the RWQCB. Operators of regulated construction sites are required to develop stormwater pollution prevention plans; to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the Construction General Permit.

The 2009 Construction General Permit separates projects into Risk Levels 1, 2, or 3. Risk levels are determined during the planning and design phases and are based on potential erosion and

transport to receiving waters. Requirements apply according to the Risk Level determined. For example, a Risk Level 3 (highest risk) project would require compulsory stormwater runoff pH and turbidity monitoring, and before- and after-construction aquatic biological assessments during specified seasonal windows. For all projects subject to the permit, applicants are required to develop and implement an effective Storm Water Pollution Prevention Plan (SWPPP). In accordance with Caltrans' Standard Specifications, a Water Pollution Control Plan (WPCP) is necessary for projects with DSA less than 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 U.S. must obtain a 401 Certification, which certifies that the project will be in compliance with state water quality standards. The most common federal permits triggering 401 Certification are CWA Section 404 permits issued by the USACE. The 401 permit certifications are obtained from the appropriate RWQCB, dependent on the project location, and are required before the USACE issues a 404 permit.

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

2.8.2. Affected Environment

This information is based on the 2019 Water Quality Assessment Report for the project.

The segment of SR 70 within the project area The surrounding terrain is generally flat. Drainage from the highway will most likely be conveyed through vegetated shoulder ditches and swales. Combined flow due to the contribution of Caltrans' roadway, neighboring agriculture, and irrigation ditches is typical. The closest receiving water body for this project is Honcut Creek which confluences with the Feather River. Potential Total Maximum Daily Loads (TMDL) waterway impacts (due to a discharge from the project) outside of the Calwater watershed (the project resides in) are not anticipated due to characteristics of the terrain, topography, and relative distances.

The project lies within a “High Risk Receiving Watershed”. High risk receiving watersheds are watersheds that drain to water bodies that are either listed on the CWA 303(d) List for sedimentation/siltation or turbidity; have a USEPA-approved Total Maximum Daily Load Implementation Plan for sediment; or have beneficial uses of COLD (Cold Freshwater Habitat), SPAWN (Spawning, Reproduction, and Development), and MIGR (Migration of Aquatic Organisms). A project that meets at least one of the three criteria has a high receiving water risk.

The discharge of storm water runoff from construction sites has the potential to affect water quality standards, water quality objectives, and beneficial uses. Pollutants and sources typically encountered during construction includes sediment and non-storm water including groundwater, water from cofferdams, dewatering, and water diversions; discharges from vehicle and equipment cleaning agents, fueling, and maintenance; waste materials and materials handling and storage activities. The primary pollutant of concern during construction is sediment and siltation from disturbed construction areas. In terms of mitigation, it is important that appropriate construction site BMPs are deployed, implemented, and maintained during construction activities (by the Contractor) to avoid and reduce potential water quality and environmental impacts.

2.8.3. Environmental Consequences

The new impervious area exceeds 1-acre, therefore *permanent treatment BMP* will be required. This will include “General Purpose BMPs” selected from Matrix-A of Caltrans’ Project Planning Design Guide (PPDG). Discharge of storm water runoff from construction sites has the potential to affect water quality standards, water quality objectives, and beneficial uses. Pollutants and sources typically encountered during construction includes sediment and non-storm water including groundwater, water from cofferdams, dewatering, and water diversions; discharges from vehicle and equipment cleaning agents, fueling, and maintenance; waste materials and materials handling and storage activities. The primary pollutant of concern during construction is sediment and siltation from disturbed construction areas. Construction BMPs will be required due to temporary sediment and erosion runoff control measures required for the project.

The impact is determined to be “less than significant” with avoidance and minimization measures.

2.8.4. Avoidance and Minimization

Caltrans will implement the permanent BMP strategy as outlined in Chapter 5 of the Stormwater Quality Handbook, Project Planning and Design Guide and ensure NPDES Permit compliance

and to further prevent receiving water pollution as a result of construction activities and/or operations related to the project:

- All temporary equipment and material storage areas on State property must be accounted for and included in the total land disturbance estimate, unless a stabilization method has been implemented, reviewed, and approved by NPDES or Storm Water staff.
- The estimated total soil disturbance is greater than 1.0 acre. Therefore, an approved SWPPP (Storm Water Pollution Prevention Plan) will be required, which specifies the level of temporary pollution control measures for the project.
- The project shall adhere to the conditions of the Caltrans Statewide National Pollutant Discharge Elimination System (NPDES) MS4 Permit CAS No. 000003 (Order No. 2012-0011-DWQ and all associated adopted amendments).
- Projects with a land disturbance equal to or exceeding 1 acre must adhere to the compliance requirements of the NPDES Construction General Permit (CGP) CAS No. 000002 (Order No. 2009-0009-DWQ) for General Construction Activities (see special considerations within the SWDR).
- The Contractor prepared SWPPP shall provide and incorporate appropriate and approved temporary construction site BMPs that addresses the effective implementation, placement, handling, storage, use and disposal practices of all BMPs used during construction operations and field activities for the duration of the project.
- Coverage under the State Water Resources Control Board, Water Quality Permit Order No. 2003-0003-DWQ, Low Threat Discharges to Land may be necessary. However, if certain field conditions are met a Waiver by the Regional Board could be utilized. The following is guidance received by the Regional Board and will be used to determine how the discharge of groundwater, resulting from dewatering, may be permitted or regulated for the project:
 - Waiver (No Discharge Monitoring Plan, No Fee are required): No known existing groundwater pollution or pollutant contact (i.e. cement); less than three weeks duration; and less than 10,000 gpd.

- Waiver (Discharge Monitoring Plan, Fee, and Regional Board approval are required): *No known existing groundwater pollution or pollutant contact (i.e. cement); less than three weeks duration; and up to 100,000 gpd (Regional Board will verify enough land is committed and good BMPs are proposed to contain the water).*
- Low Threat Discharge to Land Permit (Discharge Monitoring Plan, Fee, and Regional Board approval are required): *Almost everything else (e.g. groundwater and pollutant contact).*
- Proposed dewatering operations involving discharge to water will require consultation with the Regional Board and could involve special conditions within the 401 Permit. The Regional Board Permit that may be applicable (for this particular scenario) is the Low Threat Discharge to Surface Water Permit (General Order No. R5-2013-0074). Discharges covered by this General Order are either 4 months less in duration or have an average dry weather flow of less than 0.25 million gallons per day.
- Caltrans' Storm Water Management Plan (SWMP), Project Planning and Design Guide (PPDG) Section 4, and Evaluation Documentation Form (EDF) provide detailed guidance in determining if a specific project requires the consideration of permanent Treatment BMPs. This information and related conclusions, specific to and corresponding with the project, can be found in the SWDR.
- The project must follow all applicable guidelines and requirements listed in the 2018 Caltrans Standard Specifications (2018 CSS) Section 13, regarding water pollution control and general specifications for preventing, controlling, and abating pollutant discharges into streams, waterways, and other bodies of water.
 - Effort and focus (by field staff) should be placed on Section 13-4 (Job Site Management), to control potential sources of water pollution before they encounter storm water conveyance systems or receiving waters. This can be accomplished by controlling and managing materials, discarded waste, and non-storm water pollution at the construction site and within the project boundaries.
 - Some operations may require attention to Sections 13-9.02C and 13-9.02D, which relates to and addresses the handling of concrete waste during construction operations.

- Attention should be given to Section 13-4.01C, prior to beginning dewatering operations. And as previously emphasized, the need to dewater should be identified as early as possible, so that excess groundwater accumulation and disposal options can be adequately evaluated and applicable permits and conditions for compliance can be determined.
- Prior to the start of construction, existing drainage facilities should be identified and protected by the application of appropriate Temporary Construction Site BMPs.
- If and where applicable, shoulder backing areas should be stabilized by Temporary Construction Site BMPs, or rolled and compacted in place, by the end of each day and prior to the onset of precipitation.

2.9. HYDROLOGY AND FLOODPLAIN

2.9.1. Regulatory Setting

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

To comply, the following must be analyzed:

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

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

2.9.2. Affected Environment

This Section is based on the *Preliminary Drainage Report and Floodplain Hydraulic Study* which was prepared in November 2019. Honcut Creek is a regulated stream and the flood season is from November 1 to April 15. The project area lies within a 100-year floodplain.

There are 7 existing cross culverts that range between 18" and 24" along with one 8' x 7' Reinforced Concrete Box (RCB) and one double 8' x 8' RCB. There are 10 culverts running parallel to SR 70 that range between 12" to 36".

Segment 1 - of the project starts at YUB PM 25.5 and terminates at YUB PM 25.7. This section of the roadway is located within the jurisdiction of Reclamation District 10 (RD 10). The Honcut Creek levee (YUB PM 25.7) is the northern boundary of RD 10. Within this segment, there is an 8' x 7' Reinforced Concrete Box (RCB) located just south of the Honcut Creek levee used solely for crossing between land owner's parcel adjacent to SR 70. The proposed Honcut Creek bridge begins at YUB PM 25.6. Between YUB PM 25.5 and YUB PM 25.7. Highway profile elevation ranges from 91 feet to 95 feet. This segment of Zone A mapping has longitudinal flow towards the south due to the surroundings and slope of existing landscape.

Segment 2 - of roadway goes from YUB PM 25.7 to BUT PM 0.6. This portion of roadway is identified as a transverse highway encroachment from floodwater flows going through both, the Honcut Creek Bridge (EB PM 0.1) opening, and a double 8' x 8' RCB located at BUT PM 0.6 serving as an equalizing culvert. Roadway profile elevations begins at 95 feet from YUB PM 25.72 and goes to 93 feet at BUT PM 0.6 with a maximum elevation of 97 feet at YUB PM 25.7.

Segment 3 - covers from BUT PM 0.6 to BUT PM 1.3. The elevation of this portion of roadway varies from 91 feet to 92 feet. The current cross culverts under the roadway are a 24" culvert located at BUT PM 0.9 and an 18" culvert located at BUT PM 1.1. This segment of the floodplain was modeled as having transverse flow for FEMA Flood Insurance Rate Mapping. This stretch of the highway does not experience flooding and impacts to the floodplain are less than significant.

Segment 4 - starts at BUT PM 1.3 and goes to the end of the project located at Gridley Road (BUT PM 4.0). This section of roadway ranges in elevation from 94 feet to 106 feet. Under this segment of roadway there are 3 cross culverts which include two 15" x 21" arched culverts. The two 15" x 21" culverts are located just north of Jem Road at BUT PM 1.8 and just north of Middle Honcut Road at BUT PM 2.1. The other culvert is a 24" culvert located just south of Gridley Road. As the roadway travels north, there is a gentle increase in elevation. The entirety of this segment is within FEMA flood zone X mapping.

2.9.3. Environmental Consequences

Impact to the floodplain is perceived “less than significant” due to the proposed improvements not being located in any known floodway or the highway flooding does not occur due to the water surface elevation being significantly lower than the roadway elevation at any given location.

Impact to the floodplain due to roadway improvements is considered “*less than significant*” since any runoff is ultimately conveyed to the Feather River, west of the segment location.

The proposed roadway profile is higher than the existing roadway profile at the beginning of the segment to span the Honcut Creek levee, dropping in elevation to tie back to the existing roadway and will require an encroachment permit.

Based on the findings of this Floodplain Evaluation Study, the proposed project will have a “*less than significant*” impact on the 100-yr floodplain. The project is not expected to increase the water depth within the project limits and poses no additional risk to adjacent properties.

2.9.4. Avoidance and Minimization

Reclamation District 10 (RD 10), Central Valley Flood Protection Board (CVFPB) and United States Army Corps of Engineers (USACE) will be consulted as stakeholders to any changes or impacts to the floodplain or levees. A 408-encroachment permit will be required from CVFPB with concurrence from USACE before construction can begin.

Due to the preliminary stages of the design, additional drainage systems/further investigation of proposed drainage may be required. The following are recommendations for Segments 1 through 4 are as follows:

Segment 1 - The 8' x 7' RCB in can be extended or replaced. This RCB does not hold any hydraulic significance and is used solely by the land owner for access between the split parcel on both sides of SR 70.

Segment 2 - The 8' x 8' RCB can be extended.

Segment 3 - The 24" and 18" cross culverts should each be replaced with 36" culverts along with potentially adding an additional 36" cross culvert, to serve as floodplain equalizing culverts.

Segment 4 - The 2 arched culverts are to be replaced with 24" culverts. The culvert located just south of Gridley Road will remain unchanged.

2.10. TRAFFIC AND TRANSPORTATION

2.10.1. Regulatory Setting

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

In July 1999, the U.S. Department of Transportation (USDOT) issued an Accessibility Policy Statement pledging a fully accessible multimodal transportation system. Accessibility in federally assisted programs is governed by the USDOT regulations (49 CFR Part 27) implementing Section 504 of the Rehabilitation Act (29 United States Code [USC] 794). FWA has enacted regulations for the implementation of the 1990 Americans with Disabilities Act (ADA), including a commitment to build transportation facilities that provide equal access for all persons. These regulations require application of the ADA requirements to federal-aid projects, including Transportation Enhancement Activities.

2.10.2. Affected Environment

A Traffic Operations Report was completed by Fehr and Peers in February 2019. The project/study area focuses on SR 70 from the Butte/Yuba County line to East Gridley Road/Stimpson Road. SR 70 is a north-south two-lane conventional highway that serves as a transportation corridor for the eastern Sacramento Valley.

This segment of highway has a higher than average occurrence of vehicle fatalities. The total collision rate is less than the statewide average for similar facilities, and the actual collision rate is about 65 percent of the corresponding statewide average. However, the study area has a higher than average rate of fatality collisions – about twice the statewide average for similar facilities. All 3 of the fatalities occurred within the two-lane portion of the highway south of Stimpson Lane.

The average daily traffic count through the project area is approximately 14,600 vehicles per day with average peak hour count of approximately 1,000 vehicles per hour through the project area. Daily truck volume on SR 70 are estimated at about 960 trucks per day at the Butte/Yuba County Line making up roughly 6.5% of the total vehicle volume.

Key roadways and intersections in the study area are:

- SR 70/East Gridley Road/Stimpson Road
- SR 70/Lower Honcut Road

Existing Intersection and Traffic Conditions

To measure the operational status of the local roadway network, transportation engineers and planners use a grading system called level of service (LOS). Level of service is a description of the quality of operation of a roadway segment or intersection, ranging from LOS A (for free-flowing traffic with little to no delay) to LOS F (where traffic in excess of capacity introduces significant delays). Level of service policies vary within the study area. Caltrans has established route concept LOS thresholds of LOS **E** for SR 70 from the Butte/Yuba County line to 0.6 miles south of SR 162.

Under existing conditions, SR 70 within the project area operates with LOS **B and C** conditions. The segment between East Gridley Road and Lower Honcut Road, operates at LOS **B** conditions due to the passing lane between East Gridley Road and Central House Road.

The study intersections operate similarly during both peak hours with the signalized intersection at East Gridley Road operating at LOS **B** conditions, and the side street stop-controlled intersection at Lower Honcut Road operating at LOS **C** conditions.

Opening Year (2023)

Compared to existing conditions, operations under the opening year (2023) would worsen under the no build alternative due to increasing traffic volumes. However, operations would be LOS **D** or better for all study segments. The build alternative would widen to provide a multilane highway for SR 70. The capacity provided by the four-lane cross-section would provide LOS **A** conditions.

Since all highway segments would operate with LOS **D or better** under opening year (2023) conditions for both alternatives, no segments would have deficient operations, and no alternatives would have project impacts.

Horizon Year (2043)

Operations under the horizon year (2043) would worsen under the *no build* alternative due to increasing traffic volumes. Compared to existing conditions, the AM peak hour conditions would have one segment worsening from LOS **C to D** in the northbound direction. The PM peak hour would have three of four segments worsening from LOS **D to E**. Travel time would increase in both directions by about 15 seconds during the AM peak hour and by 20 to 25 seconds during the PM peak hour.

Like opening year conditions, the horizon year forecast (2043) when widened to four lanes would have LOS **A** conditions. With the additional lane provided, travel times would be reduced by up to 1.2

minutes compared to the *no build* alternative. This takes into account a 41% increase in vehicle miles traveled (VMT).

Transit Service and Bicycle/Pedestrian Facilities

While bicycle and pedestrian traffic is not strictly prohibited on SR 70 through the project area, there are no designated facilities for bicycle or pedestrian use, and ped-cyclists must navigate along the shoulder of the highway in the clear recovery zone if they are to utilize the highway.

Given the rural location of the project, the large distances between destination points, and the lack of formal facilities such as sidewalks and designated bicycle lanes, bicycle and pedestrian travel is not a common mode of transportation in the study area, nor is there a known connecting bicycle route from Marysville to Oroville.

Under the build alternative it is feasible to facilitate a class III bicycle route under the existing proposed shoulder widths as a measure to reduce GHG tailpipe emissions, improve multi model access and opportunity, and facilitate connectivity for cyclists.

Transit Services

There are no current transit services operated within the project area or along the SR 70 Corridor.

In 2014 BCAG completed the *Butte County Inter-City Commuter Bus Feasibility Study* examining the feasibility of providing daily commuter passenger bus service between Chico and Downtown Sacramento, a commute distance of approximately 100 miles per direction.

Based on the study, it was identified that approximately 3,086 residents in Butte County commute daily to jobs in Sacramento County, with 1,570 working within the City of Sacramento, and 689 working within in the Downtown area of the City.

Because of the number of daily commuters and estimated farebox recovery, BCAG concluded daily commuter bus service was feasible with a three-year pilot program being implemented as a first phase. BCAG has proposed a commuter bus line between Oroville and Marysville as well, however no bus service or ridership program has been achieved.

2.10.3. Environmental Consequences

Induced Travel

The proposed project would provide four travel lanes and is expected to have higher traffic volumes under horizon year (2043) conditions compared to the *no build* alternative that

maintains two travel lanes. The phenomenon where additional capacity leads to additional travel demand is called induced travel. The idea is that lower travel cost generates an increase in travel demand due to the following causes.

Short-term responses

- New vehicle trips that would otherwise would not be made
- Longer vehicle trips to more distant destinations
- Shifts from other modes to driving
- Shifts from one driving route to another

Longer-term responses

- Changes in land use development patterns (these are often more dispersed, low density patterns that are auto-dependent)
- Changes in overall growth

In addition to route diversion, new demand may be created through changes in trip destinations, changes in travel mode, and changes in the time of day. Travel demand models can capture some, but not all, of these changes. Travel demand models do not capture changes in land use development due to the reduced travel time.

See Chapter 2, Section 2.11 for more analysis of forecasted vehicle mile traveled (VMT) and associated impacts.

The impact is determined to be “less than significant” with avoidance and minimization measures.

Temporary Construction Impacts

During construction, accessibility for vehicles may be affected. Travel lane and sidewalk closures may occur during various phases of construction, resulting in detours and temporary traffic delays associated with the construction period. Local streets and State Route 70 would be temporarily affected during construction to allow contractor access and construction tasks. The proposed project will result in improved LOS throughout the project/study area under the build alternative and would provide increased safety measures for motorists. Measure during construction will be implemented in A “*less than significant impact*” is expected.

There are no designated transit facilities. There are no multi modal facilities due to the rural nature of the surrounding landscape, lack of population density, and designated land use as

commercial agricultural. Widening the existing facility to 5 lanes may accommodate a class III bicycle *route* for connectivity as more users may choose to ride in the future.

With implementation of traffic control plan measures to ensure access during construction, this impact would be minimized. It is Due to the lack of ped and bicycle users and the non-existent facilities, it is concluded that the project will have “*less than significant impact*” on bicycle and pedestrian use.

The impact is determined to be “less than significant” with avoidance and minimization measures.

2.10.4. Avoidance and Minimization

Traffic Control Plan During Construction

Caltrans, in cooperation with the Butte County Association of Governments, will prepare and implement a traffic control plan as part of the overall construction management plan. Contractor compliance with the traffic control plan will be required as part of the construction contracts and will be used throughout the course of project construction. The traffic control plan will include, but will not be limited to, the following elements:

- Advance notice will be provided to transit operators, emergency service providers, businesses, and residences of construction work, any anticipated delays, and temporary road closures.
- When traffic control measures occur, advance notice will be provided to local fire and police departments to ensure that alternate evacuation and emergency routes are designed to maintain response times.
- Vehicular access to driveways and private roads will be maintained to the extent possible and compensation will be afforded by Caltrans and BCAG for loss of access.
- Existing non-motorized access or detours and warning signs will be maintained at all times.
- Parked construction-related vehicles will not disrupt automobile, bicycle, or pedestrian traffic.
- Traffic controls will be used in the construction area if the normal traffic flow is affected by construction activities. Such controls may include flag persons wearing safety gear consistent with current codes of safe practices using a “Stop/Slow” paddle to control oncoming traffic.
- Traffic controls will be used at haul route crossings. Controls may include flag persons wearing safety gear consistent with current codes of safe practices using a “Stop/Slow” paddle to control oncoming traffic.

- Signs giving advance notice of upcoming construction activities will be posted at least 1 week in advance to that motorists, if they choose, can avoid traveling through the project area during these times.
- Construction warning signs will be posted in accordance with local standards or those set forth in the Manual on Uniform Traffic Control in advance of the construction area and at any intersection that provides access to the construction area.
- Written notification will be provided to contractors regarding appropriate routes to and from the construction site, plus the weight and speed limits on local roads used to access the construction site.

Provide Pedestrian and Bicycle Access during Construction

There are no pedestrian or bicycle facilities in the project area. Although it is unlikely there will be any pedestrian or bicycle traffic during construction, it is not prohibited and therefore will have accommodated detour routes established during construction.

2.11. GREENHOUSE GAS (GHG)

Climate Change

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

While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change (IPCC) by the United Nations and World Meteorological Organization in 1988 led to increased efforts devoted to GHG emissions reduction and climate change research and policy. These efforts are primarily concerned with the emissions of GHGs generated by human activity, including carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF₆), and various hydrofluorocarbons (HFCs). CO₂ is the most abundant GHG; while it is a naturally occurring component of Earth's atmosphere, fossil-fuel combustion is the main source of additional, human-generated CO₂.

Two terms are typically used when discussing how we address the impacts of climate change: "greenhouse gas mitigation" and "adaptation." Greenhouse gas mitigation covers the activities and policies aimed at reducing GHG emissions to limit or "mitigate" the impacts of climate

change. Adaptation, on the other hand, is concerned with planning for and responding to impacts resulting from climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels). This analysis will include a discussion of both.

2.11.1. Regulatory Setting

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

Federal

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

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

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

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

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

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

State

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

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

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

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

framework to promote the low-carbon fuel adoption necessary to achieve the Governor's 2030 and 2050 GHG reduction goals.

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

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

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

EO B-30-15 (April 2015) establishes an interim statewide GHG emission reduction target of 40 percent below 1990 levels by 2030 to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050. It further orders all state agencies with jurisdiction over sources of GHG emissions to implement measures, pursuant to statutory authority, to achieve reductions of GHG emissions to meet the 2030 and 2050 GHG emissions reductions targets. It also directs CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent (MMTCO₂e). Finally, it requires the Natural Resources Agency to update the state's climate adaptation strategy, Safeguarding California, every 3 years, and to ensure that its provisions are fully implemented.

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

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

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

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

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

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

2.11.2. Affected Environment

The proposed project is a four-mile segment of SR-70 in a rural, commercial agricultural and prime farmland area. This segment is part of a transportation corridor between Oroville and Marysville and a throughput for both passenger and commercial vehicles. The nearest alternate route is SR-99, four miles west of the East Gridley Road and SR-70 intersection. Traffic counts in the project area are high quantity, low density at a Level of Service (LOS) of B or higher. Traffic moves at an average of 65 mph.

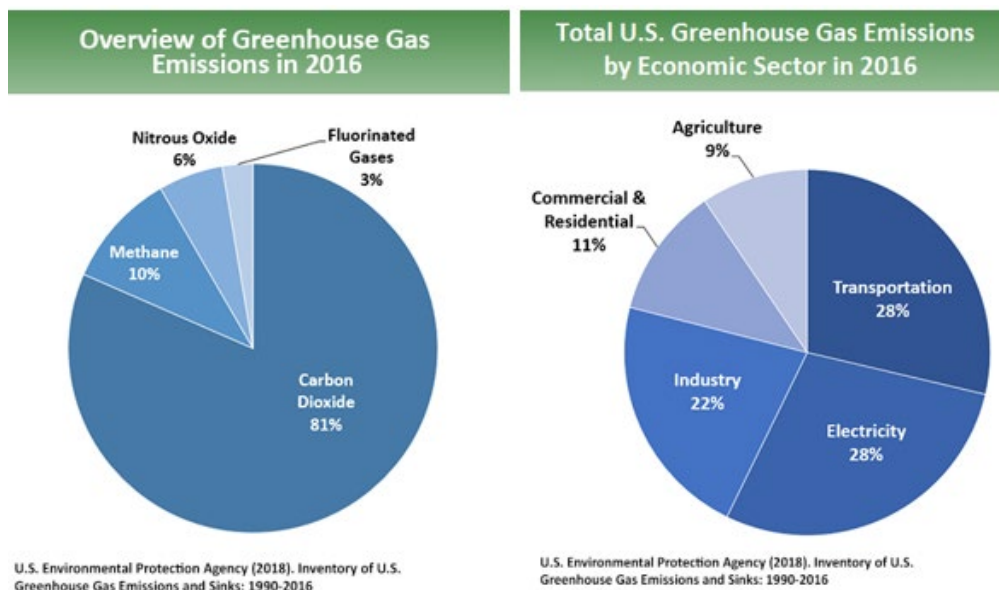
The Butte County Association of Governments (BCAG) is the Regional Transportation Agency which guides transportation development in this segment. The Butte County General Plan Circulation, Safety, and Traffic elements address GHGs in the project area. The Butte County General Plan is scheduled to be updated in 2020 along with the BCAG RTP-SCS EIR in that GHG impacts.

A GHG emissions inventory estimates the amount of GHGs discharged into the atmosphere by specific sources over a period, such as a calendar year. Tracking annual GHG emissions allows countries, states, and smaller jurisdictions to understand how emissions are changing and what actions may be needed to attain emission reduction

goals. U.S. EPA is responsible for documenting GHG emissions nationwide, and the CARB does so for the state, as required by H&SC Section 39607.4.

National GHG Inventory

The U.S. EPA prepares a national GHG inventory every year and submits it to the United Nations in accordance with the Framework Convention on Climate Change. The inventory provides a comprehensive accounting of all human-produced sources of GHGs in the United States, reporting emissions of CO₂, CH₄, N₂O, HFCs, perfluorocarbons, SF₆, and nitrogen trifluoride. It also accounts for emissions of CO₂ that are removed from the atmosphere by “sinks” such as forests, vegetation, and soils that uptake and store CO₂ (carbon sequestration). The 1990–2016 inventory found that of 6,511 MMTCO₂e GHG emissions in 2016, 81% consist of CO₂, 10% are CH₄, and 6% are N₂O; the balance consists of fluorinated gases (EPA 2018a). In 2016, GHG emissions from the transportation sector accounted for nearly 28.5% of U.S. GHG emissions.



U.S. 2016 Greenhouse Gas Emissions

State GHG Inventory

ARB collects GHG emissions data for transportation, electricity, commercial/residential, industrial, agricultural, and waste management sectors each year. It then summarizes and highlights major annual changes and trends to demonstrate the state’s progress in meeting its GHG reduction goals. The 2019 edition of the GHG emissions inventory found total California emissions of 424.1 MMTCO₂e for 2017, with the transportation sector responsible for 41% of

total GHGs. It also found that overall statewide GHG emissions declined from 2000 to 2017 despite growth in population and state economic output (ARB 2019a).

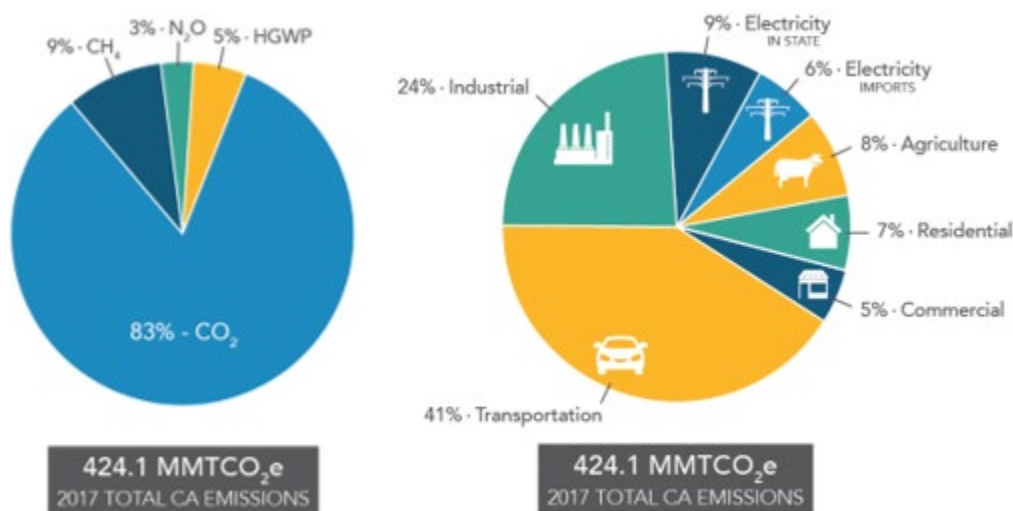
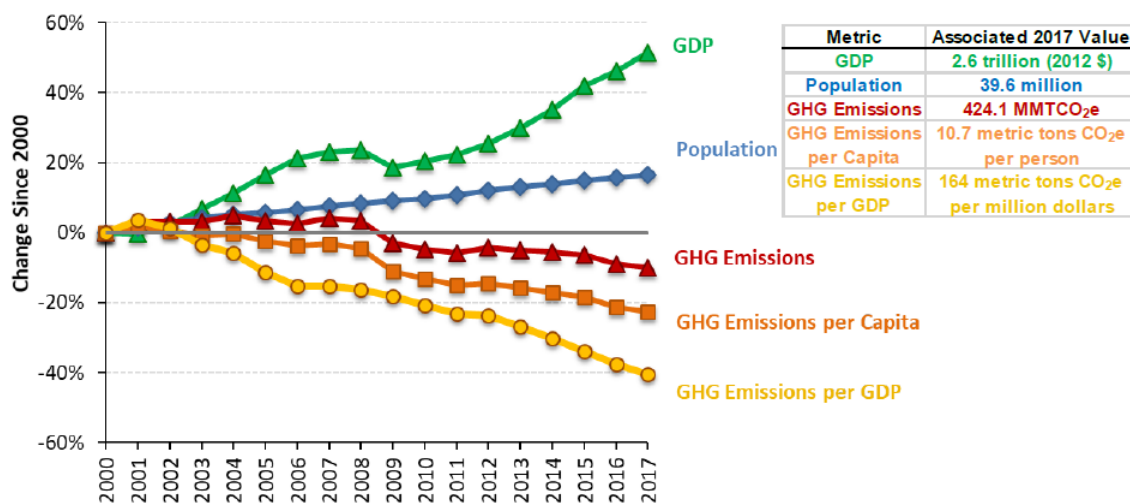


FIGURE ##. California 2017 Greenhouse Gas Emissions



Change in California GDP, Population, and GHG Emissions since 2000

AB 32 required ARB to develop a Scoping Plan that describes the approach California will take to achieve the goal of reducing GHG emissions to 1990 levels by 2020, and to update it every 5 years. ARB adopted the first scoping plan in 2008. The second updated plan, California's 2017 Climate Change Scoping Plan, adopted on December 14, 2017, reflects the 2030 target established in EO B-30-15 and SB 32. The AB 32 Scoping Plan and the subsequent updates contain the main strategies California will use to reduce GHG emissions.

Regional Plans

CARB sets regional targets for California's 18 MPOs to use in their RTP/SCSs to plan future projects that will cumulatively achieve GHG reduction goals. Targets are set at a percent reduction of passenger vehicle GHG emissions per person from 2005 levels. The proposed project is included in the 2016 RTP/SCS for BCAG under Appendix B. The regional reduction target for BCAG is -6% for 2020, and -7% percent for 2035 (ARB 2019c)

(<https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets>).

Regional and Local Greenhouse Gas Reduction Plans

Title	GHG Reduction Policies or Strategies
Butte County Association of Governments (BCAG) <i>2012 Metropolitan Transportation Plan/Sustainable Communities Strategy (adopted December 2012)</i> and <i>2016 Regional Transportation Plans</i> (adopted December 2016)	<ul style="list-style-type: none">• Greater coordination of regional and local bicycle facilities• Expand the public transit network• Link transit services to bike and ped facilities• Increase number of Park and Ride facilities• Streets should be designed to support use by multiple modes
Butte County Climate Action Plan (adopted December 2012)	<ul style="list-style-type: none">• Expand the use of alternative and clean-fuel vehicles.• Reduce emissions from employee commutes by encouraging alternative travel options and supporting the use of clean, alternative fuels.

Project Analysis

GHG emissions from transportation projects can be divided into those produced during operation of the SHS and those produced during construction. The primary GHGs produced by the transportation sector are CO₂, CH₄, N₂O, and HFCs. CO₂ emissions are a product of the combustion of petroleum-based products, like gasoline, in internal combustion engines. Relatively small amounts of CH₄ and N₂O are emitted during fuel combustion. In addition, a small amount of HFC emissions are included in the transportation sector.

The CEQA Guidelines generally address greenhouse gas emissions as a cumulative impact due to the global nature of climate change (Pub. Resources Code, § 21083(b)(2)). As the California Supreme Court explained, "because of the global scale of climate change, any one project's contribution is unlikely to be significant by itself." (Cleveland National Forest Foundation v. San Diego Assn. of Governments (2017) 3 Cal.5th 497, 512.) In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively considerable" (CEQA Guidelines Sections 15064(h)(1) and 15130)).

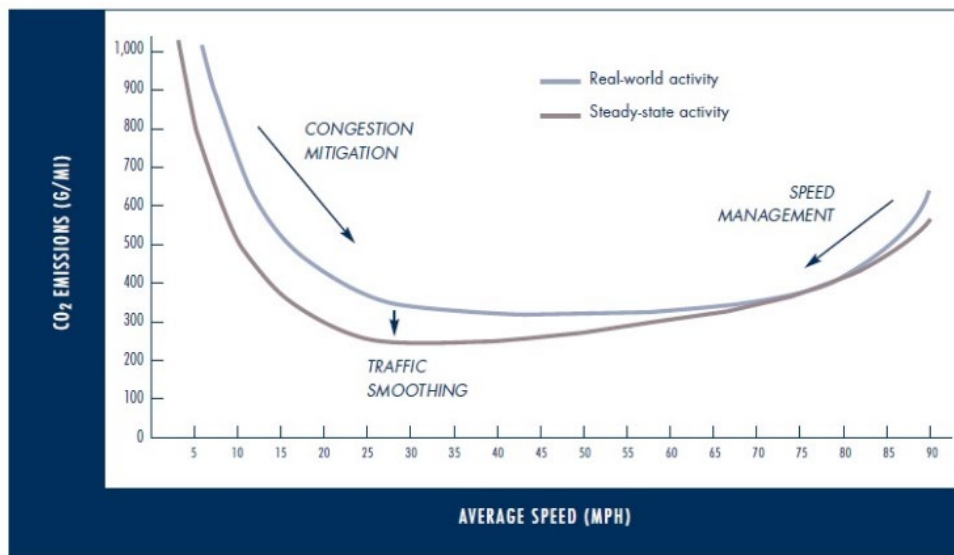
To make this determination, the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. Although climate change is ultimately a cumulative impact, not every individual project that emits greenhouse gases must necessarily be found to contribute to a significant cumulative impact on the environment.

Quantitative Operational Analysis

CO₂ accounts for 95 percent of transportation GHG emissions in the U.S. The largest sources of transportation-related GHG emissions are passenger cars and light-duty trucks, including sport utility vehicles, pickup trucks, and minivans. These sources account for over half of the emissions from the sector. The remainder of GHG emissions comes from other modes of transportation, including freight trucks, commercial aircraft, ships, boats, and trains, as well as pipelines and lubricants. Because CO₂ emissions represent the greatest percentage of GHG emissions it has been selected as a proxy within the following analysis for potential climate change impacts generally expected to occur.

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 ##). 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.

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



Possible Use of Traffic Operation Strategies in Reducing On-road CO₂ Emissions

Source: Barth and Boriboonsomsin 2010

2.11.3. Environmental Consequence

The Segment 3 study area in Butte County is covered by the Butte County Association of Governments (BCAG) travel demand forecast model, which is in the Trans CAD software and has a 2014 base year and 2020 and 2040 future years. Segments 4 and 5 in Yuba County are covered by the Sacramento Area Council of Governments' (SACOG) SACSIM travel demand forecast model, which is in the Cube software and has a 2012 base year and a 2036 future year.

For the SR 70 projects, a travel demand forecast model was developed starting with the BCAG model and adding roadway network for the northwest portion of Yuba County along the SR 70 corridor north of Marysville. The roadway network and land use for the added portion of Yuba County were based on the SACSIM model for the corresponding locations. After the base year model was validated, year 2020 and 2040 models were prepared using the same process.

While EMFAC has a rigorous scientific foundation and has been vetted through multiple stakeholder reviews, its emission rates are based on tailpipe emission test data. The numbers are estimates of CO₂ emissions and not necessarily the actual CO₂ emissions. The model does not account for factors such as the rate of acceleration and the vehicles' aerodynamics, which would influence CO₂ emissions. To account for CO₂ emissions, ARB's GHG Inventory follows the IPCC guideline by assuming complete fuel combustion, while still using EMFAC data to calculate CH₄ and N₂O emissions. Though EMFAC is currently the best available tool for use in calculating GHG emissions, it is important to note that the CO₂ numbers provided are only useful for a comparison of alternatives.

Using the project’s travel demand forecast model, Vehicle Miles Traveled (VMT) was measured over the entire model area for Alternative 4 (two lanes). To estimate model-wide VMT for Alternative 3 (four lanes), the Alternative 4 VMT was modified by replacing VMT in the project area (SR 70 from Marysville to East Gridley Road) with the corresponding project area VMT from the Alternative 3 model. This eliminated the effect of model “noise,” which introduced VMT changes in Oroville and Chico that would be unrelated to changes in the project area. In addition to estimating the total, VMT was further classified into 5-mph speed bins. Since the study area is at the southern border of the model, the vehicles traveling through the study area will have VMT that occurs outside of the model in the rest of Yuba County and points south. Since the speed that this external VMT would be traveling at is unknown, the VMT is excluded from this analysis.

The Office of Planning and Research (OPR) Technical Advisory on Evaluating Transportation Impacts in CEQA provides a method to estimate induced travel (VMT) from a roadway capacity increasing project, but it notes that the method may not be suitable for rural locations “which are neither congested nor projected to become congested.” Given that the SR 70 study area is rural, the VMT estimates presented here are calculated directly from the travel demand forecast model. The estimates of induced travel are provided in the SR 70 Segment 3 Transportation Analysis Report.

The GHG emissions are calculated using estimates of VMT by 5-mph speed bin increments and the EMFAC 2017 emissions factors from the California Air Resources Board (CARB).

Results and Analysis

Vehicle Miles Traveled (VMT) Estimates

		Horizon Year 2043	
Time Period	Existing Year (2018)	Build (Alternative 3)	No-Build (Alternative 4)
Daily	5,697,500	8,015,630	8,015,620
AM & PM Peak Hours	985,800	1,392,360 (41% increase)	1,392,360

The above table presents the model area VMT for daily and the AM and PM peak hours under the analysis scenarios. Compared to existing (2018) conditions, horizon year (2043) conditions would have *41 percent more VMT*. This increase is due to the growth in population, employment, students and external travel. With the improved travel time provided by four lanes on SR 70 (Alternative 3) compared to the current configuration (Alternative 4), horizon year (2043) VMT is

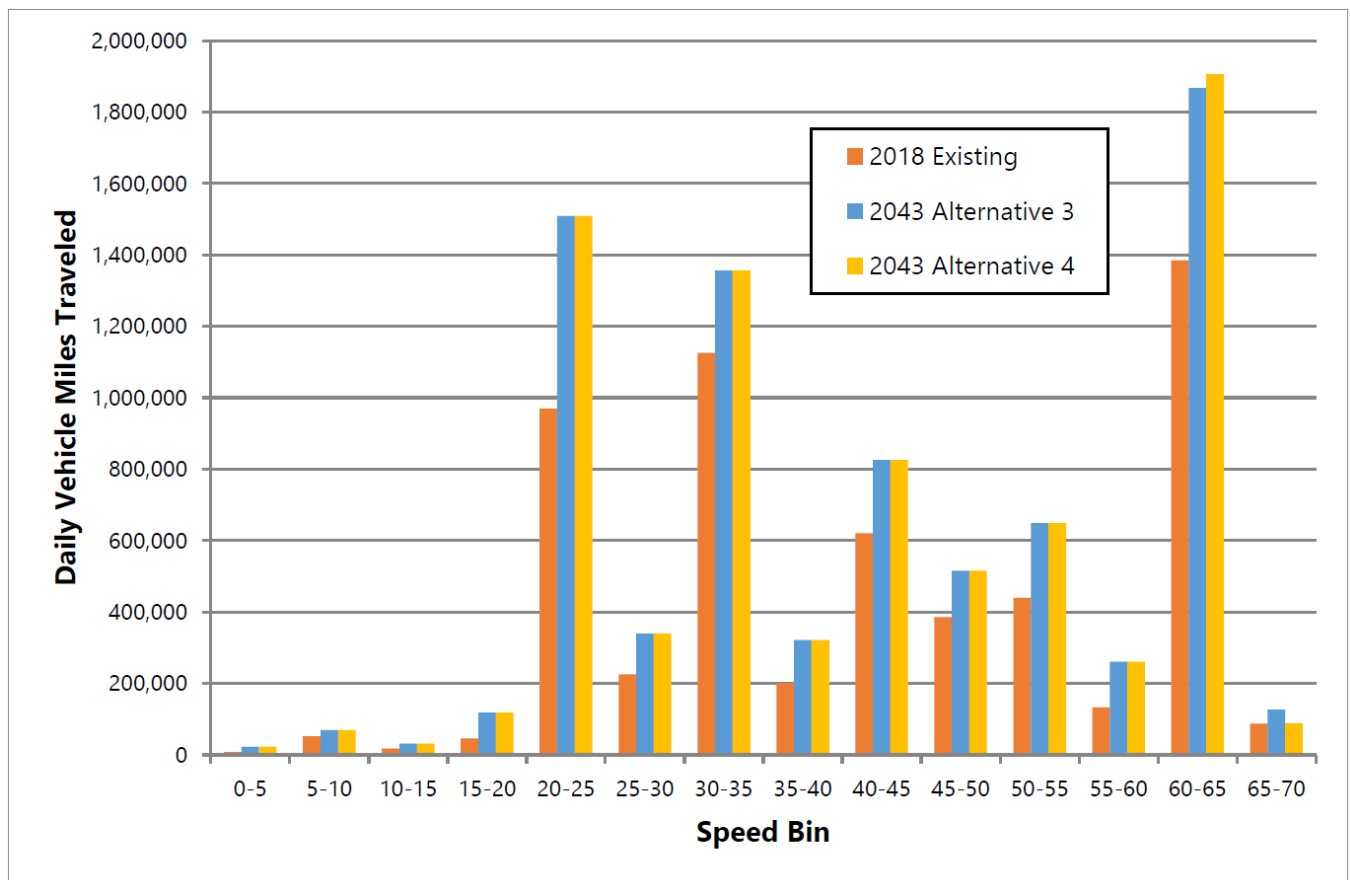
projected to increase slightly since some travelers would take advantage of the higher travel speeds on SR 70 and use a longer route to travel more quickly. However, the VMT increase would occur during the off-peak hours since the sum of the AM and PM peak hour VMT would remain the same. The magnitude of the VMT change would be very small – less than 0.0002 percent on an area-wide basis.

Speed Bin Analysis

Speed Bin Analysis was performed to determine what speeds were producing the greatest GHG emissions and how speed alone is a major contributing factor to GHG significance. Although speed is only one variable that contributes to GHG emissions, it is the only project level GHG reduction measure that is quantifiable, project specific, and a direct GHG offset.

The current travel demand forecasting model (*California Air Resources Board EMFAC2017*) uses a free-flow speed of **65 mph** for SR 70 in the project area (East Gridley Road in Butte County to the Marysville city limits in Yuba County). The CARB EMFAC2017 Web Database (<https://www.arb.ca.gov/emfac/2017/>) is also used to estimate pollutant emissions for the SR 70 Segment 3 project alternatives based on the VMT by speed bin values.

The table below shows the daily VMT by speed bin for the project alternatives under the horizon year (2043). The four-lane alternative (Alternative 3) would have more travel in the 65-70 mph speed bin and less in the 60 to 65 mph speed bin compared to the two-lane alternative (Alternative 4). The difference is based on the average travel speed on SR 70 with four versus two lanes.



Design features could be added to the SR 70 corridor to reduce the operating and/or posted speed so that fewer GHG emissions would occur. Potential speed-reduction design features are listed below.

- Reduce speed limit to 60 mph
- Add edge line buffer striping of 2 to 3 feet, like a bicycle lane buffer, and consider making the travel lane width 11 feet with placement of buffer
- Adjust placement of rumble strips and 6-inch pavement markings for center and edge lines so that the nominal 12-foot lane is relatively narrow when measured between the inside edges of the pavement markings
- Add retro-reflective strips on signposts that are proximate to the travel way
- Install flexible post delineators in the median at key intersections
- Close the two-way left-turn lane to traffic at locations away from driveways to narrow the roadway

In addition to the GHG emission reduction potential, these design features would provide safety benefits by reducing both the potential for collisions and severity of collisions.

The travel demand forecasting model was used to estimate the effect of changing the operating speed from 65 to 55 mph on the SR 70 under Alternative 3. Figure 2 shows the change in VMT by speed bin with the lower speed. Most of the change in VMT occurs in the 50 to 55 and 60 to 65 bins. Using the VMT by speed bin output, GHG emissions were calculated using EMFAC2017 as shown in Table 4. Reducing the speed on SR 70 from 65 to 55 mph would reduce GHG emissions by about 95 tons per day, or 28,500 tons per year. This measure would more than offset the increase of 5,700 tons per year with Alternative 3. Given the magnitude of the change in GHG emissions with a reduction in speed from 65 to 55 mph, reducing the speed from 65 to 60 mph would likely also offset the 5,700 ton per year increase in GHG emissions with Alternative 3.

Construction Emissions

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

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

All construction contracts include Caltrans Standard Specifications Section 7-1.02A and 7 1.02C, Emissions Reduction, which require contractors to comply with all laws applicable to the project and to certify they are aware of and will comply with all ARB emission reduction regulations; and Section 14-9.02, Air Pollution Control, which requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes. Certain common regulations, such as equipment idling restrictions, that reduce construction vehicle emissions also help reduce GHG emissions.

Construction equipment emissions

Diesel exhaust particulate matter is a California-identified toxic air contaminant, and localized issues may exist if diesel-powered construction equipment is operated near sensitive receptors.

Construction emissions were estimated using the latest Caltrans' Model, CAL-CET2018 (version 1.1). Construction-related emissions for the proposed project are presented in the below table.

The emissions presented are based on the best information available at the time of calculations.
The emissions represent the daily construction emissions.

Construction Emissions for Roadways.

	PM10	PM2.5	CO	NOx	CO2
	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)
Land Clearing/Grubbing	104.9	11.1	9.2	11.2	2,509.8
Roadway Excavation/Removal	388.7	40.1	16.7	18.9	3,510.3
Structural Excavation/Removal	35.2	3.9	3.3	6.7	1,438.5
Base/Subbase/Imported Borrow	71.7	9.1	27.1	28.6	5,134.4
Structure Concrete	0.5	0.5	4.3	8.3	1,667.6
Paving	0.9	0.9	5.1	13.6	2,557.8
Drainage/Environment/Landscaping	1.4	1.4	7.7	18.5	3,367.7
Traffic	0.7	0.7	5.6	13.8	4,057.2
Signalization/Signage/Striping/Painting					
Project Total daily average (lbs)	604.0	67.8	79.1	119.5	24,243.3
Project Total (tons)	3.2	0.6	2.5	4.0	802.0

Implementation of the following measures will reduce air quality impacts resulting from construction activities. Please note that although these measures are anticipated to reduce construction-related emissions, these reductions cannot be quantified at this time.

The construction contractor must comply with the Caltrans' Standard Specifications in Section 14-9 (2018). Section 14-9-02 specifically requires compliance by the contractor with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations and local ordinances.

- Construction equipment and vehicles will be properly tuned and maintained. All construction equipment will use low sulfur fuel as required by CA Code of Regulations Title 17, Section 93114.
- Alternative fuels such as renewable diesel should be used for construction equipment.
- Limit idling to 5 minutes for delivery and dump trucks and other diesel-powered equipment.
- Schedule truck trips outside of peak morning and evening commute hours.
- Reduce construction waste and maximize the use of recycled materials (reduces consumption of raw materials, reduces landfill waste, and encourages cost savings).
- Incorporate measures to reduce consumption of potable water.
- Encourage Improved fuel efficiency from construction equipment (examples provided below):
 - Maintain equipment in proper tune and working condition
 - Right size equipment for the job
 - Use equipment with new technologies
- Construction Environmental Training: Supplement existing training with information regarding methods to reduce GHG emissions related to construction.
- Encourage the use of alternative bridge construction (ABC) (reduce construction windows, use of more precast elements that in turn reduce need for additional falsework, forms, bracing, etc.)
- Maximize use of recycled materials (e.g., tire rubber).
- Salvage large removed trees for lumber or similar on-site beneficial uses other than standard wood-chipping. (E.g., use in roadside landscape projects or green infrastructure components).
- On-site recycling of existing project features is encouraged: (E.g., MBGR, light standards, sub-base granular material, or native material that meets Caltrans specifications for incorporation into new work).
- Lower the rolling resistance of highway surfaces as much as possible while still maintaining design and safety standards.

- Earthwork Balance: Reduce the need for transport of earthen materials by balancing cut and fill quantities.
- Cold in-place recycling: This pavement rehabilitation treatment is used on low traffic-volume, hot mix asphalt (HMA) pavements to extend the pavement service life and to recycle natural resources. The treatment also reduces emissions and energy use associated with processing and hauling these materials.
<https://www.dot.ny.gov/programs/climate-change/activities> .
- Reduce need for electric lighting by using ultra-reflective sign materials that are illuminated by headlights.

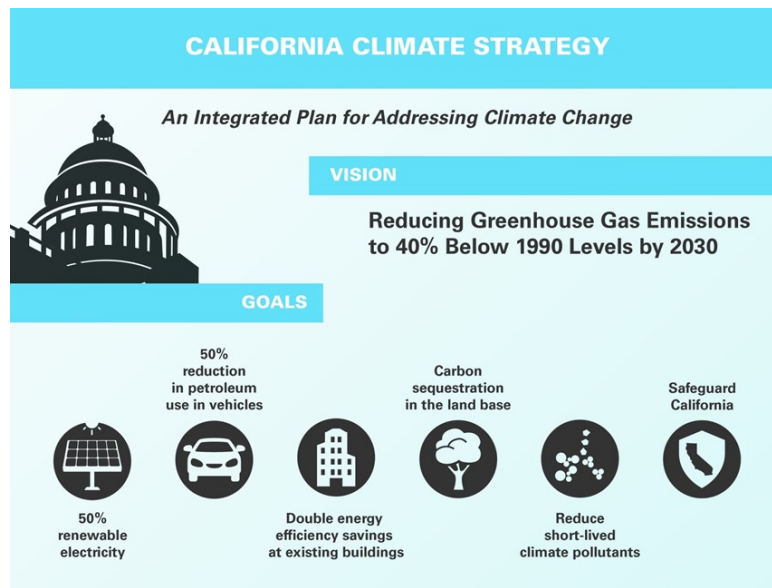
2.11.4. Avoidance, Minimization, and Mitigation

Greenhouse Gas Reduction Strategies

Statewide Efforts

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

THE GOVERNOR'S CLIMATE CHANGE PILLARS: 2030 GREENHOUSE GAS REDUCTION GOALS



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

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

Caltrans Activities

Caltrans continues to be involved on the Governor's Climate Action Team as the ARB works to implement EOs S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. EO B-30-15, issued in April 2015, and SB 32 (2016), set a new interim target to cut GHG emissions to 40 percent below 1990 levels by 2030. The following major initiatives are underway at Caltrans to help meet these targets.

California Transportation Plan (CTP 2040)

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

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

Caltrans Strategic Management Plan

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

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

Funding and Technical Assistance Programs

In addition to developing plans and performance targets to reduce GHG emissions, Caltrans also administers several funding and technical assistance programs that have GHG reduction benefits. These include the Bicycle Transportation Program, Safe Routes to School, Transportation Enhancement Funds, and Transit Planning Grants. A more extensive description of these programs can be found in *Caltrans Activities to Address Climate Change* (2013).

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

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

Project-Level GHG Reduction Strategies

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

The below listed strategies have no known quantitative GHG emission offset. The projected emissions totals (19 metric tons per day, 5,700 metric tons per year) under the build alternative (Alternative 3) may be partially or entirely offset by one or more of the following measures. All project-level reduction strategies comply with the California Air Resources Board (CARB) Scoping Plan (2017) for GHG reduction goals.

Speed Limit (GHG emissions reduction measure)

The posted speed under the current conditions is 55 mph, a speed which produces less GHG overall because vehicle engines operate less efficiently as speed increases beyond 50 mph and decrease in efficiency as speed increases. GHG emissions would not be reduced by increasing travel speed but rather by reducing or limiting it.

Increasing overall size and width of the highway, adding passing lanes, and increasing the visual space of the highway will have a net overall effect of increased speeds beyond the current conditions. Design features to offset this effect would be to limit operating speed to *60 mph*. *Reducing the speed of the highway will offset the GHG emissions by more than 19 tons per day* under the build alternative (Alternative 3).

Class III Bicycle Lanes (VMT and GHG emissions reduction measure)

Class III Bikeway (Bike Route). Bike routes are shared facilities which serve either to: (a) Provide continuity to other bicycle facilities (usually Class II bikeways); or (b) Designate preferred routes through high demand corridors. As with bike lanes, designation of bike routes should indicate to bicyclists that there are advantages to using these routes as compared with alternative routes. This means that responsible agencies have taken actions to assure that these routes are suitable as shared routes and will be maintained in a manner consistent with the needs of bicyclists. Normally, bike routes are shared with motor vehicles.

Commuter Ride-share and Bus Transit Facilities (VMT and GHG emissions reduction measure)

Park and Ride and bus transit facilities are typically placed to enhance corridor efforts to reduce congestion and to improve air quality usually associated with other transportation opportunities such as carpool/HOV lanes, bus and transit utilization, ride-sharing, and other multi modal methods of transportation. The specific choice as to location and design should be supported by a detailed analysis of demand and the impact of a Park and Ride facility based upon these parameters:

- Reduce VMT
- Decrease corridor congestion
- Align with community needs
- Improve air quality
- Facilitate transit connectivity
- Improve overall safety
- Facilitate multi-modal opportunities.

Park and Ride/Bus facilities are to be designed as multimodal facilities. Provisions for pedestrians, bicyclists, transit, single-occupancy vehicles, and multi-occupancy vehicles are to be provided as appropriate. The local transit provider should be consulted to determine if the facility should provide connections to transit. In general, the function of the facility is to take precedent over the form of the facility; however, special consideration for the safety and security of all users is fundamental to the success of the facility. The design of a Park and Ride facility should consider the operations and maintenance of the facility, both in terms of effort as well as safety. Any necessary funding and agreements need to allow appurtenant facilities on site and should be in place early in the project development process.

Caltrans proposes to pre-select a location for commuter parking which provides a connection point for public access to a variety of modal options. The Caltrans District Park and Ride Coordinator is responsible for approving site selection. The concept and general design for Park and Ride facilities must be coordinated by the District Landscape Architect. Additional information on Park and Ride facilities can be obtained from the Headquarters Park and Ride Coordinator in the Office of System Management Operations in the Division of Traffic Operations. Additional guidance on Park and Ride facilities can be found in the AASHTO Publication "Guide for Park and Ride Facilities" (2004).

ZEV/PEV Charging Station (GHG emissions reduction measure)

Zero emission vehicle (ZEV) is a zero-emission vehicle with no tailpipe emissions. These cars run on electric motors and are powered by electricity delivered from batteries or hydrogen and fuel cells. In contrast to conventional internal combustion vehicles, ZEVs prevent air pollution, lower greenhouse gas emissions, and help integrate renewable energy into the transportation sector. There are two kinds of ZEVs: plug-in electric vehicles (PEVs) and hydrogen fuel cell electric vehicles.

In 2012, Governor Brown issued Executive Order B-16-12 directing state government to help accelerate the market for zero-emission vehicles (ZEVs) in California. This Executive Order calls for 1.5 million ZEVs in California by 2025 and establishes several milestones on the pathway toward this target. The Administration's 2013 ZEV Action Plan then identified specific actions state government would take to meet the milestones of the Executive Order.

The project proposes to program and fund one or more PEV electric charging station/s outside of the project limits, but within the SR70 Corridor between Marysville and Oroville. The location of the PEV charging station will be strategically located to facilitate the use of PEVs on SR70 within the project limits based on origin destination data.

CEQA Conclusion

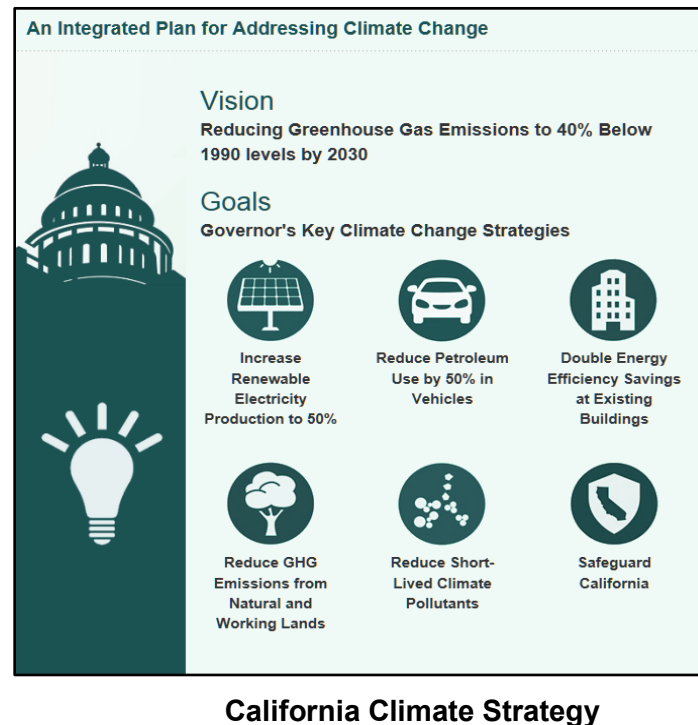
Although the project is a capacity increasing project, the GHG analysis shows an increase in emissions that can be offset or lowered by the proposed GHG reduction measures. The model projection for VMT growth is less than 0.0002 percent on an area-wide basis. Setting speed limits and including Class III bicycle lanes in the project design is shown to offset the GHG emissions impact. Executing the installation of a park and ride facility and ZEV/PEV charging station would help offset tailpipe emissions and VMT projections. It is therefore concluded that the project will have a "less than significant" impact with GHG reduction measures.

GREENHOUSE GAS REDUCTION STRATEGIES

Statewide Efforts

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

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



The transportation sector is integral to the people and economy of California. To achieve GHG emission reduction goals, it is vital that the state build on past successes in reducing criteria and toxic air pollutants from transportation and goods movement. GHG emission reductions will come from cleaner vehicle technologies, lower-carbon fuels, and reduction of vehicle miles traveled (VMT). A key state goal for reducing greenhouse gas emissions is to reduce today's petroleum use in cars and trucks by up to 50 percent by 2030 (State of California 2019).

In addition, SB 1386 (Wolk 2016) established as state policy the protection and management of natural and working lands and requires state agencies to consider that policy in their own decision making. Trees and vegetation on forests, rangelands, farms, and wetlands remove carbon dioxide from the atmosphere through biological processes and sequester the carbon in above- and below-ground matter.

Caltrans Activities

Caltrans continues to be involved on the Governor's Climate Action Team as the ARB works to implement EOs S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. EO B-30-15, issued in April 2015, and SB 32 (2016), set an interim target to cut GHG emissions to 40 percent below 1990 levels by 2030. The following major initiatives are underway at Caltrans to help meet these targets.

California Transportation Plan (CTP 2040)

The California Transportation Plan (CTP) is a statewide, long-range transportation plan to meet our future mobility needs and reduce GHG emissions. In 2016, Caltrans completed the California Transportation Plan 2040, which establishes a new model for developing ground transportation systems, consistent with CO₂ reduction goals. It serves as an umbrella document for all the other statewide transportation planning documents. Over the next 25 years, California will be working to improve transit and reduce long-run repair and maintenance costs of roadways and developing a comprehensive assessment of climate-related transportation demand management and new technologies rather than continuing to expand capacity on existing roadways.

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

California Strategic Management Plan

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

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

Funding and Technical Assistance Programs

In addition to developing plans and performance targets to reduce GHG emissions, Caltrans also administers several sustainable transportation planning grants. These grants encourage local and regional multimodal transportation, housing, and land use planning that furthers the region's RTP/SCS; contribute to the State's GHG reduction targets and advance transportation-related GHG emission reduction project types/strategies; and support other climate adaptation goals (e.g., Safeguarding California).

Caltrans Policy Directives and Other Initiatives

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

Adaptation

Reducing GHG emissions is only one part of an approach to addressing climate change. Caltrans must plan for the effects of climate change on the state's transportation infrastructure and strengthen or protect the facilities from damage. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and their intensity, and in the frequency and intensity of wildfires. Flooding and erosion can damage or wash out roads; longer periods of intense heat can buckle pavement and railroad tracks; storm surges combined with a rising sea level can inundate highways. Wildfire can directly burn facilities and indirectly cause damage when rain falls on denuded slopes that landslide after a fire. Effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. Accordingly, Caltrans must consider these types of climate stressors in how highways are planned, designed, built, operated, and maintained.

Federal Efforts

Under NEPA assignment, Caltrans is obligated to comply with all applicable federal environmental laws and FHWA NEPA regulations, policies, and guidance.

The U.S. Global Change Research Program (USGCRP) delivers a report to Congress and the president every 4 years, in accordance with the Global Change Research Act of 1990 (15 U.S.C.

ch. 56A § 2921 et seq). The Fourth National Climate Assessment, published in 2018, presents the foundational science and the “human welfare, societal, and environmental elements of climate change and variability for 10 regions and 18 national topics, with particular attention paid to observed and projected risks, impacts, consideration of risk reduction, and implications under different mitigation pathways.” Chapter 12, “Transportation,” presents a key discussion of vulnerability assessments. It notes that “asset owners and operators have increasingly conducted more focused studies of particular assets that consider multiple climate hazards and scenarios in the context of asset-specific information, such as design lifetime” (USGCRP 2018).

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

FHWA order 5520 (Transportation System Preparedness and Resilience to Climate Change and Extreme Weather Events, December 15, 2014) established FHWA policy to strive to identify the risks of climate change and extreme weather events to current and planned transportation systems. FHWA has developed guidance and tools for transportation planning that foster resilience to climate effects and sustainability at the federal, state, and local levels (FHWA 2019).

State Efforts

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

- *Adaptation* to climate change refers to adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.
- *Adaptive capacity* is the “combination of the strengths, attributes, and resources available to an individual, community, society, or organization that can be used to prepare for and undertake actions to reduce adverse impacts, moderate harm, or exploit beneficial opportunities.”

- *Exposure* is the presence of people, infrastructure, natural systems, and economic, cultural, and social resources in areas that are subject to harm.
- *Resilience* is the “capacity of any entity – an individual, a community, an organization, or a natural system – to prepare for disruptions, to recover from shocks and stresses, and to adapt and grow from a disruptive experience”. Adaptation actions contribute to increasing resilience, which is a desired outcome or state of being.
- *Sensitivity* is the level to which a species, natural system, or community, government, etc., would be affected by changing climate conditions.
- *Vulnerability* is the “susceptibility to harm from exposure to stresses associated with environmental and social change and from the absence of capacity to adapt.” Vulnerability can increase because of physical (built and environmental), social, political, and/or economic factor(s). These factors include, but are not limited to: ethnicity, class, sexual orientation and identification, national origin, and income inequality.² Vulnerability is often defined as the combination of sensitivity and adaptive capacity as affected by the level of exposure to changing climate.

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

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

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

understanding of processes and potential impacts in California were incorporated into the *State of California Sea-Level Rise Guidance Update* in 2018.

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

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

Caltrans Vulnerability Assessments

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

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

The climate change data in the assessments were developed in coordination with climate change scientists and experts at federal, state, and regional organizations at the forefront of climate science. The findings of the vulnerability assessments will guide analysis of at-risk assets and development of adaptation plans to reduce the likelihood of damage to the State Highway System, allowing Caltrans to both reduce the costs of storm damage and to provide and maintain transportation that meets the needs of all Californians.

Sea Level Rise Analysis

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

3. Chapter 3 – California Environmental Quality Act (CEQA) Evaluation

The proposed project is a joint project by the California Department of Transportation (Department) and the Federal Highway Administration (FHWA) and is subject to state and federal environmental review requirements. Project documentation, therefore, has been prepared in compliance with both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). FHWA's responsibility for environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 United States Code Section 327 (23 USC 327) and the Memorandum of Understanding dated December 23, 2016 and executed by FHWA and Caltrans. The Department is the lead agency under CEQA and NEPA.

One of the primary differences between NEPA and CEQA is the way significance is determined. Under NEPA, significance is used to determine whether an EIS, or a lower level of documentation, will be required. NEPA requires that an EIS be prepared when the proposed federal action (project) *has* the potential to “significantly affect the quality of the human environment.” The determination of significance is based on context and intensity. Some impacts determined to be significant under CEQA may not be of sufficient magnitude to be determined significant under NEPA. Under NEPA, once a decision is made regarding the need for an EIS, it is the magnitude of the impact that is evaluated, and no judgment of its individual significance is deemed important for the text. NEPA does not require that a determination of significant impacts be stated in the environmental documents.

CEQA, on the other hand, does require the Department to identify each “significant effect on the environment” resulting from the project and ways to mitigate each significant effect. If the project may have a significant effect on any environmental resource, then an EIR must be prepared. Each and every significant effect on the environment must be disclosed in the EIR and mitigated if feasible. In addition, the CEQA Guidelines list a number of “mandatory findings of significance,” which also require the preparation of an EIR. There are no types of actions under NEPA that parallel the findings of mandatory significance of CEQA. This chapter discusses the effects of this project and CEQA significance.

CEQA Environmental Checklist

This checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects will indicate that there are no impacts to a particular resource. A NO IMPACT answer in the last column reflects this determination. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

Project features, which can include both design elements of the project, and standardized measures that are applied to all or most Caltrans projects such as Best Management Practices (BMPs) and measures included in the Standard Plans and Specifications or as Standard Special Provisions, are considered to be an integral part of the project and have been considered prior to any significance determinations documented below; see Chapters 1 and 2 for a detailed discussion of these features. The annotations to this checklist are summaries of information contained in Chapter 2 to provide the reader with the rationale for significance determinations; for a more detailed discussion of the nature and extent of impacts, please see Chapter 2. This checklist incorporates by reference the information contained in Chapters 1 and 2.

AESTHETICS

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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"/>

a, b, c, d) Less Than Significant

There are no roadways within or near the project area that are designated as scenic highways or routes worthy of protection for maintaining and enhancing scenic viewsheds. Therefore, implementation of the proposed project would not damage scenic resources such as trees, rock outcroppings, and historic buildings along a scenic highway. The proposed project would not change the look and feel of the rural commercial agricultural landscape and therefore a determination of “no impact” is appropriate.

AGRICULTURE AND FOREST RESOURCES

<p>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.</p>				
Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>

a, e) Less Than Significant

As discussed in the Farmland section in Chapter 2, implementation of the proposed project would involve the conversion of a small percentage of prime farmland not currently used for transportation purposes to transportation ROW, which would require easements. Proposed project improvements requiring temporary construction disturbance, temporary easements, and permanent easements would affect lands within the project area that are mapped as Grazing Land (3.5 acres), Prime Farmland (14.8 acres), Unique Farmland (2.1 acres), Farmland of Statewide Importance (4.9 acres), and Other Land (3.2 acres) by the California Department of Conservation Farmland Mapping and Monitoring Program. The build alternative would require permanent conversion of 28.27 total acres of farmland, which represents approximately 0.2 percent of the County's important farmland. Therefore, the impact is determined to be "less than significant."

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:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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"/>

a, c, d) Less Than Significant

Discussed in Chapter 2, the proposed project is located in the Sacramento Valley Air Basin and is within the jurisdiction of the Feather River Air Quality Management District (FRAQMD) and the California Air Resources Board (CARB). The FRAQMD is the primary agency responsible for writing the Air Quality Management Plan (AQMP) in cooperation with Sacramento Area Council of Governments (SACOG), local governments, and the private sector. The AQMP provides the blueprint for meeting state and federal ambient air quality standards. This project is not a capacity-increasing transportation project. It would have no impact on traffic volumes and would generate a less-than-significant amount of pollutants during construction due to the very short duration of project construction. The proposed project is included in SACOG's Regional Transportation Plan (RTP) and Regional Transportation Improvement Program (RTIP), both of which were found to be conforming (see Air Quality section of Chapter 2). Therefore, the proposed project would not conflict with the AQMP, violate any air quality standard, result in a net increase of any criteria pollutant, or expose sensitive receptors to substantial pollutant concentrations. Impacts would be less than significant. No mitigation is required.

BIOLOGICAL RESOURCES

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 checked="" type="checkbox"/>	<input 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 Game or US 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 checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>

a, b) Less Than Significant with Mitigation Incorporated

As discussed in Chapter 2, avoidance measures will be necessary to minimize impacts under Wetlands, to include permitting. The proposed project construction would result in a discharge of fill material into potential waters of the United States; therefore, an Individual Section 404 CWA permit likely would be required for the proposed project. This loss is considered minimal and “less than significant” however requires mitigation due to the permanency of the loss and is therefore determined to be “less than significant with

mitigation". Also discussed in Chapter 2, the proposed project would impact 0.23 acres of Valley Foothill Riparian and 0.22 acres of Other Waters of the US (OWUS) and require land bank mitigation ratios ranging from 1:1 to 3:1 (.45 - .1.35 acres) which will be determined in coordination with USACE.

d) less than significant impact

Chapter 2 discusses the probability and likelihood of no migratory fish being present in Honcut Creek. North Honcut Creek flows east to west and the project is located approximately 3.30 miles east from its confluence with the Feather River. Approximately 1.60 miles upstream from the North Honcut Creek, the creek crosses under the Union Pacific Railroad and starts to become diverted for agricultural purposes. At the south end of the BSA, there is North Honcut Creek, South Honcut Creek, and Wilson Creek. North Honcut Creek is a perennial creek with potential fish bearing habitat. South Honcut Creek is an intermittent creek and Wilson Creek is an ephemeral, historical, overflow channel. South Honcut and Wilson Creeks convey water after substantial rains and for short periods of time. None of these channels provide suitable fish passage habitat. However, measures will be implemented to ensure any potential for fish disturbance is minimized.

e, f) No Impact

Caltrans proposes to mitigate for loss of Valley Riparian and potential loss of Jurisdictional waters and therefore is not in conflict with any local ordinances, policies, or adopted habitat plans in the project area.

CULTURAL RESOURCES

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a, b, c & d) Less than significant

As discussed in the *Tribal and Cultural Resources* section in Chapter 2, the area of potential effect (APE) encompasses no known National Register of Historic Places (NRHP)-eligible, NRHP-listed, or previously unevaluated archaeological resources. The local tribal communities were notified, and their concerns did not raise specific concerns over paleontological or cultural resources. Similarly, the architectural APE encompasses no known NRHP-eligible, NRHP-listed, or previously unevaluated built environment resources. However, the potential for discovery of unknown cultural resources does exist. The project would implement Caltrans' standard measures for paleontological avoidance during construction. Therefore, the impacts on archeological resources are less than significant.

GEOLOGY AND SOILS

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) No impact

The project has no identified risk of exposing people to earthquakes or landslides.

b) No impact

The project has no identified risk of “substantial” topsoil loss.

c, d, e) No impact

The project has no identified risk of soil being unstable or perc tested. Geotechnical studies have not yet been conducted.

GREENHOUSE GAS EMISSIONS

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a, b) **Less Than Significant with Mitigation Incorporated**

Chapter 2.11 discusses at length the greenhouse gas emissions and quantitative analysis, along with proposed reduction/mitigation measures.

In summary, the increased capacity of the proposed project triggers a requirement to determine a finding of significance. However, the project proposes to offset GHG emissions through reduction measures that will provide multi modal opportunities to reduce GHG tailpipe emissions.

HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 result in a safety hazard for people residing or working in the project area?	<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 result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 type="checkbox"/>	<input checked="" type="checkbox"/>

a-h) No Impact

Outside of Standard Specifications for hazardous waste material handling during construction (SST's are not discussed in the document as they are standard inclusionary measures incorporated into all projects), there are no identified hazardous waste elements in the proposed project.

HYDROLOGY AND WATER QUALITY

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input 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"/>

h, i, j) No Impact

The proposed project does not create any exposure to flood by levee or dam failure. The project is located within a 100-year flood plain which has no recorded history of inundation over the highway.

a-g) Less than significant impact

Chapter 2 discusses the impact on Water Quality and Hydrology. There are no substantial effects or standards for waste discharge that will be violated. The project will require a 404 permit and will encroach on the floodplain, however, there are avoidance and minimization measures designed to reduce any potential for impact the water quality and hydrology of the project area and therefore a less than significant impact is determined.

LAND USE AND PLANNING

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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"/>

a-c) No Impact

The proposed project lies in a rural commercial agriculture land designated use area. As identified in Chapter 2, the project is consistent with land use plans and does not disrupt or divide any communities in the project area or adjacent area.

MINERAL RESOURCES

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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"/>

a, b) **No Impact**

There are no identified mineral resource elements in the proposed project study area or within the local general plan.

NOISE

Would the project result in:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne 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 type="checkbox"/>	<input checked="" 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"/>

a-f) No Impact

Noise analysis/modeling conducted May of 2019 finds no substantial impact in the project area. Noise receptors in the project area are close to threshold amounts under the build alternative and further studies will need to be conducted to determine if noise thresholds are exceeded and trigger noise reduction measures.

POPULATION AND HOUSING

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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"/>

a-c) No Impact

The proposed project has no relocations and displacement necessitating housing elsewhere. Nor will it displace a substantial number of people. Population growth induction is unlikely as the area is zoned commercial agriculture and limited residential per 20+ acre parcels.

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:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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"/>

a) No Impact

The proposed project will not alter the control or uncontrolled access points to the highway and therefore not impact adjacent communities and services.

RECREATION

	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<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"/>

a, b) **No Impact**

There are no identified recreational facilities in the project area.

TRANSPORTATION/TRAFFIC

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>

a, b, c, d, e, f) No Impact

The proposed project under the build alternative will alleviate congestion and increase safety elements, although current LOS is at acceptable levels under current conditions. LOS will be improved under the build alternative to A level. Under the no-build alternative, the LOS will degrade over time to unacceptable levels of E and lower due to horizon year (2043) projections of increased traffic. The amount of traffic growth in horizon year is forecasted at 41%.

The proposed project does not conflict with congestion management program and in fact is forecast to alleviate congestion.

TRIBAL CULTURAL RESOURCES

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

a, b) Less than significant impact

As discussed in the *Tribal and Cultural Resources* section in Chapter 2, the area of potential effect (APE) encompasses no known National Register of Historic Places (NRHP)-eligible, NRHP-listed, or previously unevaluated archaeological resources. The local tribal communities were notified, and their concerns did not raise specific concerns over paleontological or cultural resources. Similarly, the architectural APE encompasses no known NRHP-eligible, NRHP-listed, or previously unevaluated built environment resources. However, the potential for discovery of unknown cultural resources does exist. The project would implement Caltrans' standard measures for paleontological avoidance during construction. Therefore, the impacts on archeological resources are less than significant.

UTILITIES AND SERVICE SYSTEMS

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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"/>

a, b, d, e, f, g) No Impact

There are no identified waste water facilities or elements in the proposed project area0.

c) Less than significant impact

The proposed project will result in increased stormwater facilities and increased capacity of stormwater runoff. The new impervious area exceeds 1-acre, therefore *permanent treatment BMP* will be required. This will include "General Purpose BMPs" selected from Matrix-A of Caltrans' Project Planning Design Guide (PPDG). Discharge of storm water runoff from construction sites has the potential to affect water quality standards, water quality objectives, and beneficial uses. Pollutants and sources typically encountered during construction includes sediment and non-storm water including groundwater, water from cofferdams, dewatering, and water diversions; discharges from vehicle and

equipment cleaning agents, fueling, and maintenance; waste materials and materials handling and storage activities. The primary pollutant of concern during construction is sediment and siltation from disturbed construction areas. Construction BMPs will be required due to temporary sediment and erosion runoff control measures required for the project.

The impact is determined to be “less than significant” with avoidance and minimization measures.

MANDATORY FINDINGS OF SIGNIFICANCE

	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>

a) Less than significant with mitigation incorporated

There will be approximately .45 acres of permanent Valley Riparian and potential jurisdictional Other Waters of the US (OWUS) take which will be mitigated by a ratio of 1:3 for a total of 1.35 acres of land bank purchase.

b) Less than significant

There are other capacity increasing projects both past and present in the SR 70 corridor that are adjacent to the proposed project area which may have a considerable cumulative impact on Greenhouse Gas emissions based on the GHG analysis in this proposed project when viewed in connection with other future probable projects.

c) Less than significant

See b) above.

4. Chapter 4 – Comments and Coordination

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

The Initial Study with Negative Declaration will be made available for public and agency review and comment for 30 days. Caltrans has ensured that the document will be made available to all appropriate parties and agencies, including the following: 1) Responsible agencies, 2) Trustee agencies that have resources affected by the project, 3) other state, federal and local agencies which have regulatory jurisdiction, or that exercise authority over resources which may be affected by the project, 4) public. Copies of the document will be made available at the Caltrans District 3 Office of Environmental Management (M-1) located at 703 B St., Marysville, CA 95901 and at the county library in Gridley and Oroville and Marysville and via the Internet at:

<http://www.dot.ca.gov/dist3/departments/envinternet/Segment3.htm>

5. Chapter 5 – List of Preparers

The following Caltrans District 3 staff contributed to the preparation of this Initial Study.

Michael Ferrini, Associate Environmental Planner. Contribution: Environmental Coordinator and Document Writer

Kelly McNally, Senior Environmental Planner. Contribution: Environmental Branch Chief

Anna Kluge, Associate Environmental Planner. (Natural Sciences) Contribution: Project Biologist, Natural Environmental Study (NES)

William Larson, Associate Environmental Planner (Archaeology). Contribution: Archaeological Survey Report (ASR), Historic Resources Compliance Report (HRCR)

Mark Melani, Hazardous Waste Coordinator. Contribution: Hazardous Waste Survey

Ryan Pommerenck, Air/Noise Coordinator, Noise Study.

Rajive Chadha, NPDES Coordinator. Contribution: Water Quality Assessment Exemption (WQAE)

Youngil Cho, Transportation Engineer. Contribution: Air Quality Study and Noise Study

Cameron Knudsen, Transportation Engineer. Contribution: Project Manager

Brenda Powell-Jones, Senior Environmental Planner. Contribution: Climate Change Policy Advisor, GHG Reviewer.

APPENDICES

Appendix A. CEQA Checklist

CEQA Environmental Checklist

This checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects will indicate that there are no impacts to a resource. A NO IMPACT answer in the last column reflects this determination. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
I. AESTHETICS: Except as provided in Public Resources Code Section 21099, 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) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<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"/>
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 checked="" type="checkbox"/>	<input 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"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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 checked="" type="checkbox"/>	<input type="checkbox"/>
III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management district 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 checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 Wildlife, U.S. Fish and Wildlife Service, or NOAA Fisheries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 state or federally protected wetlands (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 checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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"/>

	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 pursuant to in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
VI. ENERGY: Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VII. GEOLOGY AND SOILS: Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<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 direct or indirect 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 waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) 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"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS: Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IX. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
X. HYDROLOGY AND WATER QUALITY: Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XI. 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) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XII. 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"/>
XIII. NOISE: Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Generation of excessive ground borne vibration or ground borne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XIV. POPULATION AND HOUSING: Would the project:				

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XV. 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"/>
XVI. 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"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION: Would the project:				
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially increase hazards due to a geometric 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"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XVIII. TRIBAL CULTURAL RESOURCES: Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
XIX. UTILITIES AND SERVICE SYSTEMS: Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XX. WILDFIRE: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XXI. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>

Appendix B. Title VI Policy Statement

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY

EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION
OFFICE OF THE DIRECTOR
P.O. BOX 942873, MS-49
SACRAMENTO, CA 94273-0001
PHONE (916) 654-5266
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TTY 711
www.dot.ca.gov



*Flex your power!
Be energy efficient!*

March 2013

NON-DISCRIMINATION POLICY STATEMENT

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964 and related statutes, ensures that no person in the State of California shall, on the grounds of race, color, national origin, sex, disability, religion, sexual orientation, or age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

For information or guidance on how to file a complaint based on the grounds of race, color, national origin, sex, disability, religion, sexual orientation, or age, please visit the following web page: http://www.dot.ca.gov/hq/bep/title_vi/t6_violated.htm.

Additionally, if you need this information in an alternate format, such as in Braille or in a language other than English, please contact the California Department of Transportation, Office of Business and Economic Opportunity, 1823 14th Street, MS-79, Sacramento, CA 95811. Telephone: (916) 324-0449, TTY: 711, or via Fax: (916) 324-1949.

A blue ink signature of Malcolm Dougherty, written in a cursive style.

MALCOLM DOUGHERTY
Director

"Caltrans improves mobility across California"

Appendix C. Avoidance, Minimization and/or Mitigation Summary

Avoidance Summary

Motor vehicle access must be maintained during construction.

- The Contractor will be required to minimize any access delays to driveways or public roadways within or near the work zones.
- The California Highway Patrol will provide COZEED (Construction Zone Enhancement Enforcement Program).

Hazardous Waste/Materials

The following provisions will be included in the construction contract:

1610 Standard Special Provisions (SSP)

- SSP 14-11.09 for Treated Wood Waste is required.
- SSP 15-1.03B for Residue Containing Lead from Paint and Thermoplastic is required. Requires a Lead Compliance Plan (LCP).
- SSP 14-11.07 for Removal of Yellow Traffic Stripe and Pavement Markings with Hazardous Waste Residue.
- Standard Spec 19-1.03D for Buried Man-Made Objects is required.
- Standard Spec 14-11.02F(2) for Hazardous Waste Storage is required. Used to specify a hazardous waste storage location and to require the use of the transport consolidation exemption when necessary.
- Non-Standard Special Provision (NSSP) 14-11.06 for Caltrans Generated Contaminated Soil. Used for excavation, transportation or disposal of material contaminated with petroleum, metals, railroad ballast material, or contaminants other than Aerially Deposited Lead (ADL).

Air Quality

- Caltrans Standard Specifications, a required part of all construction contracts, should effectively reduce and control emission impacts during construction under the provisions of Section 7-1.02C "Emission Reduction" and Section 14-9.03 "Dust Control". Provision 14-9.02 "Air Pollution Control" requires the contractor to comply with all pertinent rules, regulations, ordinances, and statutes of the local air district.

Noise

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

Minimization, Avoidance and Mitigation Summary – Greenhouse Gas

Caltrans proposes the following mitigation measures to find a “less than significant” impact on Greenhouse Gas/Climate Change.

Class III Bicycle Route

- Bicycle route shall conform to the Caltrans Highway Design Manual

Park and Ride Facility

- Park and Ride location shall be determined by the District 3 Park and Ride Coordinator and the District Landscape Architect.

ZEV/PEV Charging Station

- Location to be determined by District 03 Transportation Sustainability Planning.

Mitigation Summary – Biological Resources

Caltrans proposes the following mitigation measures to find a “less than significant” impact on Biological resources.

Land Mitigation Bank Purchase 3:1

Caltrans is anticipating 0.23 acres of permanent Valley Riparian loss and will mitigate at a ratio of 3:1 for a total of .69 acres.

Caltrans is anticipating 0.22 acres of permanent jurisdictional roadside ditch loss and will mitigate at a ratio of 3:1 for a total of .66 acres.

Total land mitigation = 1.35 acres.

Appendix D - List of Technical Studies

Initial Site Assessment (ISA) (Hazardous Waste, Caltrans, 2019)

GGs Biological Assessment – (Biology, Caltrans 2019)

Riparian/Wetlands Biological Assessment- (Biology, Caltrans 2019)

Cultural Resource Compliance – Screening Memo (Cultural Resources, Caltrans 2019)

Water Quality Assessment Exemption (NPDES, Caltrans 2019)

FEMA Floodplain Map – Honcutt Creek

Air Quality Assessment (Air Quality Analysis, Caltrans 2019)

Noise Assessment (Noise Analysis, Caltrans 2019)

Greenhouse Gas Analysis (Fehr & Peers, 2019)

Appendix E – Species List

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Endangered Species Act Species

There is a total of 6 threatened, endangered, or candidate species in the project area and included in this Species List.

Reptiles

NAME

Giant Garter Snake *Thamnophis gigas*

STATUS

No critical habitat has been designated for this species.

Species profile: <https://ecos.fws.gov/ecp/species/4482>

Threatened

Amphibians

NAME

California Red-legged Frog *Rana draytonii*

STATUS

There is **final** critical habitat for this species. Your location is outside the critical habitat.

Species profile: <https://ecos.fws.gov/ecp/species/2891>

Species survey guidelines:

<https://ecos.fws.gov/ipac/guideline/survey/population/205/office/11420.pdf>

Threatened

Fishes

NAME

Delta Smelt *Hypomesus transpacificus*

STATUS

There is **final** critical habitat for this species. Your location is outside the critical habitat.

Species profile: <https://ecos.fws.gov/ecp/species/321>

Threatened

Insects

NAME

Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus*

STATUS

There is **final** critical habitat for this species. Your location is outside the critical habitat.

Species profile: <https://ecos.fws.gov/ecp/species/7850>

Habitat assessment guidelines:

<https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf>

Threatened

Crustaceans

NAME

Vernal Pool Fairy Shrimp *Branchinecta lynchi*

STATUS

There is **final** critical habitat for this species. Your location is outside the critical habitat.

Species profile: <https://ecos.fws.gov/ecp/species/498>

Threatened

NAME

Vernal Pool Tadpole Shrimp *Lepidurus packardii*

STATUS

There is **final** critical habitat for this species. Your location is outside the critical habitat.

Species profile: <https://ecos.fws.gov/ecp/species/2246>

Endangered

Critical habitats

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

ⁱ California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM₁₀, PM_{2.5}, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations

² Federal standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM_{2.5}, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S.

EPA for further clarification and current national policies.

ⁱⁱⁱ On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm. Transportation conformity applies in newly designated nonattainment areas for the 2015 national 8-hour ozone primary and secondary standards on and after August 4th, 2019 (see [Transportation Conformity Guidance for 2015 Ozone NAAQS Nonattainment Areas](#)).

^{iv} ppm = parts per million

^v Transportation conformity requirements for CO no longer apply after June 1, 2018 for the following California Carbon Monoxide Maintenance Areas (see [U.S. EPA CO Maintenance Letter](#)).

¹ California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM₁₀, PM_{2.5}, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations

² Federal standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM_{2.5}, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S.

EPA for further clarification and current national policies.

^{viii} On December 14, 2012, the national annual PM_{2.5} primary standard was lowered from 15 µg/m³ to 12 µg/m³. The existing national 24-hour PM_{2.5} standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15 µg/m³. The existing 24-hour PM₁₀ standards (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

^{ix} µg/m³ = micrograms per cubic meter

^x The 65 µg/m³ PM_{2.5} (24-hr) NAAQS was not revoked when the 35 µg/m³ NAAQS was promulgated in 2006. The 15 µg/m³ annual PM_{2.5} standard was not revoked when the 12 µg/m³ standard was promulgated in 2012. Therefore, for areas designated nonattainment or nonattainment/maintenance for the 1997 and/or 2006 PM_{2.5} NAAQS, conformity requirements still apply until the NAAQS are fully revoked.

¹ California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM₁₀, PM_{2.5}, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations

² Federal standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM_{2.5}, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S.

EPA for further clarification and current national policies.

^{xiii} Final 1-hour NO₂ NAAQS published in the Federal Register on 2/9/2010, effective 3/9/2010. Initial area designation for California (2012) was attainment/unclassifiable throughout. Project-level hot spot analysis requirements do not currently exist. Near-road monitoring starting in 2013 may cause re-designation to nonattainment in some areas after 2016.

^{xiv} On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

^{xv} Secondary standard, the levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant rather than health. Conformity and environmental analysis address both primary and secondary NAAQS.

^{xvi} The ARB has identified vinyl chloride and the particulate matter fraction of diesel exhaust as toxic air contaminants. Diesel exhaust particulate matter is part of PM₁₀ and, in larger proportion, PM_{2.5}. Both the ARB and U.S. EPA have identified lead and various

organic compounds that are precursors to ozone and PM_{2.5} as toxic air contaminants. There are no exposure criteria for adverse health effect due to toxic air contaminants, and control requirements may apply at ambient concentrations below any criteria levels specified above for these pollutants or the general categories of pollutants to which they belong.

^{xvii} Lead NAAQS are not considered in Transportation Conformity analysis.

¹ California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM₁₀, PM_{2.5}, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations

² Federal standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than

once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM_{2.5}, the 24-hour standard is

attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S.

EPA for further clarification and current national policies.

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