STATE ROUTE 70 BINNEY JUNCTION ROADWAY REHABILITATION AND COMPLETE STREETS PROJECT

YUBA COUNTY, CALIFORNIA
DISTRICT 3 – YUB – 70 (PM 14.8-15.7)
EA: 03-0H160/EFIS: 0315000082

Draft Environmental Impact Report



Prepared by the State of California Department of Transportation

Caltrans

October 2024

GENERAL INFORMATION ABOUT THIS DOCUMENT

What's in this document:

The California Department of Transportation (Caltrans) has prepared this Draft Environmental Impact Report (EIR), which examines the potential environmental impacts of the alternatives being considered for the proposed project located in Marysville California. Caltrans is the lead agency under the California Environmental Quality Act (CEQA). The document tells you why the project is being proposed, what alternatives have been considered for the project, how the existing environment could be affected by the project, the potential impacts of each of the alternatives, and the proposed avoidance, minimization, and/or mitigation measures.

What you should do:

- Please read this document.
- Additional copies of this document are available for review at:
    - Caltrans District 3 Office at 703 B Street, Marysville, California
    - Sutter County Library at 750 Forbes Ave., Yuba City, California
- This document may be downloaded at the following website: https://dot.ca.gov/caltrans-near-me/district-3/d3-programs/d3-environmental/d3-environmental-docs
- Attend the public meeting. November 7, 2024
  Location: Caltrans District 3 Office, 703 B Street, Marysville, California, Sierra Nevada Room
  Time: 5:30 PM
- We'd like to hear what you think. If you have any comments about the proposed project, please attend the public meeting and/or send your written comments via postal mail or email to Caltrans by the deadline.
- Send comments via postal mail to:
  Caltrans- District 3 Environmental, Attn: Tracy Robinson, 703 B Street, Marysville, California 95901
- Send comments via email to: yuba.70.binney.junction.project@dot.ca.gov.
- Be sure to send comments by the deadline: December 9, 2024.

What happens next:

After comments are received from the public and reviewing agencies, Caltrans may: (1) give environmental approval to the proposed project, (2) do additional environmental studies, or (3) abandon the project. If the project is given environmental approval and funding is obtained, Caltrans could 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 write to or California Department of Transportation, Environmental Management M3 Branch, 703 B Street, Marysville, California 95901, Attn: Yuba 70 Binney Junction Complete Streets; 530-741-4549 (Voice),or use the California Relay Service 1-800-735-2929 (TTY), 1-800-735-2929 (Voice), or 711.

SCH# TBD
03-YUB-70-PM 14.8-15.7
EA: 03-0H160 / EFIS: 0315000082

Replace Binney Junction Underpass and Marysville Railroad Underpass to provide five lanes on State Route 70 between post miles 14.8 to 15.7 in Yuba County

Draft Environmental Impact Report

Submitted Pursuant to: (State) Division 13, California Public Resources Code

THE STATE OF CALIFORNIA
Department of Transportation

Responsible Agencies: California Transportation Commission

Erin Dwyer
Office Chief
North Region Environmental
California Department of Transportation
CEQA/NEPA Lead Agency

10/22/24
Date

The following persons may be contacted for more information about this document:
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SUMMARY

NEPA Assignment

With NEPA Assignment, FHWA assigned, and Caltrans assumed all of the U.S. 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.

Lead Agencies and CEQA/NEPA Documentation

The proposed project is a joint project by the California Department of Transportation (Caltrans) 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). Caltrans is the lead agency under both CEQA and NEPA.

A NEPA Environmental Assessment (EA) with Finding of No Significant Impact (FONSI) was prepared and approved on December 7,2020. Although this draft EIR is specific to CEQA, it does follow a similar format to maintain consistency with the approved EA/FONSI. In addition, some impacts determined to be significant under CEQA may not lead to a determination of significance under NEPA as NEPA is concerned with the significance of the project as a whole, and often a "lower level" document is prepared for NEPA.

On July 24, 2024, the original Environmental Impact Report was decertified, in part, due to two procedural timing errors. Additionally, the court also determined the prior EIR had the following substantive errors: (1) ambiguity as to the estimated build time and detours, (2) insufficient details regarding the traffic management plan during construction and drainage system changes; and (3) insufficient details regarding the sidewalks and additional traffic lights to make finding of less than significant impacts. For the project to move forward, a new Draft EIR is required to correct those errors. This document corrects the CEQA errors in the former document and provides additional detail to ensure CEQA compliance. These issues are addressed in the following sections:

Traffic Management Plan (TMP), Appendix H, Pages 308-311

- Public Awareness Campaign
- Motorist Information
- Incident Management
- Construction Methods
- Alternate Route Plan

Correct Build Time - Introduction

Drainage Systems - Page 126

- Pump Plant
- Drainage System

Community Impacts

Pedestrian and Bicycle Safety (during construction and operation) Page 6

Emergency Access/response (during construction) - Pages 68-70

Lane Closures Pages 3-5

This Draft EIR will be circulated for public review, and after receiving comments from the public and reviewing agencies, a Final EIR will be prepared. The Final EIR will include responses to comments received on the Draft EIR If the decision is made to approve the project, a Notice of Determination would be published for compliance with CEQA.

Introduction

The California Department of Transportation (Caltrans), in cooperation with Yuba County, City of Marysville, and Union Pacific Railroad (UPRR), proposes to rehabilitate State Route 70 (SR 70), in the City of Marysville, from 0.1 mile south

of 14th Street (PM 14.8) to just north of Cemetery Road (PM 15.7) in Yuba County. This project is funded through the Caltrans State Highway Operations an Protection.

Overview of the Project Area

State Route (SR) 70 is an existing facility and is a four-lane conventional highway which transitions to two lanes near 15th Street in Marysville. The project area contains several short city blocks, numerous driveways, and signalized intersections. The build facility concept maintains the facility type and capacity. Adjacent to the project location are several businesses, schools, parks, railroad facilities, and drainage facilities that would ultimately be impacted by the proposed project. Some building facilities that may be impacted include:

- East Lake Park
- Marysville Joint Unified School District
- Marysville Youth & Community Center (MyCC)
- Yuba-Sutter Transit
- Dollar Tree
- El Torero Meat Market & Taqueria
- Yanez Custom Wheels and Tires
- The Wright Closet
- WP Towing
- B Street Dental
- Ocean Fish and Chips and Korean Food
- Veterans Memorial Center

Within the project limits, SR 70 consists of 2-12’ lanes with asphalt concrete pavement and 8’ shoulders along most of the traveled way. In addition, there are left turn pockets and two-way left-turn (TWLT) lanes that feed directly into the buildings and side streets. The existing pavement within the project limits is in poor condition and continued maintenance is required due to the high traffic demands that this State Route facilitates.

The existing Marysville Underpass (UP) crosses SR 70 at PM 15.1 providing a narrow roadway width of 13’-6” (10’-6” travelled way with 1’ inside shoulder and 2’ outside shoulder). This underpass has a vertical clearance of 14’-1” southbound (SB) and 13’-10” northbound (NB). This UP has a history of vehicle impacts which

cause temporary road closures for bridge inspection by UPRR. The Binney Junction Underpass crosses SR 70 at PM 15.4 and has a vertical clearance of 14'-8". Both the Marysville and Binney Junction Underpasses are well below the standard vertical clearance required for UPRR facilities (17'-6").

Existing pedestrian facilities consist of 4' to 6' concrete sidewalks on both sides of SR 70 from 14th Street to the Marysville Underpass. The existing southbound sidewalk at this location has a vegetated landscape feature, separating the sidewalk to the adjacent SR 70. At the Marysville Underpass, the southbound pedestrian facility terminates. Pedestrians continuing northbound are required to cross SR 70 using the crosswalk located at 16th Street, then continue northbound through an existing poorly lit pedestrian tunnel adjacent to SR 70. After the Marysville Underpass, there is an existing 4' to 6' sidewalk for northbound (NB) pedestrians from the underpass to the entrance of Marysville High School at 18th Street which enters the high school. The existing sidewalk and curb ramps in the project locations do not meet current ADA Standards.

Other Existing Features

- There is an existing finger levee underneath and to the north of the Binney Junction Underpass, that would be affected by the proposed project.

- In the west levee, there is an existing pump station that would be affected by the proposed project.

- The intersections of SR 70 and 14th Street and SR 70 and18th Street are signalized with designated left turn pockets.

There are two existing railroad service lines within the project area. The Sacramento Subdivision is an east-west facility, which bisects the City of Marysville, intersects with the Valley Subdivision in the north-south direction at Binney Junction. There are also spur tracks between the two subdivisions that would need to be maintained.

Completed and Planned Projects

The project vicinity contains several projects either completed or in the planning stages. These projects, which are listed in Table S.1, are within the vicinity of SR 70.

Table S.1 Projects Near SR 70

Name and Address	Jurisdiction	Description	Status
Adaptive Signal System	Yuba County	Construct and program an adaptive signal system on SR 70 throughout Marysville	Planned
Reconstruct 3 UPRR under crossings to standard clearance and 4 highway travel lanes, provide pedestrian facilities.	Yuba County	Reconstruct three railroad crossings in Marysville at the UPRR Binney Junction over SR 70	Planned
Various Bicycle Improvements throughout Marysville	Yuba County	Add various Class II and Class III bicycles lanes through the city.	Planned
In Yuba County on Route 70 in the City of Marysville. NB/SB auxiliary lanes between Feather River Blvd IC and 3rd Street.	Yuba County	In Yuba County on Route 70 in the City of Marysville. northbound/southbound accelerated lanes between Feather river Blvd IC and 3rd Street	Project Development Stage
SR 70 Passing Lanes - Segments 4 & 5	Yuba County	On SR 70 north Marysville, from Laurellen Road to Butte County line (PM 16.2/25.8): Construct a new continuous passing lane in both directions (CTIPS ID 107-0000-1142)	Completed December 2023
SR 70 Safety Improvements	Yuba County	Near Marysville, from Laurellen Road to Butte County Line - Widen shoulders and improve clear recovery zone (PM 16.2/25.8); add continuous two-way left turn lane (TWLTL) throughout the project; 2 separate slow moving vehicle lanes are planned in each direction. Each one is less than a mile in length (PM 16.2/25.8); overlay with RHMA; replace and extend culverts; install TMS elements, fiber optic system elements, and lighting	Completed December 2023

Name and Address	Jurisdiction	Description	Status
		intersection; and install a classification station.	
SR 70 Simmerly Slough Bridge Replacement	Yuba County	Near Marysville, on SR 70, from 0.1 mile north of Binney Junction Underpass to 0.3 mile north of Laurellen Road	Completed September 2021
Marysville Bicycle and Pedestrian Improvement	Yuba County	Throughout Marysville, with concentration downtown and near schools: Install 26 bicycle racks on public sidewalks, 7.23 miles of bicycle lanes, 5.74 miles of bicycle routes , four high visibility crosswalks, two rectangular rapid flashing beacons, two speed feedback signs, a raised intersections, and 1,193 feet of sidewalk.	Complete before 2025
Marysville Medical Arts District Transportation Development	Yuba County	5th St., from SR 70 to J St., including the Medical Arts District: Rehabilitate road. Second St (2nds St.) from Highway 70 to J St., including the Medical Arts District: Extend and realign.	Programmed
Pavement Rehabilitation Project IV	Yuba County	Pavement Rehabilitation: 25th St. from Sampson to Covillaud, Sicard St. from East 16th St. to East 19th St., Freeman St. from East 18th St. to East 19th St. and East 19th St. from Covillaud to Ramirez. (Project IV)	Planned
Pavement Rehabilitation Project V	Yuba County	Pavement Rehabilitation: Rideout Way from Covillaud to Ramirez St. Greeley from East 19th Street to East 22nd Street and Boulton from East 19th Street to East 22nd St (Project V)	Planned

Name and Address	Jurisdiction	Description	Status
Bridge Preventive Maintenance Program A	Yuba County	Bridge Preventive Maintenance Program (BPMP), various bridges in the County of Yuba.	Planned
Woodruff Ln.	Yuba County	Roadway Safety Improvements: Widen shoulders on each side of road from Hwy. 70 to Hwy 20.	Project Development Only
Rio d'Oro Specific Plan, approximately 11 miles north of the project area between Palermo Road to the south and Ophir Road to the north	Butte County	Residential, commercial, and developed parkland between Palermo Road to the south and Ophir Road to the north	Completion Year 2035
Camp Fire Debris Clean Up	Butte County	Truck trips from ongoing debris removal in Paradise, Bute County	Complete as of 2020
Hard Rock Casino	Yuba County	New casino and hotel development approximately 9 miles south of the project limits, on 40-Mile Road, between SR 70 and SR 65	Completion Year 2019

Purpose and Need

The purpose of the project is to rehabilitate the existing roadway to reduce maintenance expenditures; improve safety, traffic operations, inadequate shoulders and vertical clearances to facilitate goods movement, sight distance, bicycle/pedestrian facilities, comply with the Americans with Disabilities Act (ADA); increase multimodal mobility and operations to meet complete streets and safe routes to school policies.

The project is needed for the following deficiencies and/or issues: reduce maintenance expenditures, fix inadequate shoulders and vertical clearances, traffic safety, operational improvements, improve bicycle and pedestrian facilities, provide ADA compatible facilities, enhance Safe Routes to school facilities, and provide a complete streets facility through implementation of the project.

Proposed Project

The proposed project is located on SR 70 (B Street), in the City of Marysville, from 0.1 miles south of 14th Street (PM 14.8) to just north of Cemetery Road (PM 15.7). The project would apply complete streets features,to include sidewalks on 18th street, striping a two-way protected bicycle path along the southbound lane of SR 70, rehabilitate existing pavement, reduce future traffic congestion, improve traffic operations and safety, and comply with current Caltrans, UPRR, and local agency standards.

The project's proposed improvements are to rehabilitate the existing roadway and two-way left-turn lane (TWLTL) structural sections, construct two traffic storage/auxiliary lanes, standard shoulders, and standard sidewalks. These improvements would conform to 3 lanes at the recently constructed Simmerly Slough Bridge project.

Due to the high number of accidents, the project would replace and lengthen two UPRR structures, the Marysville Underpass and the Binney Junction Underpass. Lowering existing SR 70 under the Marysville Underpass and the Binney Junction Underpass would be required to meet current vertical clearance standards and provide adequate sight distance. With the implementation of standard shoulders and sidewalks, this would provide complete street elements that would allow pedestrians and bicyclist to safely access SR 70 through the project limits. The existing east levee north of Binney Junction to Cemetery Road would be relocated to accommodate the proposed project improvements. The existing pump station would be relocated to the south and an additional pump station would be installed at the Marysville UP to improve drainage. In addition, the intersections of SR 70 and East 24th Street and SR 70 and 16th Street would be signalized, with access to and from 17th Street being removed.

Potential Environmental Consequences and Avoidance, Minimization and/or Mitigation Measures.

Project impacts mayoccur in the following resource areas: community impacts, traffic/transportation, visual/aesthetics, water quality, hazardous waste and materials, air quality, noise and vibration, wetlands and waters of the U.S. and animal species. The project would not contribute to cumulative effects to the resources analyzed. Project effects are discussed fully in Chapter 2, *Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures* and Chapter 3, *California Environmental Quality Act Evaluation*. Table S-3, located at the end of this summary, summarizes the impacts of the project.

Coordination with Other Public Agencies

Notice of Preparation

A Notice of Preparation (NOP) was published on May 26, 2020. It was filed with the State Clearinghouse and sent to the appropriate elected officials, agencies,

and interested parties. A copy of the NOP is included in Appendix D Notice of Preparation.

Permits and Approvals Needed

Table S.2 details the permits, licenses, agreements, and certifications required for project construction.

Table S.2 Permits and Approvals

Agency	Permit/Approval	Status
Central Valley Regional Water Quality Control Board	Section 401 Water Quality Certification	Complete
U.S. Army Corps of Engineers	Section 404 Permit	Application submitted May 22, 2024
U.S. Army Corps of Engineers	Section 408 Levee Restoration; Design Permit	Application submitted March 30, 2023

Table S-3. Comparison f Alternatives –Impacts Summary (CEQA)

Land Use

Impact	No Build	Alternative 1	Alternative 2	Avoidance, Minimization, and/or Mitigation Measures
Consistency with Yuba County General Plan and City of Marysville General Plan	Consistent with policy	No Impact	No Impact	None required
Consistency with Sacramento Area Council of Governments Metropolitan Transportation Plan/Sustainable Communities Strategy	Not consistent	No Impact	No Impact	None required

Farmland

Impact	No Build	Alternative 1	Alternative 2	Avoidance, Minimization, and/or Mitigation Measures
Effects on farmland	No Impact	No farmland was identified within the project limits. No Impact	No farmland was identified within the project limits. No Impact	None required

Growth

Impact	No Build	Alternative 1	Alternative 2	Avoidance, Minimization, and/or Mitigation Measures
Potential to induce growth	No Impact	The project would not induce unplanned growth in the surrounding area. The City of Marysville is a town with limited growth potential due to geographical restrictions like levees and rivers. None of the Build Alternatives would result in substantial changes in accessibility to existing locations and there would be no changes to land use. Project-related growth is not anticipated to occur.	The project would not induce unplanned growth in the surrounding area. The City of Marysville is a town with limited growth potential due to geographical restrictions like levees and rivers. None of the Build Alternatives would result in substantial changes in accessibility to existing locations and there would be no changes to land use. Project-related growth is not anticipated to occur.	None required

Community Impacts

Impact	No Build	Alternative 1	Alternative 2	Avoidance, Minimization, and/or Mitigation Measures
Effects on community character, population, and cohesion	No Impact	The proposed project would not change the character of the study area because it would neither alter the zoning within the area, nor provide new access to areas.	The proposed project would not change the character of the study area because it would neither alter the zoning within the area, nor provide new access to areas.	None required
Effects on relocation and real property acquisition	No Impact	2 residential single-family residences, and 6 nonresidential properties, (including 5 commercial properties, 1 government property); totaling 8 properties would be relocated? However, adequate relocation properties are available.	20 residential properties (including 9 single-family residences, 11 multi-family residences), and 7 nonresidential properties (including 5 commercial properties, 1 government, and 1 non-profit); totaling 28 properties would be relocated? However, adequate relocation properties are available.	Relocation Assistance
Effects on environmental justice populations	No Impact	Environmental justice populations reside in the study area based on available data, however with this Alternative, EJ populations would only be temporarily impacted during construction, as would populations in the general project vicinity.	Environmental justice populations reside in the study area; Alternative 2 would acquire 18 residential properties.	Relocation Assistance

Utilities/Emergency Services

Impact	No Build	Alternative 1	Alternative 2	Avoidance, Minimization, and/or Mitigation Measures
Effects on public and private utilities	No Impact	Temporary service interruptions during relocation of utilities during construction. One pump station would be replaced at Marysville UP and a new pump station installed at Marysville UP. Coordination with utility service providers prior to, during, and after construction to minimize disruption of services to customers in the area.	Temporary service interruptions during relocation of utilities during construction. One pump station would be replaced at Marysville UP and a new pump station installed at Binney Junction UP. Coordination with utility service providers prior to, during, and after construction to minimize disruption of services to customers in the area.	None Required
Effects on police, fire, and emergency service providers	Inadequate horizontal/vertical clearance at two structures would cause ongoing maintenance, time, and resources; intersection operations would still have deficiencies; SR 70 would still be 3 lanes	Emergency services would not be hindered during construction. Operational benefits include improved response times of emergency services. Traffic Management Plan (TMP) is required during construction.	Emergency services would not be hindered during construction. Operational benefits include improved response times of emergency services. Traffic Management Plan (TMP) is required during construction.	None Required

Traffic and Transportation/Pedestrian and Bicycle Facilities

Impact	No Build	Alternative 1	Alternative 2	Avoidance, Minimization, and/or Mitigation Measures
Existing (2020) operations	The SR 70 intersections at 16th Street and 24th Street are currently operating at LOS "F" conditions; the study corridor also has congestion during and outside peak commute periods and experiences significant queuing which spills out onto the additional intersections outside the study area, causing operational impacts.	Existing operational impacts would worsen.	Existing operational impacts would worsen	None required
Opening Year (2026) operations	Intersections at 16th and 24th Street would continue at LOS "F" and significant queuing and operational impacts outside and inside the project study area would still exist.	Study intersections are projected to operate at acceptable LOS conditions and traffic operations would improve with four through lanes and added traffic signals.	Study intersections are projected to operate at acceptable LOS conditions and traffic operations would improve with four through lanes and added traffic signals.	None required
Horizon Year (2043) operations	Intersections at 16th and 24th Street would continue at LOS "F" and significant queuing and operational impacts outside and inside the project study area would still exist.	Study intersections are projected to operate at acceptable LOS conditions and traffic operations would improve with four through lanes and added traffic signals.	Study intersections are projected to operate at acceptable LOS conditions and traffic operations would improve with four through lanes and added traffic signals.	None required

Visual/Aesthetics

Impact	No Build	Alternative 1	Alternative 2	Avoidance, Minimization, and/or Mitigation Measures
Effects on scenic resources, visual character, and visual quality	No Impact	Newly Shifted RR Alignment: Moderate impacts to visual character and quality, most impacts would be changes to right of way with commercial business acquisition. No scenic resources affected. Although tracks would be shifted to a new permanent alignment, visual impacts would be minimal as the visual setting would remain the same. Aesthetic features and street trees applied as project features.	Newly Shifted RR Alignment: Moderate impacts to visual character and quality, most impacts would be changes to right of way with commercial business acquisition and residential property acquisitions. No scenic resources affected. Although tracks would be shifted to a new permanent alignment, visual impacts would be minimal as the visual setting would remain the same. Aesthetic features and street trees applied as project features	None Required

Cultural Resources

Impact	No Build Significance before Mitigation	Alt. 1 Significance before Mitigation	Alt. 2 Significance before Mitigation	Mitigation Measures	No Build	Alt. 1 Significance after Mitigation	Alt. 2 Significance after Mitigation
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5	NA	Less Than Significant	Less Than Significant	NA	NA	NA	NA
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5	NA	Effects are still undetermined	Effects are still undetermined	NA	NA	Undetermined	Undetermined
c) Disturb any human remains, including those interred outside of dedicated cemeteries	NA	NA	NA	NA	NA	NA	NA

Hydrology and Floodplain

Impact	No Build	Alternative 1	Alternative 2	Avoidance, Minimization, and/or Mitigation Measures
Impact drainage, and floodplain encroachment	No Impact	New impervious surfaces would increase post-project compared to pre-project; New drainage features would comply with standards. No significant floodplain encroachment. Marysville Finger Levee would be shifted to accommodate roadway widening. SWPP and BMPs applied.	New impervious surfaces would increase post-project compared to pre-project; New drainage features would comply with standards. No significant floodplain encroachment. Marysville Finger Levee would be shifted to accommodate roadway widening. SWPPP and BMPs applied.	None Required

Water Quality

Impact	No Build	Alternative 1	Alternative 2	Avoidance, Minimization, and/or Mitigation Measures
Increased runoff from added impervious surfaces	No Impact	Addition of new impervious surfaces	Addition of new impervious surfaces	The proposed project would be designed in accordance with NPDES Permit requirements
Water quality impacts during construction and operation	No Impact	Coordination with the local municipality, responsible for implementing NPDES/MS4 Phase II urban storm water management, would ensure regional permit and programmatic compliance. NPDES Construction General Permit Coverage and implementation of the SWPPP; BMPs, Caltrans SWMP, applicable guidelines and requirements in the 2018 Caltrans Standard Specifications (CSS), and stormwater guidance measures applied.	Coordination with the local municipality, responsible for implementing NPDES/MS4 Phase II urban storm water management, would ensure regional permit and programmatic compliance. NPDES Construction General Permit Coverage and implementation of the SWPPP; BMPs, Caltrans SWMP, applicable guidelines and requirements in the 2018 Caltrans Standard Specifications (CSS), and stormwater guidance measures applied.	Construction General Permit (CGP) required and standard specifications.

Geology/Soils/Seismic/Topography

Impact	No Build	Alternative 1	Alternative 2	Avoidance, Minimization, and/or Mitigation Measures
Risk of seismic hazard	No Impact	Low risk of ground-shaking or failure	Low risk of ground-shaking or failure	None Required
Risk of landslides	No Impact	Low risk for landslides	Low risk for landslides	None Required

Paleontology

Impact	No Build	Alternative 1	Alternative 2	Avoidance, Minimization, and/or Mitigation Measures
Paleontological resources	No Impact	No Impact	No Impact	None required

Hazardous Waste/Materials

Impact	No Build	Alternative 1	Alternative 2	Avoidance, Mitigation, and/or Mitigation Measures
Exposure to hazardous materials to humans or the environment	No Impact	Potential exposure of humans and the environment to hazardous conditions from accidental release of hazardous materials during construction; Potential exposure of humans to lead chromate or other harmful chemicals from construction activities; Risk of encountering contaminated soil and exposure to hazardous chemicals from past pesticide/herbicide use during ground-disturbing activities	Potential exposure of humans and the environment to hazardous conditions from accidental release of hazardous materials during construction; Potential exposure of humans to lead chromate or other harmful chemicals from construction activities; Risk of encountering contaminated soil and exposure to hazardous chemicals from past pesticide/herbicide use during ground-disturbing activities	None Required
Cortese Site	No Impact	There is one property within the project limits which is on the Cortese List site; it is a “case closed” site. Measures would be taken to ensure compliance with federal, state and local laws in handling this property.	There is one property within the project limits which is on the Cortese List site; it is a case closed site. Measures would be taken to ensure compliance with federal, state and local laws in handling this property.	None Required

Air Quality

Impact	No Build	Alternative 1	Alternative 2	Avoidance, Mitigation, and/or Mitigation Measures
Project-level conformity CO	No Impact	The project does not cause or contribute to any new localized CO, PM2.5, and/or PM10 violations, or delay timely attainment of any (National Ambient Air Quality) NAAQS or any required interim emission reductions or other milestones during the timeframe of the transportation plan.	The project does not cause or contribute to any new localized CO, PM2.5, 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.	None required
Project-level conformity PM2.5	No Impact	The project does not cause or contribute to any new localized CO, PM2.5, 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.	The project does not cause or contribute to any new localized CO, PM2.5, 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.	None required
Roadway Vehicle Emissions/Criteria Pollutant Emissions	No Impact	Future scenario emissions (Build and No-Build) were compared with Baseline (Existing Conditions) emissions. The analysis demonstrates there would be no statistical changes between the build alternatives and the no-build alternative during opening and design years, and the emissions of NOx for the future Build years (2026 and 2046) would be lower than those for the existing year (2016). Overall emissions are not anticipated to be substantial with the proposed project. Therefore, operational air quality impacts by NOx would not be substantial. *For the proposed project, widening to four travel lanes reduces fuel consumption since less delay would occur at signalized intersections. The Build Alternative would have less GHG emissions and the small VMT increase would be offset by the reduction in peak hour GHG emissions due to improved intersection operations.*	Future scenario emissions (Build and No-Build) were compared with Baseline (Existing Conditions) emissions. The analysis demonstrates there would be no statistical changes between the build alternatives and the no-build alternative during opening and design years, and the emissions of NOx for the future Build years (2026 and 2046) would be lower than those for the existing year (2016). Overall emissions are not anticipated to be substantial with the proposed project. Therefore, operational air quality impacts by NOx would not be substantial. *For the proposed project, widening to four travel lanes reduces fuel consumption since less delay would occur at signalized intersections. The Build Alternative would have less GHG emissions and the small VMT increase would be offset by the reduction in peak hour GHG emissions due to improved intersection operations.*	None required
Regional Conformity	No Impact	The design concept and scope of the proposed project is consistent with the project description in	The design concept and scope of the proposed project is consistent with the project description in	NA

		the 2019-22 MTIP, and the “open to traffic” assumptions of the SACOG regional emissions analysis.	the 2019-22 MTIP, and the “open to traffic” assumptions of the SACOG regional emissions analysis.	

Noise

Impact	No Build	Alternative 1	Alternative 2	Avoidance, Minimization, and/or Mitigation Measures
Traffic noise	No Impact	Under the design year, traffic noise impacts are not predicted to occur because the predicted noise levels in the design-year increase at 7dBA, which is below the 12dBA threshold increase criteria set by the Noise Abatement Criteria (NAC.) *NAC is the overall reasonableness that is determined by the noise reduction design goal, the cost of noise abatement and the viewpoints of benefited receptors*. However, some properties qualify as Category B and C regarding outdoor use and would have an impact in traffic noise. Those properties were evaluated for abatement measures however those were considered infeasible.	Under the design year, traffic noise impacts are not predicted to occur because the predicted noise levels in the design-year increase at 7dBA, which is below the 12dBA threshold increase criteria set by NAC. However, some properties qualify as Category B and C regarding outdoor use and would have an impact in traffic noise. Those properties were evaluated for abatement measures however those were considered infeasible.	None Required
Construction noise and vibration	No Impact	Temporary increase in noise levels due to operation of construction equipment, construction activities, and implementation of detours; Construction noise would be intermittent and overshadowed by local traffic noise. Construction vibration noise would also affect the build alternative. Measures for potential noise during construction would be implemented to reduce noise during the nighttime.	Temporary increase in noise levels due to operation of construction equipment, construction activities, and implementation of detours; Construction noise would be intermittent and overshadowed by local traffic noise. Construction vibration noise would also affect the build alternative. Measures for potential noise during construction would be implemented to reduce noise during the nighttime.	None Required
Train Noise and Vibration	No Impact	There are no permanent train vibration noise impacts as this alternative acquires one isolated residence.	For train noise and vibration, only pertaining to certain sensitive receptors within the project area, impacts are expected as the future noise levels would approach or exceed the noise threshold as defined by 23 CFR 772.	None Required

Energy

Impact	*No Build*	*Alternative 1*	*Alternative 2*	*Avoidance Minimization and/or Mitigation Measures*
Energy demands	No Impact	Temporary energy consumption during construction for use of construction equipment and on road vehicles. Indirect energy use such as fuel consumption by vehicles utilizing the roadway would occur. However, the proposed project is not anticipated to substantially increase vehicle traffic.	Temporary energy consumption during construction for use of construction equipment and on road vehicles. Indirect energy use such as fuel consumption by vehicles utilizing the roadway would occur. However, the proposed project is not anticipated to substantially increase vehicle traffic.	None required

Biological Environment - Wetland and Other Waters

Impact	No Build	Alternative 1	Alternative 2	Avoidance, Mitigation, and/or Mitigation Measures
Effects on Wetlands and Other Waters	No Impact	The project would permanently impact approximately 0.523 acres of ephemeral wetlands during the relocation of the Marysville ring levee finger levee. The impacted wetlands are isolated, currently degraded, and void of any special status and/or listed species.	The project would permanently impact approximately 0.523 acres of ephemeral wetlands during the relocation of the Marysville ring levee finger levee. The impacted wetlands are isolated, currently degraded, and void of any special status and/or listed species.	None Required

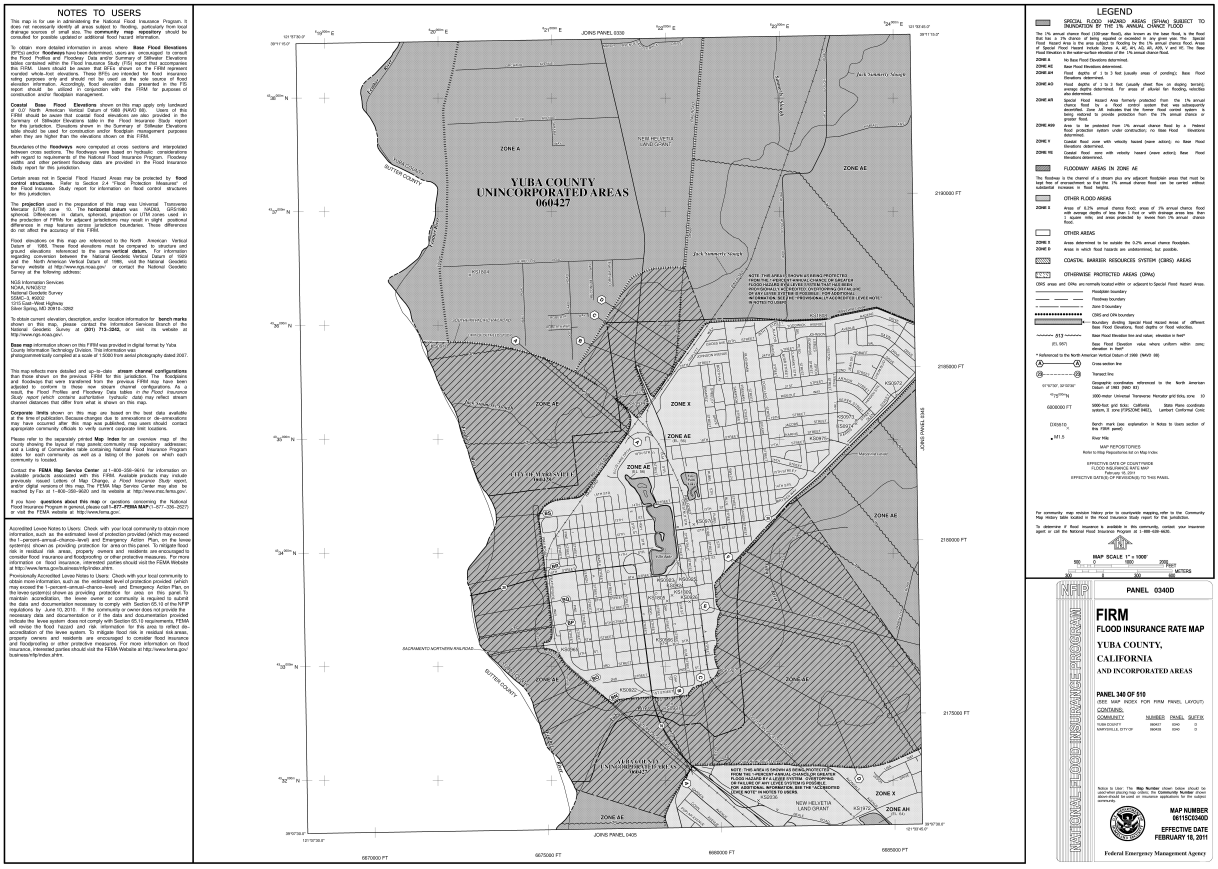
Animal Species

Impact	Build	Alternative 1	Alternative 2	Avoidance, Mitigation, and/or Mitigation Measures
Effects on Migratory Birds	No Impact	The project would be removing a minimal number of trees; The Migratory Bird Treaty Act (MBTA) protects those species by ensuing	The project would be removing a minimal number of trees; The Migratory Bird Treaty Act (MBTA) protects those	Ensure trees are removed during the non-nesting season and pre-construction bird surveys are performed.

		compliance with tree removal and compliance.	species by ensuing compliance with tree removal and compliance.	

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Chapter 1 Proposed Project

1.1 Introduction

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

Caltrans proposes to rehabilitate State Route (SR) 70 between post mile (PM) 14.8 to PM 15.7 in Yuba County, California. The project limits would extend from approximately 0.1 mile south of 14th Street to just north of Cemetery Road in the City of Marysville. The project would rehabilitate the existing pavement and provide complete streets to reduce future traffic congestion, improve operations and safety, and comply with current Caltrans and Union Pacific Railroad (UPRR) standards.

The existing east levee north of Binney Junction UP to Cemetery Road would be relocated to the east to accommodate the proposed project improvements. The project is estimated to cost approximately $151,881,000.00. The project would be constructed in six separate stages and is anticipated to be completed in approximately three years. Construction is tentatively scheduled to begin in the summer of 2025 and be completed in the Fall of 2027.

DRAFT

1.2 Purpose and Need

1.1.1 Purpose

The purpose of the project is to rehabilitate the existing roadway to reduce maintenance expenditures, improve safety, traffic operations, provide adequate shoulders and vertical clearances to facilitate goods movement, improve sight distance, bicycle/pedestrian facilities, and comply with ADA standards. The project would increase multimodal mobility and operations to meet complete streets and safe routes to school policies.

1.1.2 Need

The project is needed for the following deficiencies and/or issues: reduce maintenance expenditures, fix inadequate shoulders and vertical clearances, traffic safety, operational improvements, improve bicycle and pedestrian facilities, provide ADA compatible facilities, enhance safe routes to school facilities, and provide a complete streets facility through implementation of the project.

The existing SR 70 is projected to operate below acceptable Levels of Service (LOS) with queuing expected to block adjacent intersections. Vehicle delay and operating speeds are projected to be below the acceptable standards. This has become apparent over time and has only been amplified due to the recent relief efforts for the Oroville Dam Repair and Paradise Fire Relief. The existing underpasses do not meet current vertical clearance standards, this has led to a high number of closures due to truck traffic impacts to the existing structures. Due to the large volume of freight and goods movements through SR 70, the existing roadway structural section has also experienced drastic wear and tear and is in poor condition that requires continuous high maintenance efforts.

Currently, sections of the roadway do not have sidewalks and there are no existing established bicycle facilities, requiring bicycle users to share the State Route with vehicles, which includes high volumes of truck traffic. In addition, many of the current ADA facilities do not meet current standards and has inadequate accessibility due to the lack of contiguous pedestrian facilities. Rehabilitation of SR 70 would ensure that the State Route would be brought up to current design standards, which would help mitigate the vehicular impacts to the underpasses, as well as provide safe and efficient travel for various modes of transportation, including vehicles, bicyclist, and pedestrians.

1.3 Project Description

This section describes the proposed project and the project alternatives developed to meet the purpose and need of the project, while avoiding or minimizing environmental impacts. The alternatives are Alternative 1 and Alternative 2, and the No-Build Alternative.

1.1.3 Project Description

The California Department of Transportation (Caltrans), in cooperation with Yuba County, City of Marysville, and Union Pacific Railroad (UPRR), proposes to rehabilitate SR 70 in the City of Marysville, from 0.1 mile south of 14th Street (PM 14.8) to just north of Cemetery Road (PM 15.7). The project will provide complete street features, rehabilitate the existing pavement, reduce future traffic congestion, improve traffic operations and safety, and comply with current Caltrans, UPRR, and local agency standards.

The project proposes to provide two travel lanes, two auxiliary lanes, a continuous TWLTL and shoulders from the beginning of the project to Cemetery Road. The project will also lower the profile of existing SR 70 under the two new RR structures to meet current vertical clearance standards and provide adequate sight distance. A portion of East 24th street will be realigned, and Chestnut Street overlaid to accommodate project improvements.

The intersections of SR 70 and East 24th Street and SR 70 and 16th Street will be signalized, and the existing the signals at SR 70 and 14th street and SR 70 and18th street will be upgraded. Vehicle access from 17th Street will also be removed, but pedestrian access will be maintained. Complete street elements for this alternative include the addition of sidewalks to both sides of East 24th Street and to the west side of Chestnut Street.

Sidewalks will be rebuilt/added to both sides of SR 70 to 24th street, a sidewalk continuing along the west side of SR 70 connecting to the Simmerly Slough project will be constructed. The sidewalks on 18th street will be rebuilt. A two-way protected bicycle path along the southbound lane of SR70, between 16th street and the end of the project, and along the westbound side of E 24th street connecting the Ring Levee bike and pedestrian path to SR 70 will be striped. Bus Stop Locations within the project limits will be relocated to increase passenger safety and accessibility. All curb ramps and sidewalks will be constructed to meet current ADA standards.

Stage Construction

The proposed project is anticipated to be constructed over 3 construction seasons and consists of 5 stages to construct the project.

Lane closure

- Because of high traffic volumes within the project limit, work requiring traffic control on mainlines and shoulders will be restricted from late evening to early morning hours only and will be performed in accordance with the Standard Plans.
- This project is not a stand-alone project. For traffic handling purposes, coordination with projects within or nearby will be required to avoid conflicts during construction and to minimize any interference with the various projects.
- All widening work performed behind K-rail and gawk screens will be allowed at any time; keeping all lanes open in the direction of traffic at all times.
- The use of K-rail is recommended to separate the work zone from the public traffic.
- A full closure on SR 70 may be allowed during the late evening to early morning hours for bridge falsework only during the replacement operations of Marysville underpass and the Binney Junction Railroad Undercrossing. Detour plans will be required for any full closures.
- Falsework must be fixed in place prior to allowing live traffic to travel under the structure falsework.
- One-way traffic control (reversing control) using flaggers will be allowed on the 2-Lane, 2-Way section in accordance with Standard Plans sheet T13 during nighttime hours, but may be restricted during daytime peak hours and weekends. Advance flaggers are recommended during one-way traffic control (reversing control) in areas where there is inadequate approaching sight distance.
- Coordinating with City of Marysville and the operation of the existing Union Pacific Railroad (RR)within the project limits will be required if construction activities impact both facilities.

- Access to driveways and cross streets must be maintained during construction in accordance with traffic control standard plans or traffic handling plans.
- When closures occur within 200 feet of an intersection, flaggers will be used to control all legs of the intersection.
- Bicycle traffic must be maintained during construction at the locations with existing bikeways.
- Additional signs may be required to direct bicycle traffic when bikeways are closed for contract work.
- When construction operations are not actively in progress, all lanes shall remain open at all times.
- No lane closures, shoulder closures, or other traffic restrictions will be allowed on Special Days, designated legal holidays and the day preceding designated legal holidays; and when construction operations are not actively in progress.
- Work at this location may require assistance of COZEEP, but full-time presence is not anticipated.
- Portable changeable message signs (PCMS) will be required in direction of traffic during construction for each lane, shoulder and bridge closures.

Alternate Route Planning

- Due to high truck volumes on SR 70, the project will encourage truck drivers to use alternate routes during the duration of the project's construction. This will increase passenger vehicle capacity through the work zone.
- Temporary traffic signals will be coordinated with existing signals to maintain traffic flow through and near the work zone.
- Existing bus stop areas within the work zone will be maintained or moved to locations coordinated with Yuba Sutter Transit.

- During certain stages of construction certain left turn movements will be eliminated at intersections to increase roadway capacity, reduce potential congestion and delays, and improve safety.

Lane Closure Charts

Lane Closure Charts (LCC) identify the number of lanes that must be open for traffic each hour of the day to minimize delay when work activities are being conducted. The charts restrict work hours so that traffic is not affected during periods of peak travel demand and congestion. Work is typically performed during off-peak periods.

Chart No. K1
Conventional Highway Lane Requirements

County: Yub	Route/Direction: 70/EB & WB	Post Mile: 14.8/15.7

Closure limits: PM 14.8/15.7

Hour	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mon–Thu	R	R	R	R	R																	R	R	R	R
Fri	R	R	R	R	R																			R	R
Sat	R	R	R	R	R	R	R																	R	R
Sun	R	R	R	R	R	R	R															R	R	R	R

Legend:

R	Provide at least 1 through traffic lane not less than 11 feet in width for use by both directions of travel. (Reversing Control)
	Work is allowed within the highway where a shoulder or lane closure is not required.

Chart No. K2
Conventional Highway Lane Requirements

County: Yub

Closure limits: Chestnut St.
17th St
18th St.
24th St

Hour	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mon–Thu	R	R	R	R	R																	R	R	R	R
Fri	R	R	R	R	R																		R	R	R
Sat	R	R	R	R	R	R	R																R	R	R
Sun	R	R	R	R	R	R	R															R	R	R	R

Legend:

R — Provide at least 1 through traffic lane not less than 11 feet in width for use by both directions of travel.
(Reversing Control)

Work is allowed within the highway where a shoulder or lane closure is not required.

Demand Management for Pedestrians and Bicyclists

- Shuttle buses will be provided during certain stages of construction for pedestrians and bicyclists through the work zone, where they have existing access if the contractor cannot provide alternate access through the work zone.

- The proposed project will improve bicycles facilities by striping a two-way protected bicycle path beside the southbound SR 70 auxiliary lane from 16th Street to Cemetery Road.

Existing Pedestrian Facility

The existing pedestrian facilities consist of 4 foot to 6 foot concrete sidewalks on both sides of SR 70 from 14th Street to 17th Street. Some of the existing sidewalk at this location has a vegetated landscape feature, separating the sidewalk from SR 70. The remaining sidewalk abuts the existing curb and gutter. At 17th Street the southbound pedestrian facility terminates. The northbound pedestrian facility progresses through an existing, poorly lit pedestrian tunnel (124 feet in length) near SR 70. Beyond the pedestrian tunnel there is an existing 4’ to 6’ sidewalk for northbound pedestrian traffic connecting to the entrance of Marysville High School at 18th Street. There are 4’ to 6’ sidewalks on 18th Street providing access to the high school. North of 18th Street, the sidewalk along SR 70 ends and the existing sidewalk departs from SR 70 and connects to the Marysville Joint Unified School District office buildings.

The existing sidewalk and curb ramps in the project limits do not meet current ADA Standards.

The SR 70 and14th Street intersection has crosswalks on the northbound, southbound, and eastbound legs. The SR 70 and16th Street intersection has an uncontrolled crosswalk on the westbound leg with rapid flashing beacons to alert motorists. The SR 70 and 18th Street intersection has a crosswalk on the westbound leg that connects to Allen Scott Youth and Community center.

Other Existing Features

SR 70 passes under the Binney Junction UP and through the Marysville Ring Levee. As the road continues north it climbs between the west and east finger levees to cross over the levee system. There is an existing pump station built into the West Finger Levee with discharge pipes crossing the levee prism that will be relocated by the project.

There are two existing railroad service lines within the project area. The Sacramento Subdivision line runs east-west, and the Valley Subdivision line runs north-south. Both lines bisect portions of the City of Marysville. These lines intersect at Binney Junction which is about a tenth of a mile west of the Binney Junction UP.

There are 3 floodgates within the project footprint located on Track 684, the Valley Subdivision, and the Sacramento Subdivision tracks. The existing railroad grades are lower than the Marysville Ring Levee and these floodgate structures can be closed to exclude waters from Marysville during flood events.

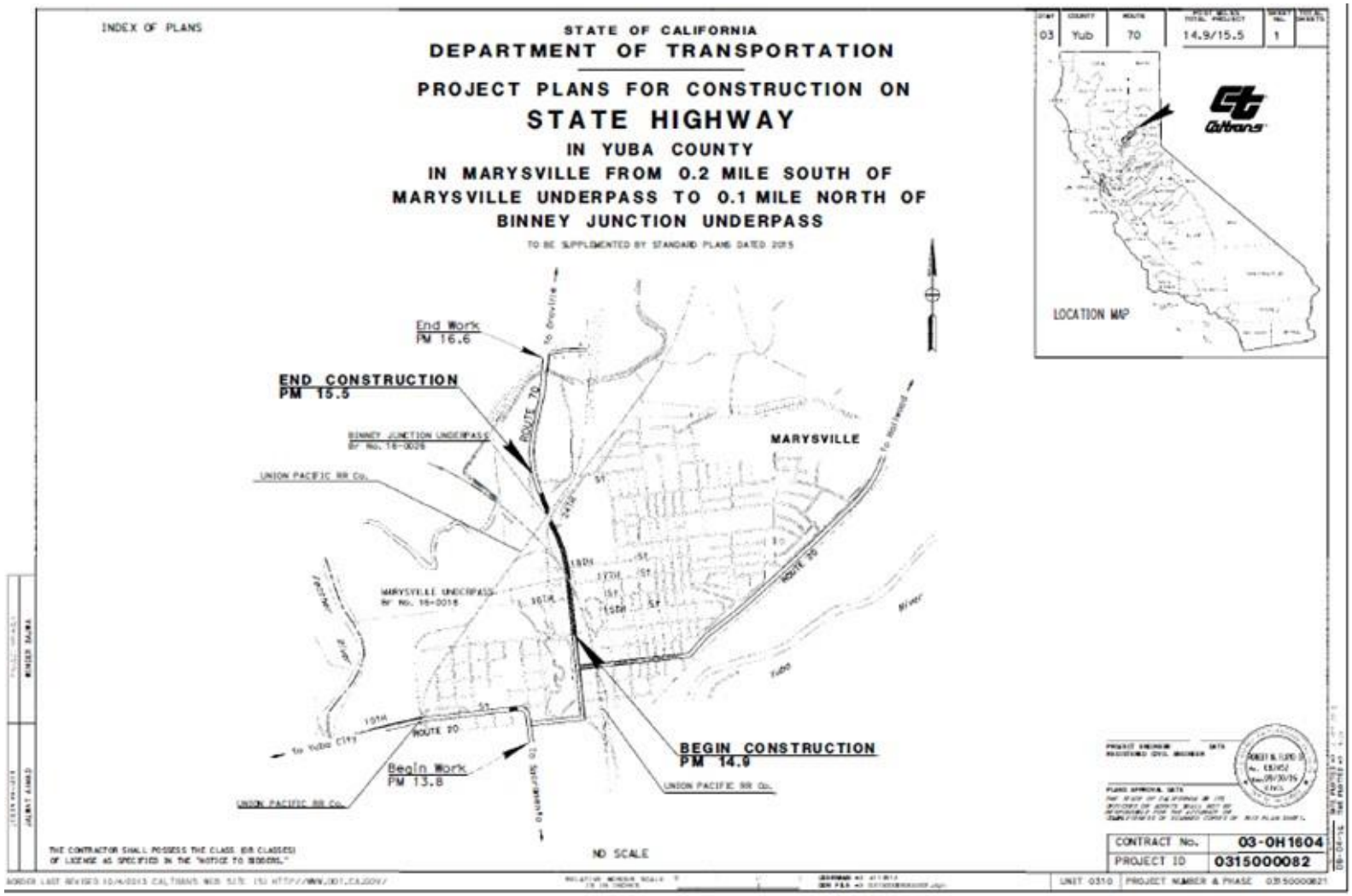
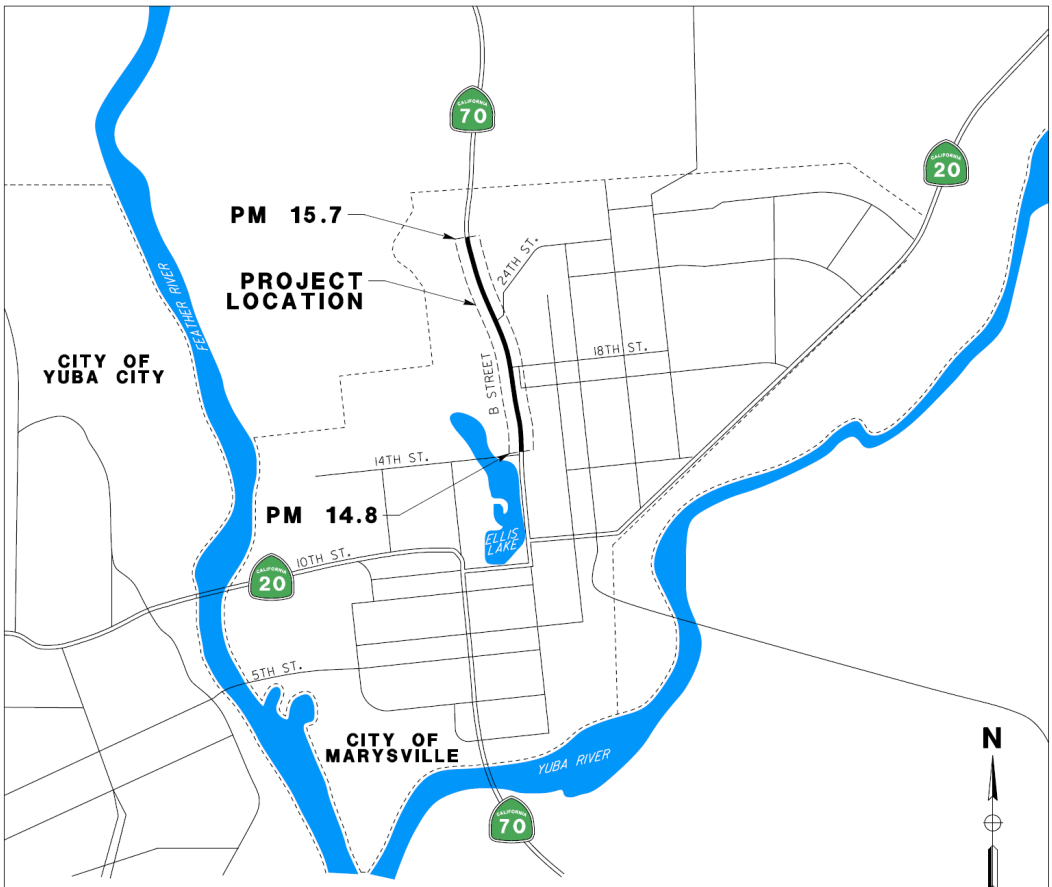


Figure 1. Location Map

VICINITY MAP



SR 70 BINNEY JUNCTION ROADWAY REHABILITATION AND COMPLETE STREETS PROJECT
03-YUB-70
EA 03-0H160
EFIS 0315000082

1.4 Project Alternatives

There are three alternatives under consideration for this project: Alternative 1 Alternative 2, and the No-Build Alternative. The build alternatives have design variations: Alternative 1 and 2 include permanent realignment of the railroad lines over new realigned structures; and

Build Alternatives

This project contains several standardized project measures that are used on most, if not all, Caltrans projects and were not developed in response to any specific environmental impact resulting from the proposed project. These measures are addressed in more detail in the Environmental Consequences sections found in Chapter 2. Build Alternatives are shown in Figures 1.3 and 1.4.

Figure 1.3 – Alternative 1

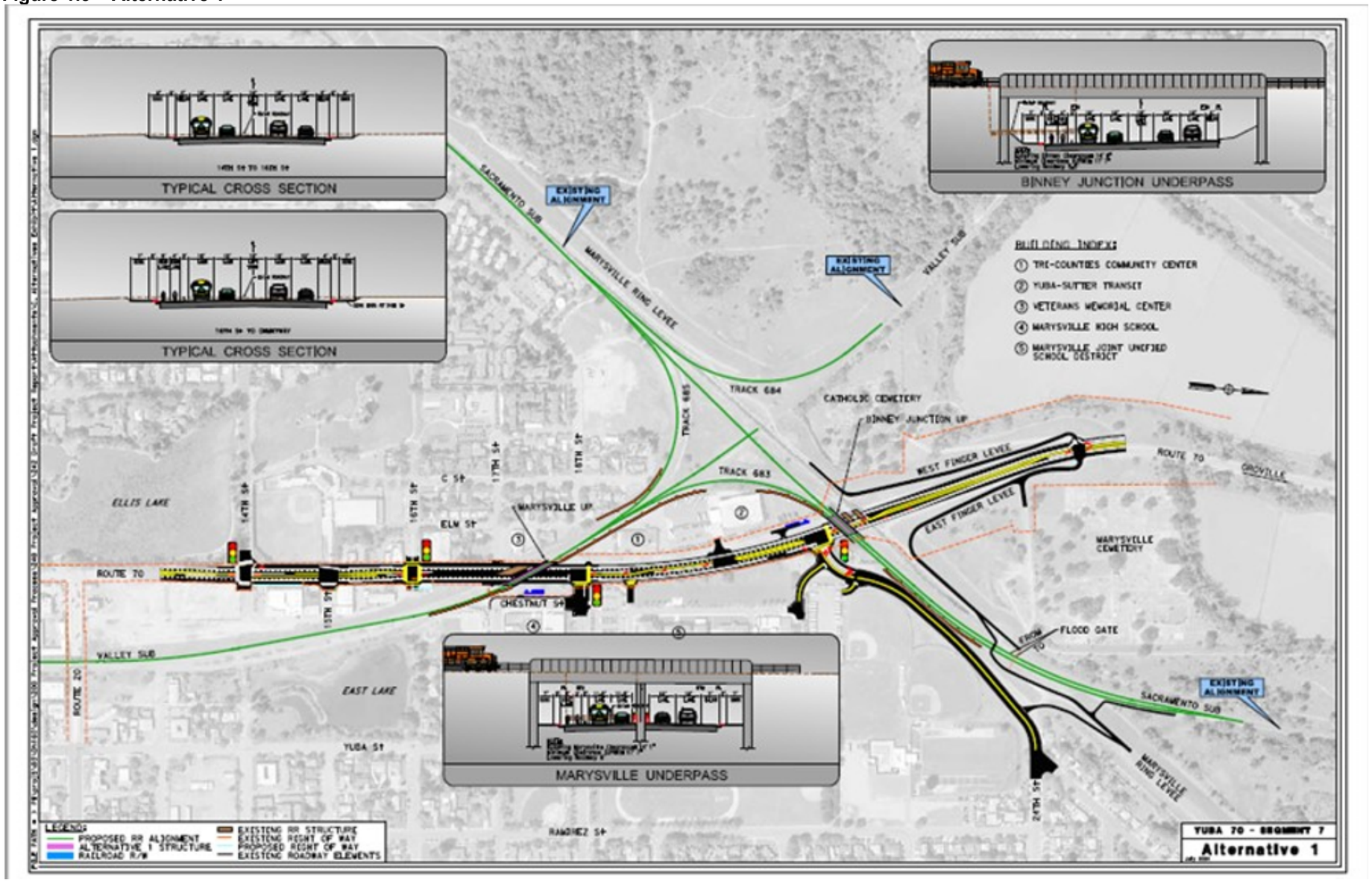
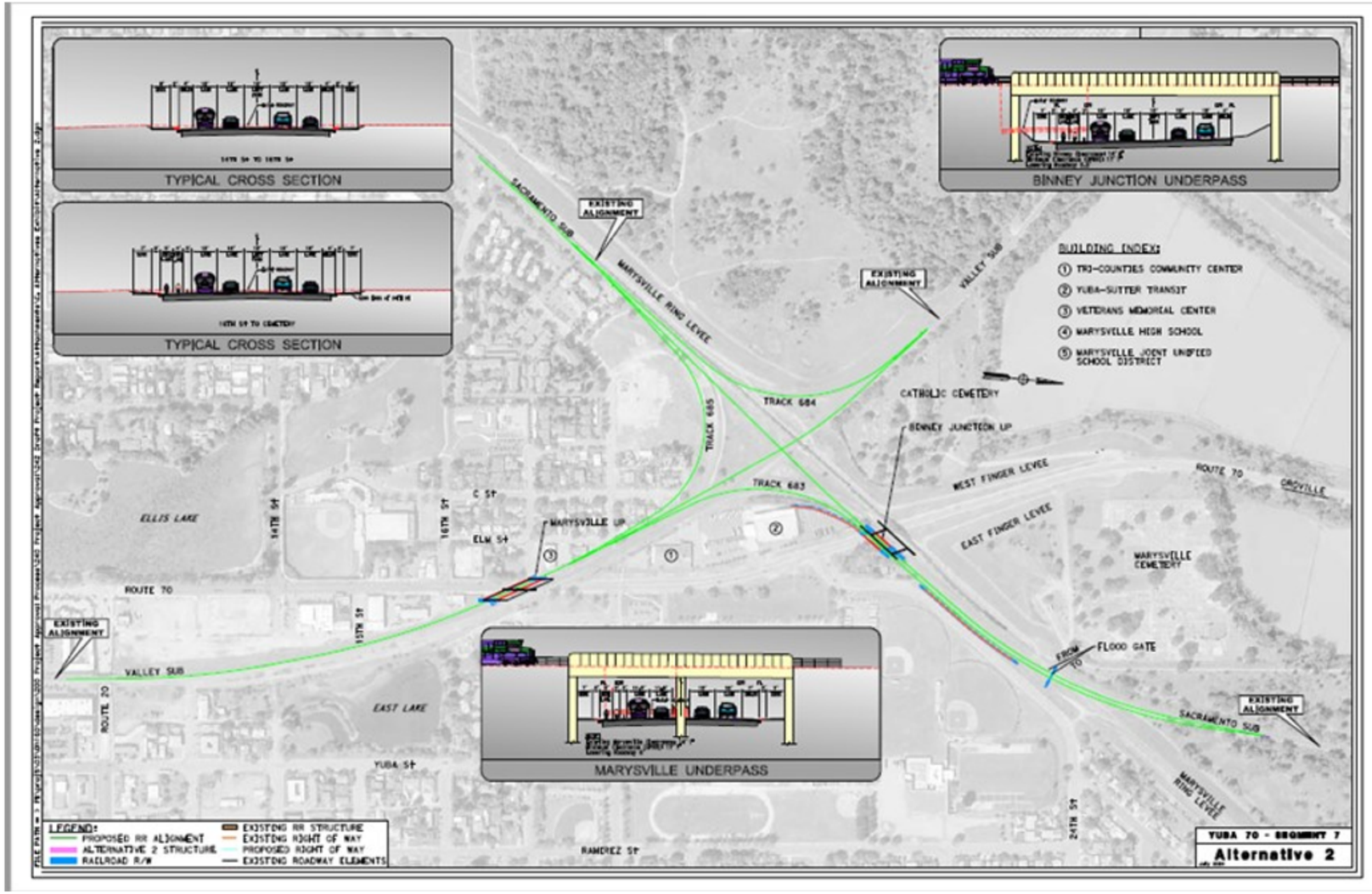


Figure 1.4 – Alternative 2



Common Design Features of the Build Alternatives

Roadway Features

the project proposes to provide two travel lanes, two auxiliary lanes, a continuous TWLTL and shoulders from the beginning of the project to Cemetery Road. The project will also lower the profile of existing SR 70 under the two new railroad structures to meet current vertical clearance standards and provide adequate sight distance. A portion of East 24th Street will be realigned, and Chestnut Street will be overlaid to accommodate project improvements.

The intersections of SR 70 and East 24th Street and SR 70 and 16th Street will be signalized, and the existing signals at SR 70 and 14th Street and SR 70 and 8th Street will be upgraded. The signal at SR 70 and East 24th Street allows for safer access to and from Marysville High School for vehicle and school buses, as well as creates a safer pedestrian/bicycle corridor for the public use.. The signal at SR 70 and 16th Street would allow for safer access for students going to and from Marysville High School while creating a safer pedestrian/bicycle corridor for public use. This will also allow surrounding businesses and motorists to enter and exit SR 70 safely.

Lengthening the Marysville Underpass to accommodate the improvements on SR 70 eliminates the need for a pedestrian tunnel, so the existing pedestrian tunnel for northbound pedestrians will be removed. Vehicle access from 17th Street will also be removed, but pedestrian access will be maintained.

Complete street elements include:

- Sidewalks added to both sides of East 24th Street and to the west side of Chestnut Street.
- Sidewalks rebuilt/added to both sides of SR 70 to 24th Street.
- A sidewalk continuing along the west side of SR 70 connecting to the Simmerly Slough project.
- Rebuilding the sidewalks on 18th Street.
- Striping a two-way protected bicycle path along the southbound lane of SR 70 between 16th Street and the end of the project, and along the westbound side of East 24th street connecting the Ring Levee bike/ped path to SR 70.
- Coordination with Yuba Sutter Transit to relocate bus stop locations within the project limits to increase passenger safety and accessibility.
- Construction of all curb ramps and sidewalks to Americans Disability Act standards.

- Red truncated domes included with all curb ramps within the scope of the project to match previous City of Marysville improvements.

Structures

The project proposes to replace three railroad bridges with two structures, the Marysville Underpass (UP) to the north of the existing structure and the Binney Junction UP to the south of the existing (2) structures. These structures will be constructed offline of the existing track alignments to minimize impacts to UPRR operations during construction. The new structures will meet current Caltrans Highway Design Manual (HDM) and UPRR vertical clearance standards. One of UPRR design constraints was to maintain the current track grades within the project limits. To accomplish this, the SR 70 vertical profile will be lowered approximately 6 feet at the Marysville UP and approximately 5.5 feet at the Binney Junction UP. The realigned Valley Subdivision track will be carried by the new Marysville UP as it is now. The new Binney Junction UP will carry both the realigned Track 683 and the realigned Sacramento Subdivision Track.

Fourteen retaining walls are proposed for the project. Six of these walls are associated with either the railroad track (two walls) or the railroad structures (four walls) and the remaining walls eight walls are associated with roadway work.

Retaining walls one and two are associated with abutment 1 of the Marysville under pass. Retaining wall one would reduce impacts to the Earle Yorton Little League Field near the intersection of 17th Street and Chestnut Street. Retaining wall two would hold the railroad fill away from the northbound roadway and sidewalk south to the underpass. Retaining wall three would tie into the Marysville UP on the north side of abutment 3 and would reduce impacts to the Allen Scott Youth Center. Retaining wall four is designed to reduce impacts to the intersection of C St. and Clement Way. Retaining wall five ties into abutment 1 of the Binney Junction UP and reduces impacts to the Yuba Sutter Transit facility. Retaining wall six minimizes the embankment footprint on East 24th Street. The remaining walls are related to roadway construction. Retaining walls seven to 14 are designed to minimize the project footprint and reduce impacts to adjacent property owners.

Railroad Track

This alternative will construct the new Marysville Underpass structure to the north of the existing structures and the new Binney Junction Underpass to the south of the existing structures. This will allow the existing tracks to be used in their current configuration while constructing the new underpass structures. New track will be constructed to align with the new bridges and tied into the existing rail lines after the bridges are complete.

Levee

This alternative will realign a portion of the East Finger Levee to accommodate work on SR 70. It will also realign portions of the Marysville Ring Levee to accommodate the new track alignment and relocated floodgate structure. Levee work will comply with Title 23 standards for levee construction. Cutoff walls will be installed in portions of the Marysville Ring Levee as well as portions of the east and west Finger Levees near the Binney Junction UP to address under seepage in this portion of the levee system. The existing levee maintenance road crossing UPRR tracks near the floodgate will be reconstructed to accommodate the new track alignment and the existing paved road on the levee crown will be maintained.

Drainage Features

State Route 70 roadway runoff within the project limits is collected via streets and gutters and then directed to either Caltrans or City of Marysville storm drain systems. From the beginning of the project to near 16th Street roadway runoff drains to 14th Street and into a City of Marysville storm drain system. From 16th Street to the entrance of the Marysville Joint Unified School District offices (north of 18th Street) as well as portions of 18th Street and Chestnut Street roadway runoff drains to the Marysville Pump Plant. The remainder of the SR 70 and a portion of East 24th Street runoff is collected into the Binney Junction Pump Plant. The rest of the 24th Street drainage is collected into a City of Marysville storm drain system.

The proposed project would perpetuate historical drainage patterns to the maximum extent practical. The flows at 14th Street into the City of Marysville storm drain system will remain. Lowering the roadway profile at the Maryville UP means the existing gravity system that discharges to East Lake will not function. The project will reconstruct the Marysville Pump Plant to maintain its historical discharge rate to East Lake through an existing storm drain system. Excess volume will be stored in a newly constructed? underground sump structure. The Binney Junction Pump Plant will maintain its historical discharge rate to a ditch north of the Catholic Cemetery that eventually discharges to Simmerly Slough. Excess volume would be stored in a newly constructed? underground sump structure.

1.1.4 Unique Features of Build Alternatives

We need to speak to R/W acquisition, including TCE’s and permanent acquisition from each alternative. We can also illustrate in table based on cost estimate maps or appraisal maps.

Alternative 1

Alternative 2

Temporary and permanent right of way acquisition would be required from 18 parcels.

The proposed project would perpetuate historical drainage patterns to the maximum extent practical. The flows at 14th street into the City of Marysville storm drain system will remain. Lowering the roadway profile at the Maryville UP means the existing gravity system that discharges to East Lake will not function. The project will construct a Marysville PP to maintain its historical discharge rate to East Lake through an existing storm drain system. Excess volume will be stored in an underground sump structure. The Binney Junction PP will maintain its historical discharge rate to a ditch north of the Catholic Cemetery that eventually discharges to Simmerly Slough. Again, excess volume would be stored in an underground sump structure.

Transportation Demand Management (TDM) and Transportation System Management (TSM) Alternatives

Although Transportation System Management measures alone could not satisfy the purpose and need of the project, the following transportation System Management measures have been incorporated into the project:

- Pedestrian and bicycle enhancements.
- Americans Disability Act upgrades.
- Complete streets elements.
- Increased multi-modal connectivity with new signalized intersections.
- Safe Routes to School enhancements.

Reversible Lanes / Navigable Waters

There are no reversable lanes in this project and the project in not within or near access to navigable waters.

No Build Alternative

The No-Build Alternative for this project means that there would be no project, hence a “no build” alternative. If there were no project implementation, that action of no-build would not meet the purpose and need of the proposed project. The following are needs that would not be implemented with a no-build alternative.

- Continued maintenance expenditures to keep the current roadway operable.
- The two structures, Binney Junction (14’8” bridge height) and Marysville UP (14’1” bridge height), would continue to have an extremely low vertical clearance continuing the trend of trucks hitting the structure, continue taking a different route to avoid the structures, and slowing down goods movement.
- Traffic safety needs to be addressed and the no build project would not address traffic safety.
- Traffic operations would still be inadequate as the existing highway is project to operate below acceptable levels of service and would experience long ques blocking adjacent intersections. Vehicle delay and operating speeds would continue to be below acceptable levels of service. Signals would not be installed at 16th and 24th street to improve traffic flow and idling.
- There would be continued segmentation of pedestrian facilities and sparsity of bicycle facilities, and lack of appropriate ADA facilities.
- Signals would not be installed at 16th and 24th street to facilitate pedestrian flow.
- Although there are currently safe routes to school implementation within the project area, improvements and updates to safe routes to school would not be likely with the no-build alternative.
- Complete Streets ensures that travelers of all ages and abilities can move safely and efficiently along and across a network of “complete streets”. Complete streets facilities would not be implemented with the no-build alternative.

Project Design Features

The following landscape elements are project design features as a part of the project.

Landscape

Caltrans Highway Design Manual and Standards Specifications. Improvements to the highway are required to comply with the Caltrans Highway Design Manual (HDM), which utilizes Context Sensitive Solutions consistent with Director’s Policy DP-22. The Highway Design Manual includes Design Standards 304.1, *Side Slope Standards*; 304.4, *Contour Grading and Slope Rounding*; and 902.1, *Design Considerations, Aesthetics*.

- The areas where trees are present should be protected in such a way as to reduce damage to the trees' root systems. Where it is possible to relocate the trenching for conduit in order to protect the vegetation, this method should be

employed. If trees need to be removed, the area should be replanted after the roadway work is completed.

During the Design Phase, landscape, planting, and architectural treatment plans would be prepared at the discretion of the District Landscape Architect. The following landscape and aesthetic elements would be incorporated into the project:

- Use native grass and wildflower species in erosion control grassland seed mix.
- Apply aesthetic design treatments to New Railroad Bridges and Underpasses and use sheen and non-reflective surface materials.
- Apply Aesthetic Treatments to New Road Closure Barrier at 17th Street.
- Revegetate Abandoned Railroad Alignment.
- Apply consistent treatment of sidewalk, curb, median, and crosswalks to provide visual unity and to reinforce the sense of direction and to continue previous SR-20/70 treatments.
- Context Sensitive Solutions should be implemented along the street corridor by implementing ADA standards that are visually pleasing and in keeping with the City of Marysville's long-term goals for their Main Street theme development (refer to photo simulations).
- Street trees should be implemented along the highway corridor's edge where it is feasible. The tree species would be determined by the landscape architect during the PS&E phase of the project.
- Project features described for minimizing light glare and light impacts are implemented, as practicable, during construction. These are measures like minimizing fugitive light from portable sources used for construction, limiting construction to daylight hours, and applying minimum lighting standards and evaluate the need for safety lighting.

Project Standard Measures

The following are standard measures and best management practices that are required in all projects:

Emergency Services and Utilities

Ongoing communication and planning sessions with local emergency services are crucial. Construction activities will be coordinated with

emergency service providers regularly so as not to hinder emergency responses. These interactions ensure alignment on protocols between construction and first responders, building a relationship on mutual understanding and cooperation. Implementing a uniform set of procedures, recognized and understood by both construction personnel and first responders, is essential. This standardization will reduce confusion during emergencies, ensuring everyone operates under a common set of guidelines. Furthermore, adopting an emergency response plan will promote a shared vocabulary and streamline actions during a crisis. This approach will streamline safety procedures and enhance construction's ability to respond effectively to crises. Effective communication during an emergency is vital. Construction will ensure the safety plans include multiple layers of emergency notification and two-way communication capabilities with staff and with first responders to reduce confusion and enable quick, decisive action.

Traffic/Transportation and Bike/Pedestrians

Caltrans would prepare and implement a Traffic Management Plan (TMP) to avoid and minimize the potential impacts of the proposed project on temporary access and circulation caused by potential traffic delays during construction. This includes bicycle and pedestrian measures for providing access and mobility during construction. These are standard measures required for all projects. For additional information on the TMP, see appendix H

Water Quality and Storm Water

Groundwater

Aerial Deposited Lead (ADL): Caltrans has an Agreement with the Department of Toxic Substance Control (DTSC) regarding the management and reuse of Aerially Deposited Lead (ADL). This agreement outlines and represents the specific protocol to be implemented in dealing with lead in soil from construction projects and requires all ADL-contaminated soils with a lead concentration above unrestricted use (currently 80 mg/kg) to be properly managed by Caltrans. The management activities to which this Agreement generally applies are the stockpiling, disposal, tracking, transportation and final placement of ADL contaminated soils. DTSC would monitor compliance with the Agreement and track highway improvement projects that reuse ADL-contaminated soils.

Groundwater - Soil Management: With respect to project operations, contaminated soil on construction sites would be managed to prevent any pollutants (such as lead) from entering storm drain systems or receiving waters. Soil from areas with aerially deposited lead (ADL) may be reused as indicated by the DTSC. This would often mean placing contaminated soil under pavement or clean soil. If contaminated soil cannot be reused safely, it would be transported to a licensed landfill or other disposal site. At all times,

stormwater, groundwater, etc. would be prevented from mixing with and transporting contamination. If any water does come in contact with contaminated soil, it would be collected and safely disposed of. During any movement of contaminated soil, the application of water or binder would be used to minimize dust and aerial displacement of lead.

Water Quality

Projects within Caltrans' ROW are required to adhere to the conditions of the Statewide National Pollutant Discharge Elimination System (NPDES) Permit (Permit) issued by the State Water Resources Control Board (Order No. 2012-0011-DWQ, NPDES Permit No. CAS000003). This Statewide Permit regulates storm water and non-storm water discharges from Caltrans' properties and facilities, and discharges associated with operation and maintenance of the State highway system. Caltrans facilities include, but are not limited to, maintenance stations/yards, equipment storage areas, storage facilities, fleet vehicle parking and maintenance areas and warehouses with material storage areas.

Adherence to the requirements of the Statewide NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ, NPDES No. CAS000002) General Permit (CGP) is required for projects that disturb one or more acres of land surface.

All applicable guidelines and requirements in the 2018 Caltrans Standard Specifications (CSS) Section 13 should be followed regarding water pollution control and general specifications for preventing, controlling, and abating water pollution in streams, waterways, water conveyance systems, and other bodies of water. Some of the pertinent specifications relating to the activities proposed are mentioned below.

- Per CSS Section 13-3, if the land disturbance associated with the project is equal to or exceeds 1 acre, an approved SWPPP would be necessary which specifies the level of temporary pollution control measures for the project.

- Per CSS Section 13-4, Job Site Management, the Contractor is required to control and prevent spills; address material waste and non-storm water management; and covers dewatering activities. In accordance with this section, the SWPPP (prepared by the Contractor) would describe mitigation measures that addresses effective handling, storage, usage, and disposal practices to control material pollution and manage waste and non-storm water at the job site before it encounters any storm drain, MS4 conveyance system, or receiving water.

- For operations over water, CSS 13-4.03E(5) details specifics and requirements meant to address the use of material and equipment over waterways.

- CSS Sections 13-9.02C and 13-9.02D is required to be followed and specifically address the handling of concrete waste during construction operations.

  Existing drainage facilities should be identified and protected by the application of appropriate Construction Site BMPs and all BMPs implemented must be routinely inspected for effectiveness and modified accordingly (by the Contractor).

  The Caltrans' Storm Water Management Plan (SWMP), the Project Planning and Design Guide (PPDG) Section 4, and the Evaluation Documentation Form (EDF) provide detailed guidance in determining if a specific project requires the consideration of permanent Treatment BMPs.

  Batch plants and/or rock crushing activities within Caltrans right-of-way (ROW) would require the preparation of an Air Space Lease Agreement prior to mobilization. The Lessee shall obtain an Industrial Strom Water General Permit Order 97-03-DWQ (General Industrial Permit) from the State Water Resource Control Board (SWRCB). The Lessee shall submit any amendments to the SWPPP, copies of any sampling/monitoring results, a copy of the annual report, and any reporting requirements covered by the General Industrial Permit. Batch plant or rock crushing activities outside of Caltrans ROW would require additional coordination.

Hazardous Waste

The following specifications are required to minimize project impacts: Naturally Occurring Asbestos (NOA), Aerial Deposited Lead (ADL), Treated Wood Waste (TWW), and Thermoplastic paint striping specifications.

Prior to construction, a structural survey for the Marysville UP and Binney Junction UP would be required as it is possible asbestos containing material and/or lead containing paint may be disturbed during construction.

Air Quality

Construction

Caltrans special provisions and standard specifications include the requirement to minimize or eliminate dust through application of water or dust palliatives. The following construction dust and equipment exhaust emissions measures shall be implemented when practical, during all phases of construction work:

- Control measures would be implemented as specified in Caltrans 2018 Standard Specifications Section 10-5 “Dust Control”, Section 14-9 “Air Quality” and Section 18 “Dust Palliatives”.

- Adhere to FRAQMD Rule 3.16 (Fugitive Dust).
- Implement all feasible PM_{10} control measures recommended by the FRAQMD.

- Implement Fugitive Dust Control Plan.

  The FRAQMD CEQA Guidelines provide feasible control measures for construction emissions. Measures to reduce PM_{10}, $PM_{2.5}$ and diesel particulate matter from construction are recommended to ensure that short-term health impacts to nearby sensitive receptors are avoided. These are listed below:

- All grading operations on a project should be suspended when winds exceed 20 miles per hour or when winds carry dust beyond the property line despite implementation of all feasible dust control measures.
- Construction sites shall be watered as directed by the Department of Public Works or Air Quality Management District and as necessary to prevent fugitive dust violations.
- An operational water truck should be onsite at all times. Apply water to control dust as needed to prevent visible emissions violations and offsite dust impacts.
- Onsite dirt piles or other stockpiled particulate matter should be covered, wind breaks installed, and water and/or soil stabilizers employed to reduce wind-blown dust emissions. Incorporate the use of approved non-toxic soil stabilizers according to manufacturer’s specifications to all inactive construction areas.
- All transfer processes involving a free fall of soil or other particulate matter shall be operated in such a manner as to minimize the free fall distance and fugitive dust emissions.
- Apply approved chemical soil stabilizers according to the manufacturers’ specifications, to all-inactive construction areas (previously graded areas that remain inactive for 96 hours) including unpaved roads and employee/equipment parking areas.

- To prevent track-out, wheel washers should be installed where project vehicles and/or equipment exit onto paved streets from unpaved roads. Vehicles and/or equipment shall be washed prior to each trip. Alternatively, a gravel bed may be installed as appropriate at vehicle/equipment site exit points to effectively remove soil buildup on tires and tracks to prevent/diminish track-out.

- Paved streets shall be swept frequently (water sweeper with reclaimed water recommended; wet broom) if soil material has been carried onto adjacent paved, public thoroughfares from the project site.
- Provide temporary traffic control as needed during all phases of construction to improve traffic flow, as deemed appropriate by the Department of Public Works and/or Caltrans and to reduce vehicle dust emissions.
- Reduce traffic speeds on all unpaved surfaces to 15 miles per hour or less and reduce unnecessary vehicle traffic by restricting access. Provide appropriate training, onsite enforcement, and signage.
- Reestablish ground cover on the construction site as soon as possible and prior to final occupancy, through seeding and watering.
- Disposal by burning: Open burning is yet another source of fugitive gas and particulate emissions and shall be prohibited at the project site. No open burning of vegetative waste (natural plant growth wastes) or other legal or illegal burn materials (trash, demolition debris, et. al.) may be conducted at the project site. Vegetative wastes should be chipped or delivered to waste to energy facilities (permitted biomass facilities), mulched, composted, or used for firewood. It is unlawful to haul waste materials offsite for disposal by open burning.

Operational

No avoidance or minimization measures on CO and NOx are required, as the project would not increase operational CO and NOx emissions during the future years in comparison with the existing condition. The following measures could be considered to feasibly reduce GHG emissions.

- Apply stabilization/landscaping of unpaved areas to minimize re-entrained dust.
- Consider landscaping with dense and evergreen trees. According to a calculation tool by USDA, the rate of carbon sequestration varies by type and age of tree from about 10 pounds per year for a young tree to about 50 pounds per year for a mature tree. On a daily basis, a young tree would remove 1.37 x 10-5 tons per day, and a mature tree would remove 6.85 x 10-5 tons per day of CO2.
- Consider design features and/or apply additional methods to adjust the posted speed limit to the optimum speed for less GHG emissions. GHG reductions may be achieved by enforcing the speed limit on highways.
- Reduce the demand for single-occupancy vehicle trips and use cleaner fueled vehicles or retrofit equipment with emission control devices.
- Consider replacing a bus using diesel or gasoline with a bus using biodiesel, natural gas, or electricity for a local transit agency.
- Encourage and support employer vanpool and carpool programs.

Climate Change

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

Energy

Construction - Energy

The guidance in section 15126.2(b) and Appendix F of the CEQA Guidelines, Energy Conservation provide feasible conservation measures during construction. While construction would result in a short-term increase in energy use, construction design features would help conserve energy. The following measures shall be implemented when practical:

- Reduce grades and curvatures in construction of the project.
- Use recycled and energy-efficient building materials, energy-efficient tools and construction equipment, and renewable energy sources in construction and operation of the project.
- Improve operations and maintenance practices by regularly checking and maintaining equipment to ensure its functioning efficiently.
- Optimize start-up time, power-down time, and equipment sequencing.
- Revise janitorial practices to reduce the hours that lights are turned on each day.
- Perform monthly maintenance of heating and cooling equipment to guarantee efficient operation throughout the year.
- Review and emphasize the financial and environmental results of a preventative maintenance program for major systems and components.
- Set goals and a methodology to track and reward improvements.
- Visually inspect insulation on all piping, ducting and equipment for damage (tears, compression, stains, etc.).
- Educate employees about how their behaviors affect energy use.

- Ensure that team members are trained in the importance of energy management and basic energy-saving practices. Hold staff meetings on energy use, costs, objectives, and employee responsibilities.

  Operational - Energy

  The following conservation measures for direct energy consumption from mobile sources shall be implemented when practical:

- Participate in Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP). The ARFVTP includes electric vehicle charging infrastructure, hydrogen refueling infrastructure, natural gas vehicles, and lower carbon transportation fuel.

- Participate in vanpool and carsharing programs.

1.5 Comparison of Alternatives

After the public circulation period, all comments would be considered, and the Department would select a alternative and make the final determination of the project's effect on the environment. Under the California Environmental Quality Act (CEQA), the Department would certify that the project complies with CEQA, prepare findings for all significant impacts identified, prepare a Statement of Overriding Considerations for impacts that would not be mitigated below a level of significance, and certify that the findings and Statement of Overriding Considerations have been considered prior to project approval. The Department would then file a Notice of Determination with the State Clearinghouse that would identify whether the project would have significant impacts, if mitigation measures were included as conditions of project approval, that findings were made, and that a Statement of Overriding Considerations was adopted.

1.4.1 Identification of a Preferred Alternative

After comparing and weighing the benefits and impacts of all feasible alternatives, the Project Development Team has identified Alternative 1 as the preferred alternative, subject to public review. Final identification of a preferred alternative will occur after the public review and comment period.

1.6 Alternatives Considered but Eliminated from Further Discussion

Alternative 1A

Alternative 1A would build temporary railroad structures (shoofly's) directly adjacent to the existing railroad structures, shift the trains to the temporary tracks, then demolish the existing railroad structures, and then build new railroad structures on the existing alignment, as they are today. The temporary railroad structures would be there and in use for approximately two years, to allow construction of the permanent railroad structures. This alternative proposes to temporarily relocate the Marysville UP to the north and Binney Junction UP to the south, then permanently replace and lengthen the Marysville and Binney Junction UPs at their existing locations and lower the roadway profile to meet vertical clearance standards.

Alternative 2A

Alternative 2A would build temporary railroad structures (shoofly's) directly adjacent to the existing railroad structures, shift the trains to the temporary tracks, demolish the existing railroad structures, and then build new railroad structures on the existing alignment, as they are today. The temporary railroad structures would be there and in use for approximately two years, to allow construction of the permanent railroad structures.

Alternative 3:

Along State Route 70 (B Street), in the City of Marysville, from 0.1 Miles south of 14th Street (PM 14.8) to just north of Cemetery Road (PM 15.7), this project alternative proposes to rehabilitate existing structural section, construct 2 through lanes, 2 auxiliary lanes, a two-way left turn lane (TWLTL), standard shoulders, and standard sidewalks. The Marysville and Binney Junction Underpasses would be replaced to meet vertical clearance standards. The existing west levee from the Binney Junction UP to Cemetery Road would be relocated to the east to accommodate the additional roadway width.

The existing pump station would be relocated to the south and an additional pump station would be installed at the Marysville Underpass to improve drainage. Access to/from 17th Street would be removed and the intersection at East 24th Street would be replaced with a roundabout. In addition, the intersection at 16th street would be signalized. This alternative was ultimately rejected due to a required change in the roadway alignment and profile in order to accommodate the roundabout footprint. The larger footprint causes additional impacts to the Yuba-Sutter Transit center, Marysville High School and Binney Junction UPRR structure.

Alternative 4:

Along State Route 70 (B Street), in the City of Marysville, from 0.1 Miles south of 14th Street (PM 14.8) to just north of Cemetery Road (PM 15.7), this project alternative proposes to rehabilitate existing structural section,

construct 2 through lanes, 2 auxiliary lanes, a two-way left turn lane (TWLTL), standard shoulders, and standard sidewalks. The Marysville Underpass would be replaced to meet vertical clearance standards. The Binney Junction Underpass with be replaced with an Overhead structure and would meet vertical clearance standards. The existing pump station would be removed, and a new pump station would be installed at the Marysville Underpass to improve drainage. Access to/from 17th Street would be removed and the intersection at East 24th Street would be signalized. In addition, the intersection at 16th street would be signalized. This alternative was rejected due to potential Yuba and visual impacts generated from an elevated viaduct and would not address the project's purpose and need for rehabilitation of the existing pavement.

Alternative 5:

Along State Route 70 (B Street), in the City of Marysville, from 0.1 Miles south of 14th Street (PM 14.8) to just north of Cemetery Road (PM 15.7), this project alternative proposes to rehabilitate existing structural section, construct 2 through lanes, 2 auxiliary lanes, a two-way left turn lane (TWLTL), standard shoulders, and standard sidewalks. The Marysville and Binney Junction Underpasses would be replaced to meet vertical clearance standards. The existing finger levee from the Binney Junction UP to Cemetery Road would be relocated to the east to accommodate the additional roadway width. A portion of the Catholic Cemetery would be relocated due to the roadway shifting to the west at the High School. The existing pump station would be relocated to the south and an additional pump station would be installed at the Marysville Underpass to improve drainage. Access to/from 17th Street would be removed and the intersection at East 24th Street would be signalized. In addition, the intersection at 16th street would be signalized. This alternative was ultimately rejected due to direct impacts to sensitive and unavoidable resources such as the Catholic Cemetery.

1.7 Permits and Approvals Needed

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

Table 1.1 Permits and Approvals

Agency	Permit/Approval	Status
Central Valley Regional Water Quality Control Board (CVRWQCB)	Section 401 Water Quality Certification	Complete
U.S. Army Corps of Engineers (USACE)	Section 404 Permit	Application submitted. May 22, 2024

U.S. Army Corps of Engineers (USACE)	Section 408 Levee Restoration, Design Permit	Application submitted. March 30, 2023

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

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

- Coastal Zone – The project is not near or within the Coastal Zone in California.
- Wild and Scenic Rivers – There are no "wild and scenic rivers" within or near the project area.
- Farmlands/Timberlands – As part of the project, no farmlands or timberlands would be affected.
- Paleontology – The project does not have the potential to affect paleontological resources as the project area, location, and soils would not support paleontological resources.
- Threatened and Endangered Species – The project would have a No Effect Finding on all listed threatened and endangered species or critical habitat. A U.S. Fish and Wildlife (USFWS) species list was obtained and concludes a No Effect finding for each species and critical habitat because there are no species within the project area and immediate vicinity which would be affected by the project (App E). In addition, the project is located outside National Oceanic Atmospheric Association (NOAA) Fisheries Service jurisdiction; therefore, a NOAA species list is not required and No Effects to NOAA species is anticipated. Lists of species with *no effect* are the following:

  Federal Listed Species – *No Effect*

  - California red-legged frog (*Rana draytonii*) Federal threatened, State species of special concern
  - Chinook salmon – Central Valley spring-run (*Oncorhynchus tshawytscha*) Federal threatened, State threatened
  - Chinook salmon – Sacramento River winter-run (*Oncorhunchus tshawytscha*) Federal endangered
  - Conservancy fairy shrimp (*Branchinecta conservatio*) Federal endangered
  - Delta smelt (*Hypomesus transpacificus*) Federal threatened
  - Giant garter snake (*Thamnophis gigas*) Federal threatened, State threatened
  - Green sturgeon – southern DPS (*Acipenser medirostris*)
  - Hartweg's golden sunburst (*Pseudobahia bahiifolia*) Federal endangered, State endangered, rare plant rank 1B.1
  - Least Bell's vireo (*Viero belii pusillus*) Federal endangered, State endangered
  - Steelhead - Central Valley distinct population segment (DPS) (*Oncorhynchus mykiss irideus*) Federal threatened

- Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) Federal threatened
- Vernal pool fairy shrimp (*Branchinecta lynchi*) Federal threatened
- Vernal pool tadpole shrimp (*Lepidurus packardi*) Federal endangered
- Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) Federal threatened, State endangered

Critical habitat and Essential Fish Habitat - *No Effect*

- Chinook salmon – Central Valley spring-run Critical Habitat
- Steelhead – Central Valley Critical Habitat
- Green sturgeon – southern DPS Critical Habitat
- Chinook Salmon Essential Fish Habitat

State Listed and Special Status Species – *No Effect*

- Bank swallow (*Riparia riparia*) State threatened
- Ferris' milk vetch (*Astragalus tener var. ferrisiae*) rare plant rank 1B.1
- Recurved larkspur (*Delphinium recurvatum*) rare plant rank 1B.2
- Song sparrow – Modesto population (*Melospiza melodia*) State species of special concern
- Swainson's hawk (*Buteo swainsonii*) State threatened
- Tricolored blackbird (*Agelaius tricolor*) State candidate endangered and species of special concern
- Veiny monardella (*Monardella venosa*) rare plant rank 1B.1
- Special Status Plant Species – There are no special status plant species within the project area, as concluded in the Natural Environment Study (NES) .
- Wildfire – This project and project area is not within or adjacent to high fire hazard severity area, according to CalFire's State Responsibility Area map and the Local Responsibility Area map.

2.1 Human Environment

Existing and Future Land Use

The State Route 70 Binney Junction Roadway Rehabilitation and Complete Streets Project is located north of the City of Marysville in Yuba County. The City of Marysville is located on the flat and low-lying flood plain between the Yuba and Feather Rivers. Yuba County is bordered on the west by Sutter County, on the east by Nevada County, on the north by Butte County, on the south by Placer County, and it is surrounded by agricultural land and mountainous terrain.

SR 70 is the primary north-south travel route through Yuba County and serves the local population and also provides a throughway for public travel. The City of Marysville

Zoning Map (Figure 2.1) classifies the land uses surrounding the proposed project area as Two-Family Residence, General Commercial, Light Industrial, and Secondary Open Space. Land use designations surrounding the project are shown in Figure 2.2 (Marysville, 1985).

The project site is located north of the Marysville Cemetery (PM 15.7), south of 14th Street, and SR 70 is in the center of the project area. The project area along SR 70 is bordered on the west by Yuba-Sutter Transit, Marysville Youth and Civic Center, Baseball Backyard, Veteran's Memorial Center, Marysville Veterinary Hospital, Frosty's Grill N' Chill, Colusa Casino Stadium, and Ellis Lake. On the east side of SR 70 is the Marysville Joint Unified School District, Marysville High School, Yanez Custom Wheel & Tire Auto, and a commercial strip, which includes Dollar Tree and El Torrero Mexican Carneceria and Taqueria.

Within the project area, the parcel sizes vary. The largest parcels are zoned Secondary Open Space. These parcels are the Marysville High School and the Marysville and Catholic Cemeteries. The General Plan Map describes the area as Urban Open Space. Urban or Enhanced Open Space is designated for parks, agriculture, public utilities, and mineral extraction uses.

The City of Marysville Zoning (Figure 2.1) map displays the use and development of properties. The purpose of the zoning map is to ensure that land is use is developed in a way that is optimal while working towards the health, safety and welfare of a community.

The Environmental Study Limits (Figure 2.2) aims to understand, analyze, and solve environmental concerns within the project area.

The Community Impact Assessment Study Area (Figure 2.4) aims to understand the impact of a project on a community and to use this information to make decisions.

Figure 2.1 City of Marysville Zoning Map

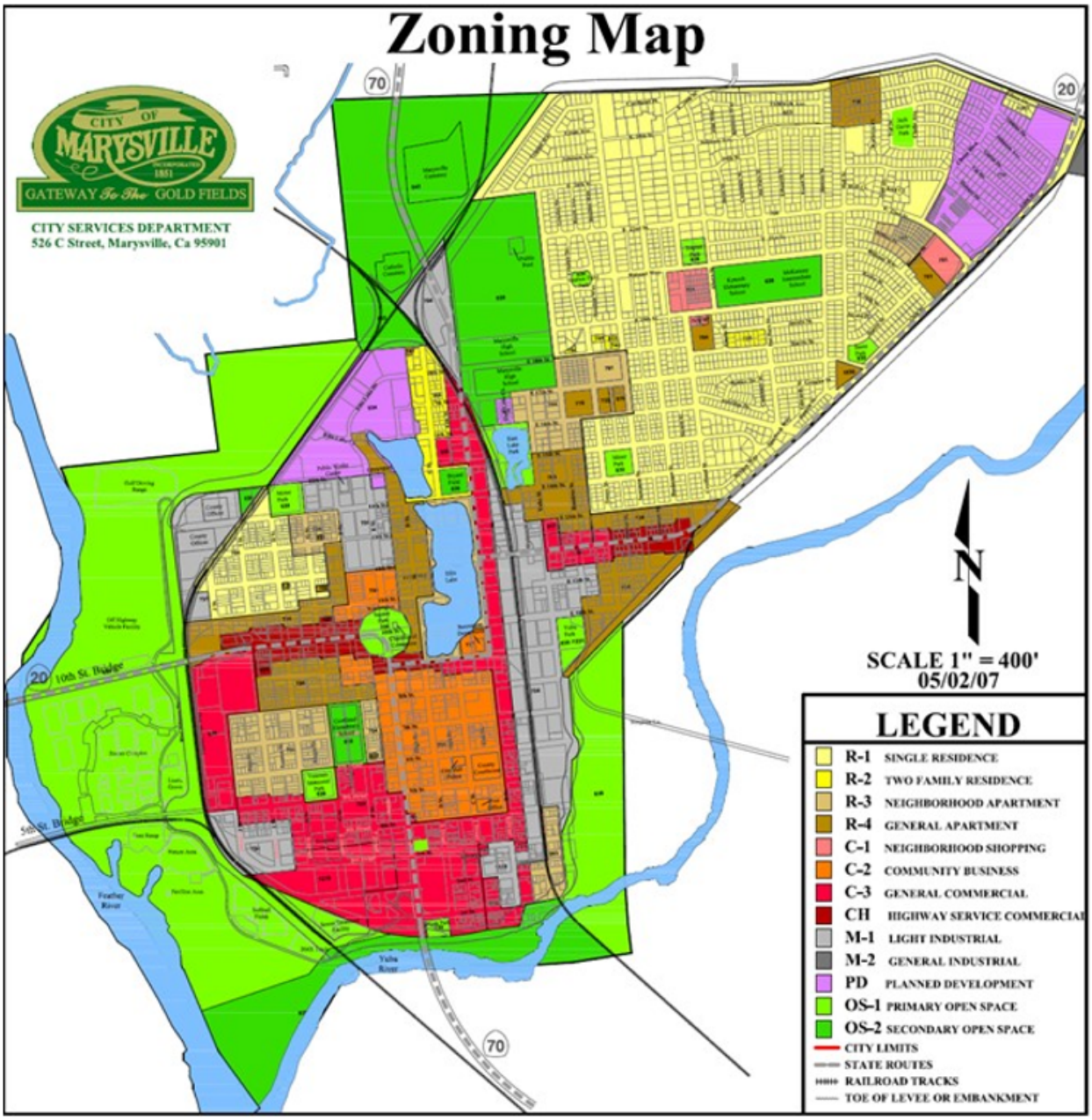


Figure 2.2 General Plan Designation – Land Use

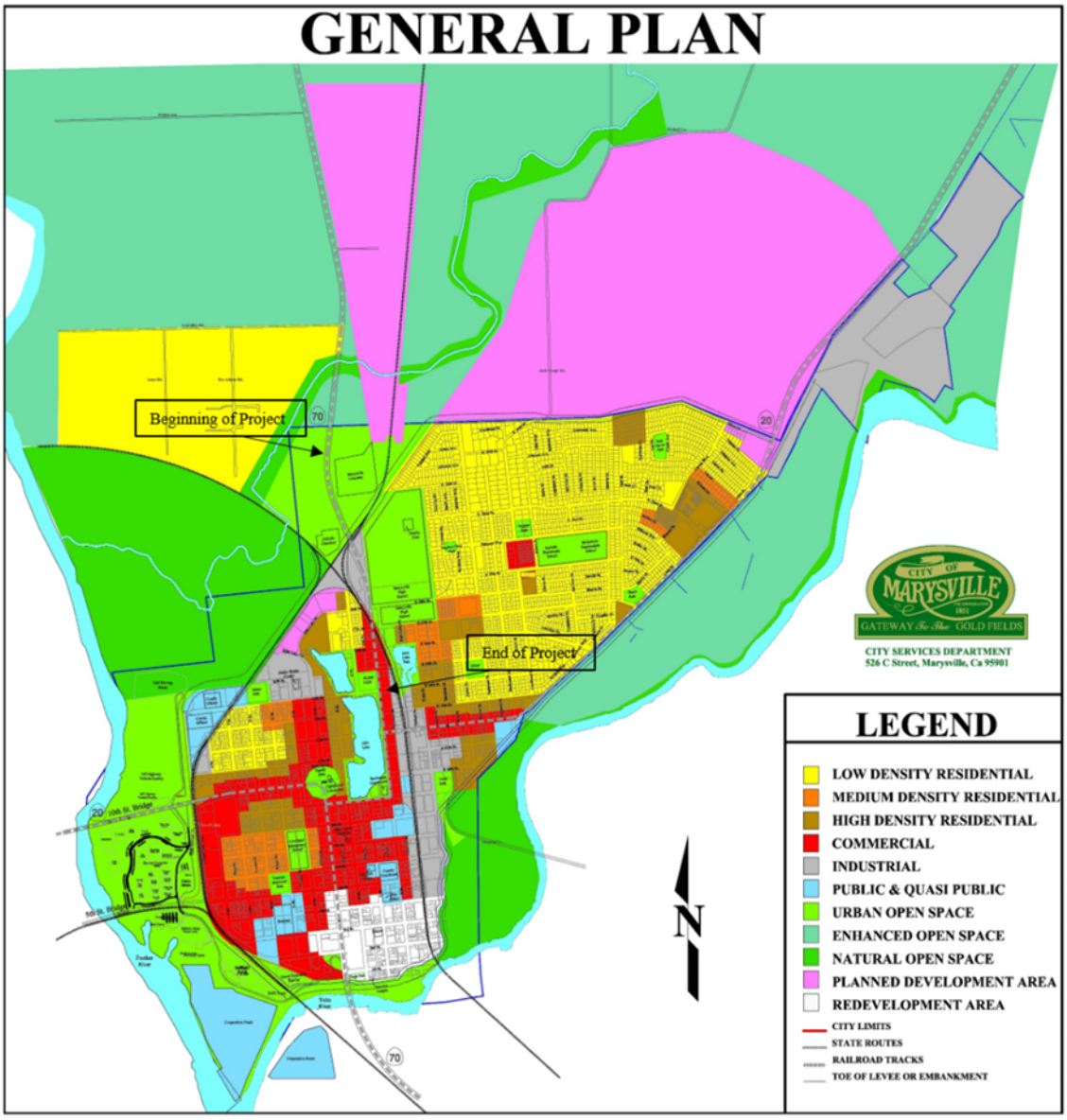


Figure 2.3 Project Environmental Study Limit

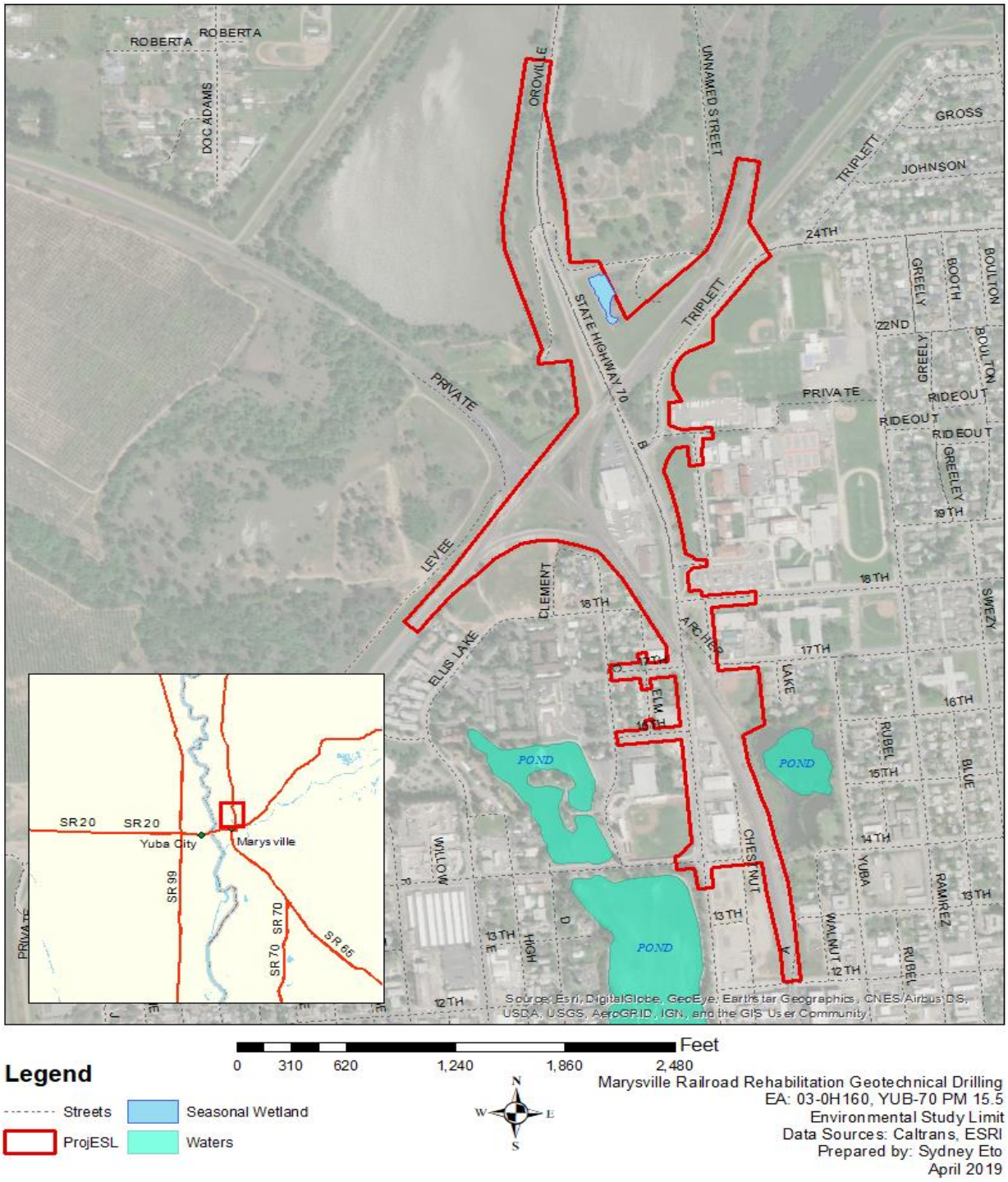
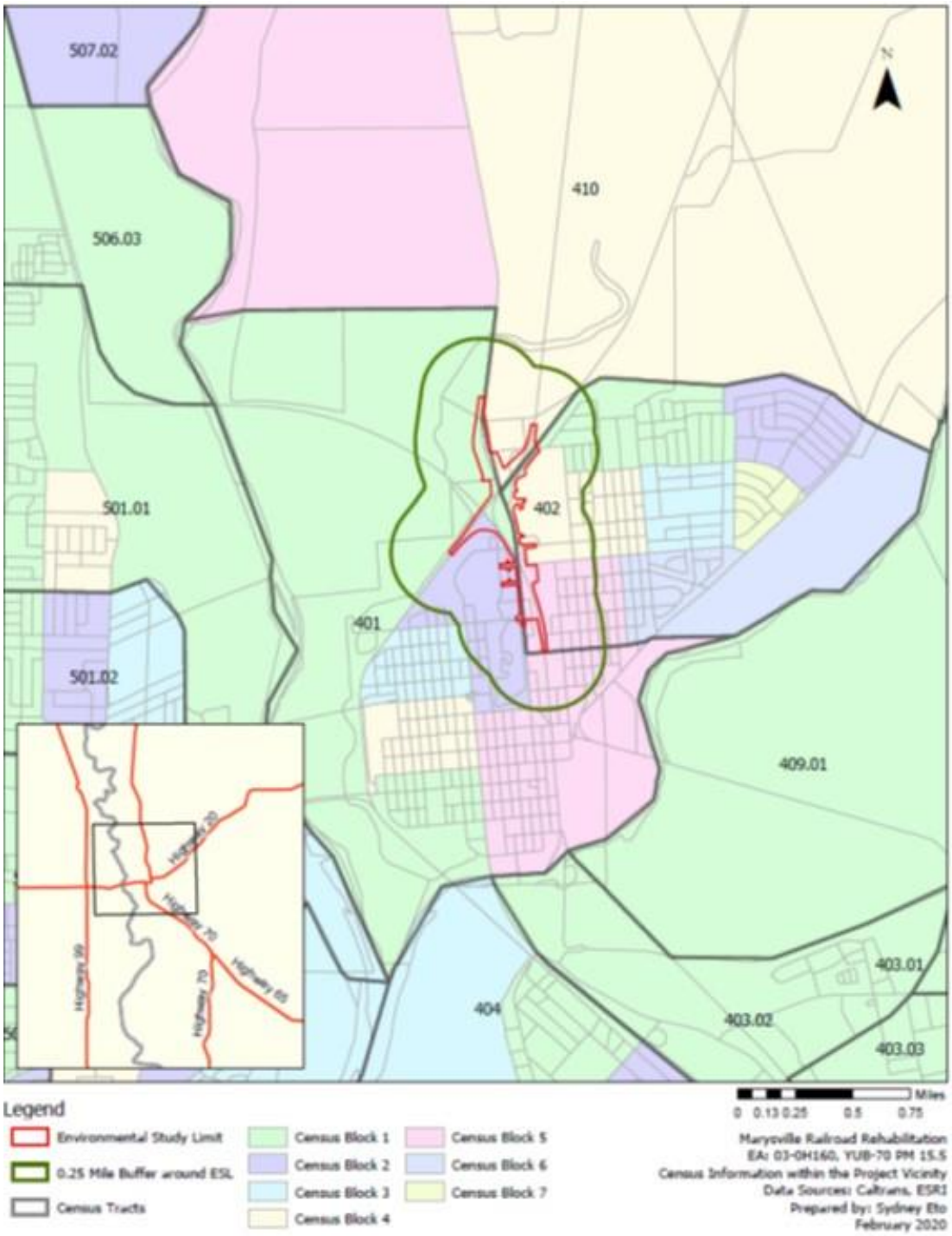


Figure 2.4 Community Impact Assessment (CIA) Study Area



Several projects are in the planning stages within the project vicinity. The planned projects are listed below, in Table 2.1, and are within two miles of SR 70.

Table 2.1 Planned Projects Near SR 70

Adaptive Signal System	Yuba County	Construct and program an adaptive signal system on SR 70 throughout Marysville	Planned
Reconstruct 3 UPRR under crossings to standard clearance and 4 highway travel lanes, provide pedestrian facilities.	Yuba County	Reconstruct 3 railroad crossings in Marysville at the UPRR Binney Junction over SR 70	Planned
Various Bicycle Improvements throughout Marysville	Yuba County	Add various Class II and Class III bicycles lanes through the city.	Planned
In Yuba County on Route 70 in the City of Marysville. NB/SB auxiliary lanes between Feather River Blvd IC and 3rd Street.	Yuba County	In Yuba County on Route 70 in the City of Marysville. NB/SB accelerated lanes between Feather river Blvd IC and 3rd Street	Project Development Stage
SR 70 Passing Lanes - Segments 4 & 5	Yuba County	On SR 70 north Marysville, from Laurellen Road to Butte County line (PM 16.2/25.8): Construct a new continuous passing lane in both directions. (CTIPS ID 107-0000-1142)	Completed December 2023
SR 70 Safety Improvements	Yuba County	Near Marysville, from Laurellen Road to Butte County Line - Widen shoulders and improve clear recovery zone (PM 16.2/25.8); add continuous two-way left turn lane (TWLTL) throughout the project; 2 separate slow moving vehicle lanes are planned in each direction. Each one is less than a mile in length (PM	Completed December 2023

		16.2/25.8); overlay with RHMA; replace and extend culverts; install TMS elements, fiber optic system elements, and lighting intersection; and install a classification station. Seg 4 & 5 SHOPP	
SR 70 Simmerly Slough Bridge Replacement	Yuba County	Near Marysville, on SR 70, from 0.1 mile north of Binney Junction Underpass to 0.3 mile north of Laurellen Road	Completed September 2021
Marysville Bicycle and Pedestrian Improvement	Yuba County	Throughout Marysville, with concentration downtown and near schools: Install 26 bicycle racks on public sidewalks, 7.23 miles of bicycle lanes, 5.74 miles of bicycle routes , four high visibility crosswalks, two Rectangular Rapid Flash Beacons, two speed feedback signs, a raised intersections, and 1,193 feet of sidewalk.	Complete before 2025
Marysville Medical Arts District Transportation Development	Yuba County	5th St., from SR 70 to J St., including the Medical Arts District: Rehabilitate Road. Second St (2nds St.) from Highway 70 to J St., including the Medical Arts District: Extend and realign.	Programmed
Pavement Rehabilitation Project IV	Yuba County	Pavement Rehabilitation: 25th St. from Sampson to Covillaud, Sicard St. from East 16th St. to East 19th St., Freeman St. from East 18th St. to East 19th St. and East 19th St. from Covillaud to Ramirez. (Project IV)	Planned

Pavement Rehabilitation Project V	Yuba County	Pavement Rehabilitation: Rideout Way from Covillaud to Ramirez St. Greeley from East 19th Street to East 22nd Street and Boulton from East 19th Street to East 22nd St (Project V)	Planned
Bridge Preventive Maintenance Program A	Yuba County	Bridge Preventive Maintenance Program (BPMP), various bridges in the County of Yuba. See Caltrans Local Assistance HBP website for backup list of bridges.	Planned
Woodruff Lane	Yuba County	Roadway Safety Improvements: Widen shoulders on each side of road from Highway 70 to Highway 20	Project Development
Rio d'Oro Specific Plan 11 mile north of the project area between Palermo Road to the south and Ophir Road to the North	Butte County	Residential, commercial, and developed parkland between Palermo Road to the south and Ophir Road to the north	Completion Year 2035
Camp Fire Debris Clean Up	Butte County	Truck trips from ongoing debris removal in Paradise, Butte County	Complete, as of 2020
Hard Rock Casino	Yuba County	New casino and hotel development approximately 9 miles south of the project limits on, 40 Mile Road, between SR 70 and SR 65.	Completion Year 2019

Environmental Consequences

No Build Alternative

The No Build Alternative would not affect existing land use because the proposed project would not be constructed.

Build Alternatives

For the Build Alternatives 1 and 2, the proposed project would improve safety for all modes of transportation. Land acquisitions would be required for all alternatives. The Build Alternatives would not change the land use or zoning designations in the study area and the project would increase the traffic flow and safety throughout the study area.

Avoidance, Minimization, and/or Mitigation Measures

No potential conflicts with current or planned land use in the study area are anticipated because this is a safety project to improve existing operational conditions rather than to accommodate future planned or proposed development projects. Therefore, no avoidance, minimization, or mitigation measures are required.

2.2 Consistency with State, Regional and Local Plans and Programs

Affected Environment

The study area is within the City of Marysville; consequently, land use planning is governed by the City of Marysville. The *City of Marysville 2013-2021 Housing Element Updates* explores resources and constraints for the city. The housing element explains that the city is primarily built-out with few larger parcels of undeveloped land.

The *City of Marysville 2013-2021 Housing Element Updates* also describes the unique physical characteristics of the city that have greatly impacted both its development rate and growth pattern. The expansion of the city is constrained by existing river levee boundaries. Due to this physical constraint, population growth in Marysville throughout the twentieth century and the beginning of the twenty-first century has averaged only about 1% per year (Marysville 2013-2021 Housing Element).

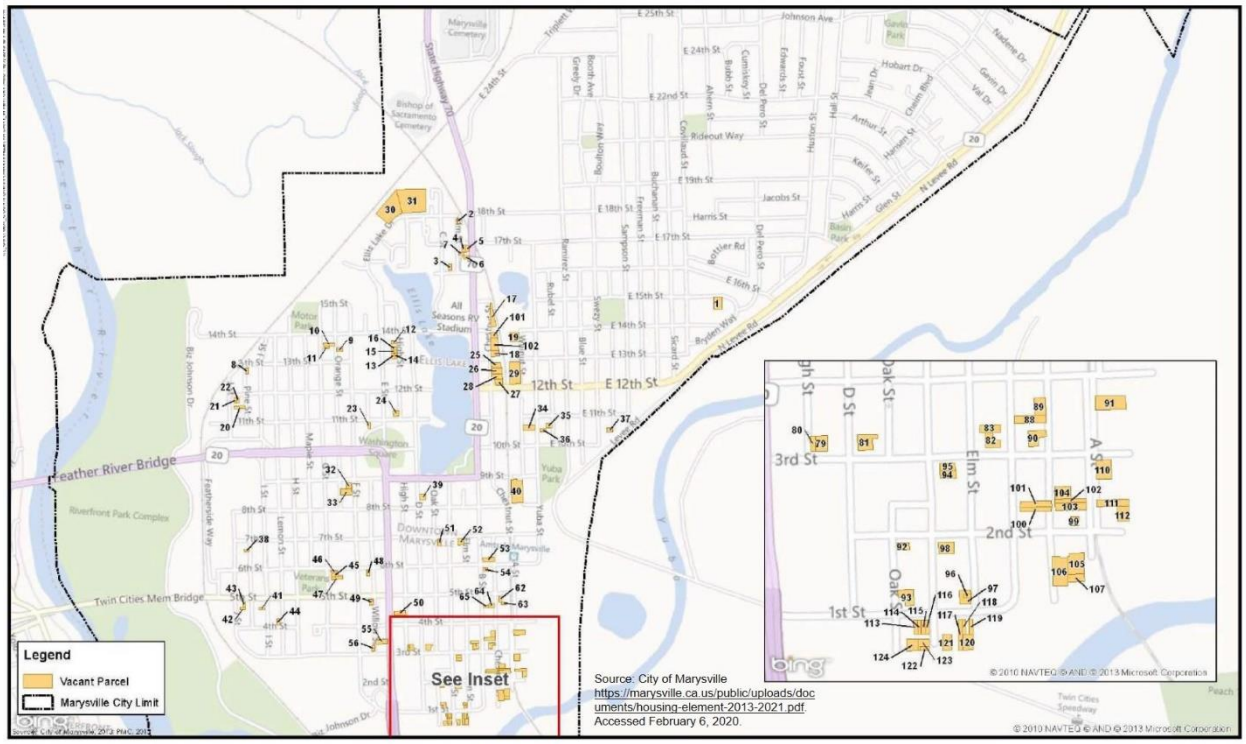
Two rivers surround the city; the Feather River, located west of Marysville, and the Yuba River, located east of Marysville. “Flooding in and around the city has been a recurring factor in Marysville’s history, because the city lies at an elevation well below river flood levels. Today, the city is protected from flooding by a circular system of levees. These levees, however, restrict urban development substantially to the area within their bounds and are the major controlling factor affecting the future growth of the city” (General Plan 1985).

In the 1980s, the City of Marysville experienced a higher population increase of over 2% per year. This increase was primarily due to a higher rate of occupancy of the existing housing stock and larger household sizes, not a larger stock of housing. While the levee system has reduced flood risk and created a habitable community, this system also creates a barrier for city growth. Since the city limits are confined, annexation for development is restricted. Additionally, there are very few vacant infill sites. Growth may occur by development of vacant parcels. As part of the 2013 Housing Element update, an analysis for residential development was conducted. This analysis concluded that the city could accommodate 445 additional housing units. [See Figure 2.5 which shows the vacant sites throughout the city (Marysville 2013-2021 Housing Element)].

State, Regional, and Local Plans

The regional transportation agency for Yuba County is SACOG. It is responsible for releasing the region's regional transportation plan. SACOG released the 2016 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) in February 2016. The plan emphasizes road maintenance and rehabilitation to help keep the existing transportation system in a state of good repair and discusses improvements from Marysville to the Butte County Line. SACOG also describes growth within Marysville as occurring primarily through small-lot single family infill.

Figure 2.5 Location of Vacant Sites



City of Marysville

The following general plan policies are relevant to and consistent with the proposed project.

- Goal for Residential Land Use: To designate, protect and provide land to ensure sufficient residential development to meet community needs.
- Policies for Commercial Land Use: To promote the retention and renewal of the central business district and the redevelopment area as the commercial center of the city.
- Open Space, Conservation, and Recreation Goals and Policies: To designate, protect, and conserve the natural resources, open space and recreation lands in the city; and provide opportunities for recreation activities to meet citizen's needs.
- Outdoor Recreation: To preserve the lakes as major open space areas within the city and continue to improve the recreational uses surrounding the lakes and the aesthetics of the shoreline.

- Circulation of Scenic Highways: To provide and maintain a safe and efficient system of streets, highways, and public transportation to service resident's needs, promote sound land use, and protect and enhance scenic highways. (Marysville.ca.us/Planning Guide/General Plan)

Yuba County General Plan

- Policy CD16.4: On State highways, the level of service goals included in the adopted Yuba-Sutter Congestion Management Plan shall be maintained, as feasible.

- Policy CD18.1: The County would support regional transportation planning for roadway improvements within Yuba County identified by SACOG, Caltrans, and documented in the Metropolitan Transportation Plan and Highway Concept Reports.

- Policy CD14.4: The County would coordinate with special districts, cities, Local Agency Formation Commission (LAFCO), SACOG, Caltrans, joint powers authorities, and other relevant agencies to provide efficient local and regional infrastructure, public facilities, and public services.

- Policy CD18.8: The County would coordinate with Caltrans to implement context-sensitive improvements to State facilities that are keyed to local multi-modal transportation needs.

- Policy CD22.1: The County would maintain a system of truck routes that provide for the movement of goods.

Environmental Consequences

No Build

The No Build Alternative would not improve safety or traffic operations in the study area, which is a primary route through the city. Many of the goals, policies, and actions in the General Plan are focused on maintaining a transportation system that is safe and efficient for all modes of transportation. The No Build Alternative would not address the current needs of the project.

Build Alternatives

Implementation of the proposed project would improve safety by providing 2 through lanes, 2 auxiliary lanes, a two-way left turn lane (TWLTL), standard shoulders, and standard sidewalks on approximately 2.8 miles of SR 70, and would involve conversion of private land, not currently used for transportation proposes, to transportation Right of Way (ROW). In addition, temporary construction easements from adjacent parcels,

would be obtained for construction. With the exception of the conversion of land to transportation uses and the use of land for construction purposes, no substantial change in land use or underlying zoning designation within the study area would occur as a result of implementing the proposed project. The project is consistent with local plans and policies, and land uses.

Avoidance, Minimization, and/or Mitigation Measures

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

2.3 Parks and Recreational Facilities

Regulatory Setting

The Park Preservation Act (California Public Resources Code [PRC] Sections 5400-5409) prohibits local and state agencies from acquiring any property which is in use as a public park at the time of acquisition unless the acquiring agency pays sufficient compensation or land, or both, to enable the operator of the park to replace the park land and any park facilities on that land.

Affected Environment

Various parks and recreational facilities in the project area include the following: the Marysville High School Baseball Fields along 24th Street, the Marysville Youth and Civic Center (MYCC), the Little League Earle Yorton Field at Chestnut Street, East Lake Park located east of SR 70 and Union Pacific Railroad, just west of Yuba Street, Ellis Lake, Veterans Memorial Center and Colusa Casino Stadium. There are no parks within or near the project area that are protected by the Park Preservation Act.

Resources Evaluated Relative to the Requirements of Section 4(f)

Properties with no Section 4(f) Use

Section 4(f) is a part of the U.S Department of Transportation (USDOT) Act of 1966 that protects certain types of public and private properties from being negatively impacted by transportation projects. This section of the document discusses parks and recreational facilities found within or next to the project area that do not trigger Section 4(f) protection because either: 1.) they are not publicly owned, 2.) they are not open to the public, 3.) the project does not permanently use the property, or 4.) the proximity impacts do not result in constructive use. As discussed below, the provisions of Section 4(f) do not apply to the parks and recreational facilities within proximity to the project area.

The Marysville Youth Center is a privately-owned recreational facility that is open to the public. The primary purpose is to serve not only the at-risk youth population in the surrounding community, but also provide fun, safe activities available to families. The

facility is also available for private rental. Since the facility is privately and not publicly owned, Section 4(f) does not apply.

The Colusa Casino Stadium home to the Marysville Drakesis publicly owned by the City of Marysville. However, the facility is not open to the public, thus Section 4(f) does not apply.

The Marysville High School Baseball Field, Earle Yorton Little League Field, Eastlake Park and Ellis Lake, are recreational facilities that are all adjacent to the project limits. Since project activities would not result in temporary or permanent impacts to the activities, features, or attributes qualifying them for protection under Section 4(f), Section 4(f) is not triggered.

2.4 Growth

Regulatory Setting

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

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

Affected Environment

Yuba County has experienced moderate growth over the last several decades, and most of this growth is concentrated in Marysville (Table 2.2). According to the World Population Review 2024, the total population of Yuba County was 12,263 in 2015. The City of Marysville grew by 5% during the nine-year period; the overall county grew by 8%. Most of this population growth was concentrated within the City of Marysville.

Table 2.2 Population Estimates - Marysville and Yuba County (2011-2019 w/ 2010 Census Benchmark) Updated Table

County/City	1/1/2015	1/1/2016	1/1/2017	1/1/2018	1/1/2019	1/1/2020	1/1/2021	1/1/2022	1/1/2023	1/1/2024
Marysville	12,263	12,292	12,389	12,581	12,627	12,851	12,704	12,631	12,674	12,615
Yuba County	74,282	74,862	76,176	77,202	77,916	81,958	83,227	84,353	85,722	87,091

Source: World Population Review 2024

Environmental Consequences

No-Build Alternative

The No Build Alternative would not cause growth because the proposed project would not be constructed and there would be no change in land use. Safety operations and access would not change.

Build Alternatives:

The analysis of growth-related, indirect impacts follows the first-cut screening guidelines provided in Caltrans' *Guidelines for Preparers of Growth-Related, Indirect Impact Analyses* (California Department of Transportation 2006). The first-cut screening analysis focused on addressing the following questions.

Q: To what extent would travel times, travel cost, or accessibility to employment, shopping, or other destinations be changed? Would this change affect travel behavior, trip patterns, or the attractiveness of some areas to development over others?

A: Implementing the Build Alternatives would rehabilitate the existing roadway to reduce maintenance expenditures; improve safety, sight distance and traffic operations, address inadequate shoulders and vertical clearances to facilitate goods movement, provide bicycle/pedestrian facilities, comply with ADA, increase multimodal mobility and operations to meet complete streets and safe routes to school policies.

Access to employment, shopping, or other destinations is not expected to change. There would be no changes to land use. Since SR 70 is an existing roadway in the City of Marysville, the proposed project would not provide additional access to undeveloped areas. Furthermore, no new or expanded infrastructure, housing, or other similar permanent physical changes to the environment would be necessary, as an indirect consequence of the proposed project.

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

A: The build alternatives involve providing 2 through lanes, 2 auxiliary lanes, shoulder widening, standard shoulders and sidewalks, and replacing and lengthening the Marysville and Binney Junction Underpasses to the south and lowering the roadway profile to meet vertical clearance standards.

Widening the highway to accommodate standard shoulders 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 an urban area with limited available undeveloped land, the proposed project would not lead to additional planned growth.

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

A: Project-related growth is not reasonably foreseeable. None of the Build Alternatives would result in changes in accessibility to existing locations. There would be no changes to land use. Project-related growth is not anticipated to occur since the project area is located near geographical restrictions. Since the project would not induce growth, the alternative is constant with Policy HS1.6. *Policy HS1.6 The County would prohibit construction near levees that would adversely affect the integrity of the subject levee or would impede maintenance, inspection, or planned levee expansion.* Based on the above first-cut screening analysis, no additional analysis related to growth is required.

Avoidance, Minimization, and/or Mitigation Measures

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

2.5 Community Character and Cohesion

Regulatory Setting

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

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

Affected Environment

A Community Impact Assessment was conducted May 2020 for the proposed project. The following section describes the community characteristics, population, housing, economic conditions, community facilities, relocations, real property acquisition, and environmental justice characteristics of the project area.

Environmental Consequences

Currently, the neighborhoods existing on either side of SR 70 are currently divided. With the build alternative, although the highway would be wider, the project would in fact enhance community cohesion as the project provides more opportunities for crossing

the highway, including safe crossing for pedestrians, bicyclists, and elderly population with ADA compliant sidewalks. Therefore, there would be no impact to community cohesion.

Avoidance, Minimization, and/or Mitigation Measures

There are no avoidance, minimization, and/or mitigation measures for community cohesion.

2.6 Population and Housing

The following census tracts and block groups are within or intersect the CIA Study Area (Figure 2.4).

- Census Tract 401, Block Group 1, 2, 3, 4, and 5
- Census Tract 402, Block Group 1, 2, 3, 4, 5, 6, and 7

The study area includes two census tracts that surround SR 70 and the environmental study limits (ESL) (Figure 2.5). Census Tracts 401 and 402 surround the greater project area and the City of Marysville. The study area is further broken down to include only those block groups within each census tract that are closest to SR 70. These are the census tract block groups that would experience direct and indirect impacts. There is a total of six census tract block groups, shown in Figure 2.4 the CIA Study Area, they are called Block Groups 1, 2, 3, 4, 5 and 6. For demographic data, the block groups within .25-miles radius study area which were used to gather information on race/ethnicity and income for the surrounding community.

2.7 Regional Population Characteristics

The proposed project is in the northern part of the City of Marysville located in Yuba County. As census data concludes, Non-Hispanic Whites are the largest racial/ethnicity group for the City of Marysville and the study area and make up more than half of the population. The total number for Non-Hispanic White in Marysville is 7,009, the total population of the City is 12,725, making this sub-group 55% of the population in the study area.

Minority populations numbering 5,716 make up the remaining 45% percent of the study area. Total minority populations in the project study area are as follows in order of population largest to smallest: Hispanic or Latino group at 31.8%, Two or More Races at 5.8%, Asian at 3.8%, Black or African American at 3.2%, American Indian or Alaska Native at 0.3%, and other race at 0.1%. and Native Hawaiian or pacific islander at 0.01%. Table 2.3 shows the population, race, and ethnicity data for the City of Marysville, and census tracts and block groups of the study area. Mostly Census Tract's 401 and 402 are divided between SR 70, Census Tract 401 to the west and Census Tract 402 is to the east.

Census Tract 401 – West of SR 70, generally

Census Tract 401 boundary mostly covers properties west of SR 70 near the CIA study area and contains Blocks 1 and 2 entirely and part of Block 5. The population for Census Tract 401 is comprised of over 62% that is Non-Hispanic White. Block Group 5 within Census Tract 401 has the smallest number of Non-Hispanic Whites (38.4%), in regard to the CIA study area, and is comprised of over a 36% Hispanic population, a 14.8% African American population, and a 3.8% Asians 3.8 % population. Block Group 5, however, in Census Tract 401 is further south outside of the direct project impacts area (figure 2.5).

The remaining block groups in Census Tract 401 are Block Groups 1 and 2. Block Group 1 is located northwest of Binney Junction and the UPRR intersection, just outside the City. Block 1 in Census Tract 401 has the largest non-white population, out of the block groups studied, at 78.6%, with sub-group Hispanic or Latino at a population of 15.1%, African American at 5.3%. Block Group 1 in Census Tract 401 has minimal impacts as it is outside the direct project impacts; this block group is located just north, and then west, of Binney Junction heading north of the City limits.

Block Group 2 in Census Tract 401 is in the southwest CIA study area. This block group is within the City of Marysville, west of SR 70 and south of the UPRR. Block Group 2 in Census Tract 401 consists of the following population estimates: Non-Hispanic White 69.9%, Hispanic or Latino at 18.9%, Asian at 3.7%, Two or More Races at 2.9%, and African American at 2.6%. Block Group 2 in Census Tract 401 would be directly impacted by Alternative 2 with the acquisition of several residences and for remaining residences, closer proximity of the RR to their properties. These impacts to Block Group 2 in Census Tract 401, include noise and vibration, and relocation property acquisitions.

See Noise Section, Relocation and Real Property Acquisitions Section, and Environmental Justice Section for more details.

Census Tract 402 – East of SR 70, generally

Census Tract (CT) 402 boundary covers properties east of SR 70, in the CIA project study area. Block Groups in CT 402, population 8,122, has almost double the population compared to Census Tract401, population 4,203. Although, Census Tract 402 has a high percentage of Non-Hispanic White population at 51.1%, they have a higher percentage of Hispanic or Latino population (36.46%), as compared to Census Tract401 (23.51%). Overall, the largest to smallest ethnic groups in population estimates, are the following: non-Hispanic Whites (51%), Hispanic/Latino (36%), Two or more Races (6%, Asians (4.7%), and African Americans (1.56%).

Overall, in the .25-mile buffer depicted in the CIA Study Area (Figure 2.4), Census Tract 401 Block Groups 1 and 2 have the highest percentage of Non-Hispanic Whites followed by Hispanic/Latino. CT 402, Block Group 1 has 58% percent of Non-Hispanic Whites which is the highest percent in the .25-mile buffer. In CT 402, Block Groups 4 and 5 have a higher percentage of minority population of Hispanics/Latino; Block Group

4 has 52%, and Block Group 5 has 54%. Table 2.3 Population, Race, and Ethnicity have more details below.

Table 2.3. Population, Race, and Ethnicity

Area	Total	Non-Hispanic White #	Non-Hispanic White %	Black or African American #	Black or African American %	American Indian/Alaska Native #	American Indian/Alaska Native %	Asian #	Asian %	Native Hawaiian/ Pacific Islander #	Native Hawaiian/ Pacific Islander %	Other Race #	Other Race %	Two or More Races #	Two or More Races %	Hispanic or Latino #	Hispanic or Latino %
City of Marysville	12,725	7,009	55.10%	402	3.20%	35	0.30%	484	3.80%	5	0.00%	14	0.10%	733	5.80%	4,043	31.80%
Yuba County	74,644	42,018	56.30%	2,407	3.20%	721	1.00%	4,700	6.30%	257	0.30%	126	0.20%	3936	5.30%	20,479	27.40%
Census Tract 401	**4,603**	**2,860**	**62.13%**	**275**	**5.97%**	**35**	**0.76%**	**102**	**2.22%**	**5**	**0.11%**	**0**	**0.00%**	**244**	**5.30%**	**1,082**	**23.51%**
Block Group 1	837	658	78.60%	44	5.30%	0	0.00%	9	1.10%	0	0.00%	0	0.00%	0	0.00%	126	15.10%
Block Group 2	545	381	69.90%	14	2.60%	11	2.00%	20	3.70%	0	0.00%	0	0.00%	16	2.90%	103	18.90%
Block Group 3	1,041	620	59.60%	25	2.40%	24	2.30%	24	2.30%	0	0.00%	0	0.00%	111	10.70%	237	22.80%
Block Group 4	1,101	787	71.50%	32	2.90%	0	0.00%	8	0.70%	0	0.00%	0	0.00%	53	4.80%	221	20.10%
Block Group 5	1,079	414	38.40%	160	14.80%	0	0.00%	41	3.80%	5	0.50%	0	0.00%	64	5.90%	395	36.60%
Census Tract 402	**8,122**	**4,149**	**51.10%**	**127**	**1.56%**	**0**	**0%**	**382**	**4.70%**	**0**	**0%**	**14**	**0%**	**489**	**6.02%**	**2,961**	**36.46%**
Block Group 1	734	426	58.00%	34	4.60%	0	0.00%	30	4.10%	0	0.00%	0	0.00%	85	11.60%	159	21.70%
Block Group 2	2,172	1,021	47.00%	82	3.80%	0	0.00%	110	5.10%	0	0.00%	0	0.00%	132	6.10%	827	38.10%
Block Group 3	702	401	57.10%	2	0.30%	0	0.00%	195	27.80%	0	0.00%	0	0.00%	27	3.80%	77	11.00%
Block Group 4	1,112	356	32.00%	0	0.00%	0	0.00%	38	3.40%	0	0.00%	14	1.30%	122	11.00%	582	52.30%
Block Group 5	1,174	483	41.10%	8	0.70%	0	0.00%	9	0.80%	0	0.00%	0	0.00%	36	3.10%	638	54.30%
Block Group 6	1,103	1,079	97.80%	1	0.10%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	23	2.10%	0	0.00%

Block Group 7	1,125	383	34.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00 %	64	5.70%	678	60.30%

Source: U.S. Census Bureau 2020

2.8 Neighborhood/Communities/Community Character

The project vicinity is composed of medium density residential, commercial business, and open space. The project area is adjacent to the Marysville High School, Yuba-Sutter Transit, Marysville Youth Center (MYC), Veteran's Memorial Center, Baseball Backyard, Marysville Veterinary Hospital, Frosty's Grill N' Chill, Colusa Casino Stadium, WAP Towing, Yanez Custom Wheel & Tire Auto, and a business commercial strip located at the southern end of the project ESL. This commercial strip businesses includes The Dollar Tree and El Torero Mexican Kitchen/Meat Market. Ellis Lake is a prominent feature next to the project ESL.

The age group within the study with the lowest percentage is people over 65. The age group with the highest percentage of people in the study area are between the ages of 18 to 64. The age group with the second highest percentage is the under 18 age group. These percentages are consistent also, among the six block groups (highlighted) with the .25-mile buffer. Table 2.4 presents the population and age groups for the study area.

Table 2.4 Population and Age Data for the Study Area

Census Tract 401

Area	Total Population	Under 18	Percentage	18 to 64	Percentage	65 and Over	Percentage
Block Group 1	837	203	24.25%	410	48.98%	224	26.76%
Block Group 2	545	68	12.48%	468	85.87%	9	1.65%
Block Group 3	1,041	227	21.81%	750	72.05%	64	6.15%
Block Group 4	1,101	383	34.79%	603	54.77%	115	10.45%
Block Group 5	1,079	152	14.09%	853	79.05%	74	6.86%

Source: U.S. Census Bureau 2020

Census Tract 402

Area	Total Population	Under 18	Percentage	18 to 64	Percentage	65 and Over	Percentage
Block Group 1	734	173	23.57%	483	65.80%	78	10.63%
Block Group 2	2,172	614	28.27%	1420	65.38%	138	6.35%
Block Group 3	702	80	11.40%	409	58.26%	213	30.34%
Block Group 4	1,112	376	33.81%	635	57.10%	101	9.08%
Block Group 5	1,174	307	26.15%	631	53.75%	236	20.10%
Block Group 6	1,103	537	48.69%	534	48.41%	32	2.90%
Block Group 7	1,125	220	19.56%	808	71.82%	97	8.62%

Source: U.S. Census Bureau 2020

2.9 Housing Characteristics

The land uses within the project vicinity are composed of medium family residences, open space, industrial, and commercial buildings. Ellis Lake is to the south of the project limits, and the Union Pacific Railroad track is within the study area. In general, the study area can be characterized as developed, with ample community resources for residents. The nearest park is Ellis Lake. Two schools, Marysville High School and Marysville Charter Academy for the Arts, are east of the project area.

For the City of Marysville, Yuba County, the housing occupancy rate is generally 85% or higher. This trend is seen in Census Tract 401 and 402. The percentages of occupied units in study area are about the same as compared to the occupancy rates for the greater City of Marysville, Yuba County, and within the project area's .25-mile buffer. Table 2.5, below, presents the housing characteristics in the City of Marysville, Yuba County, and the study area.

Table 2.5 Housing Characteristics

Area	Total Units	Occupied Units	Percentage of Occupied Units	Vacant Units	Percentage of Vacant Units
Yuba County	**28,225**	**25,880**	**91.69%**	**2,345**	**8.31%**
Marysville	**4,781**	**4,404**	**92.11%**	**377**	**7.89%**
Census Tract 401	**1,939**	**1,779**	**91.75%**	**160**	**8.25%**
Block Group 1	372	322	**86.56%**	50	**13.44%**
Block Group 2	341	313	**91.79%**	28	**8.21%**
Block Group 3	448	426	**95.09%**	22	**4.91%**
Block Group 4	397	365	**91.94%**	32	**8.06%**
Block Group 5	381	353	**92.65%**	28	**7.35%**
Census Tract 402	**3,004**	**2,761**	**91.91%**	**243**	**8.09%**
Block Group 1	341	300	**87.98%**	41	**12.02%**
Block Group 2	734	734	**100.00%**	0	**0.00%**
Block Group 3	360	348	**96.67%**	12	**3.33%**
Block Group 4	362	288	**79.56%**	74	**20.44%**
Block Group 5	509	433	**85.07%**	76	**14.93%**
Block Group 6	366	326	**89.07%**	40	**10.93%**
Block Group 7	332	332	**100.00%**	0	**0.00%**

Source: U.S. Census Bureau 2020

Owner and renter occupancy are described here. Census Tract 401 has the largest number of renters occupying housing units. In particular, Census Tract 401 Blocks 2 and 5 have high numbers of renter occupancy in the .25-mile buffer; Block 2 at 97% and Block 5 at 57%. This is due to the large number of apartments located in Block Group 2.

Within Census Tract 402, Block Groups 1, 4, and 5 are the closest to the ESL, and are within the .25-mile buffer. These three block groups also have a higher percentage of rental units compared to the rest of the City. Block Group 5 has the highest number of renter occupancy. Table 2.6 Owner and Renter Occupied, has more details.

Table 2.6 Owner and Renter Occupied

Census Tract 401

Area	Total Unit	Owner Occupied	Renter occupied	Percent Renter Occupied
Block Group 1	322	140	182	57%
Block Group 2	313	9	304	97%
Block Group 3	426	162	264	62%
Block Group 4	365	106	259	71%
Block Group 5	353	47	306	87%

Source: U.S. Census Bureau 2020

Census Tract 402

Area	Total Unit	Owner Occupied	Renter occupied	Percent Renter Occupied
Block Group 1	300	169	131	44%
Block Group 2	734	341	393	54%
Block Group 3	348	214	134	39%
Block Group 4	288	182	106	37%
Block Group 5	433	109	324	75%
Block Group 6	326	96	230	71%
Block Group 7	332	109	223	67%

Source: U.S. Census Bureau 2020

2.10 Economic Conditions - Regional Economy, Employment, and Income

According to data from the American Community Survey, the study area has a total of 1,299 employed community residents. The main job sectors in the City of Marysville for those employed are educational services, and health care and social assistance, which account for 28% of the jobs for this sector. The next largest employment sectors are field workers and retail trade which employ 691 people, totaling 14.5% of those employed. Educational service, health care and social services, field workers, and retail trade employ the most people in Marysville. As mentioned in Chapter 1 and described in Figure 2.4 - CIA Study Area, the six blocks groups that are closest to the study area,

have high percentages of employed people in education services, health care and social assistance, followed by retail trade.

Other business activity in the study area consists of a variety of commercial and local businesses that serve the surrounding residents. There are several businesses including an automotive business (Yanez Custom Wheel & Tire Auto), WAP Towing, several gas stations and restaurants.

To determine the employment and median income characteristics for the study area, data was obtained from the U.S. Bureau's American Community Survey, and results are provided below in Table 2.7 (U.S. Census Bureau 2020). According to the U.S. Census Bureau, the labor force of the City of Marysville number's 5,475.

Several of the census tracts in the study area have high unemployment rates, lower median incomes, and higher percentages of families and people below the poverty line. Census Tract 401 Block Group 2 and 5 within the .25-mile buffer have high percentages of unemployment at 15.9% and 14.9%; These block groups are the closet block groups to the study area. Block Group 5 within Census Tract 401 also has a low median household income of $21,534, however Block Group 2 has a median household income of $47,853. Block Group 1 ($30,000) and 5 ($21,534), coincidentally are below the median household income threshold. The poverty thresholds for 2020 are identified by the U.S. Department of Health and Human Services. The threshold for 2020 for a household of four is $31,275 (U.S. Department of Health and Human Services).

The California Employment Development Department provides the California Labor Market Status and Unemployment Rate Trend and shows the unemployment rate in California to be 3.9%, slightly above the unemployment rate of 3.5% for the United States as a whole.

According to the U.S. Bureau of Labor Statistics, the unemployment rate rose to 4.4 percent in March 2020. The changes in these measures reflect the effects of the coronavirus (COVID-19) and efforts to contain it. All the block groups within Census Tract 401 are above the State of California unemployment percentage. The block groups within Census Tract 402 show median household income above the threshold for a family of four. Generally, most of the block groups have unemployment rates well above state and national averages. Table 2.7 shows Regional and Local Employment details.

Table 2.7 Regional and Local Employment

Area	In Labor Force	Civilian Labor Force Employed	Civilian Labor Force Unemployed	In labor Force Armed Forces	Unemployed Armed Forces Rate	Median Household Income
Yuba County	32,562	27,832	3,057	1,673	9.40%	51,776
City of Marysville	5,475	4,685	673	117	12.30%	46,625

Census Tract 401

Area	In Labor Force	Civilian Labor Force Employed	Civilian Labor Force Unemployed	In labor Force Armed Forces	Unemployed Armed Forces Rate	Median Household Income
Block Group 1	233	218	15	0	6.40%	30,000
Block Group 2	364	278	58	28	15.90%	47,853
Block Group 3	494	443	36	15	7.30%	36,667
Block Group 4	352	254	98	0	27.80%	35,885
Block Group 5	335	285	50	0	14.90%	21,534

Census Tract 402

Area	In Labor Force	Civilian Labor Force Employed	Civilian Labor Force Unemployed	In labor Force Armed Forces	Unemployed Armed Forces Rate	Median Household Income
Block Group 1	375	347	28	0	7.50%	71,773
Block Group 2	1,149	1,007	129	13	11.20%	52,083
Block Group 3	285	266	19	0	6.70%	40,208
Block Group 4	514	454	60	0	11.70%	81,310
Block Group 5	520	492	28	0	5.40%	41,397
Block Group 6	299	238	0	61	0.00%	55,104
Block Group 7	555	403	152	0	27.40%	47,534

Source: U.S. Census Bureau 2020

2.11 Fiscal Condition

The Fiscal Year 2019-20 Adopted Budget for the city of Marysville includes an overall operating budget of approximately $17 million, including $16.09 million in revenues and $17.16 million in expenditures. The increase in expenditures over revenues includes onetime expenses using residual revenues from the prior fiscal year (City of Marysville 2019).

Environmental Consequences

Regional Population Characteristics

No Build Alternative

There would be no changes to regional population characteristics under the No Build Alternative because there would be no highway improvements on this segment of SR 70.

Build Alternatives

Alternative 1 and 2 would reduce maintenance expenditures, improve the inadequate shoulders and vertical clearances, enhance safety and operational improvements, and increase sight distance. The proposed project would require property acquisitions, so some displacement would occur. These displacements would not be enough to cause changes to the regional population due to the relatively small number of relocations required and availability of replacement properties nearby. Build Alternatives would not contribute to substantial changes in the population characteristics of the region and study area. See Relocations and Real Property Acquisition Section for further details.

Neighborhood/Communities/Community Character

No Build Alternative

There would be no changes to neighborhoods or community character under the No Build Alternative because the urban character of the study area would not change.

Build Alternatives

The study area is urban, developed with housing, commercial uses, a public high school, and other businesses and properties. Given the existing community cohesion in the project community and neighborhoods, the project build alternatives would in fact, improve the existing roadway, pedestrian and bicycle network, bring ADA compliancy to facilities for the elderly and handicapped population, provide safe routes to school solutions, accessibility for multi-modal transportation, improved intersections and added signals at intersection for safer crossings.

Except for the minimal linear right of way acquisition to transportation use, land use and zoning designations in the immediate and surrounding area would not change as a

result of the project. It is not anticipated that the proposed project would result in substantial changes to the neighborhoods or community character of the study area.

Temporary construction impacts would occur but would be minimized to the most feasible extent.

Housing Characteristics

No Build Alternative

There would be no changes to housing under the No Build Alternative because the proposed project would not be implemented.

Build Alternatives

The proposed project would not change the urban character of the study area because it would neither alter the zoning within the area, nor provide access to areas that are undeveloped. The affected properties consist of urban residential and commercial businesses, that range in condition from fair to good. The extent of the project improvements would enhance the existing roadway, rather than result in development pressure in the urban setting in which it is located. See Relocations and Real Property Acquisition in for a full discussion of the residential and business acquisitions required as part of the project.

Economic Conditions - Regional Economy, Employment, and Income

No Build Alternative

There would be no changes to economy, employment and/or income with implementation of the no build alternative.

Build Alternatives

There are some businesses located adjacent to the study area which would have immediate impacts. These businesses include an automotive business (Yanez Custom Wheel & Tire Auto), WAP Towing, and portions of the small commercial strip, containing Dollar Tree, and El Torrero Mexican Market. More details of employment industry in Marysville are summarized in Table 2.8 – Marysville Employment by Industry, Relocations and Real Property Acquisition.

Although some businesses would be fully acquired by the project scope, the Relocation Impact Report found that there are plenty of spaces in the City of Marysville for businesses to relocate. These relocation spaces would meet certain criteria of similar property values of businesses needing relocation as a result of the project. Overall, the impacts to employment are minimal. Please see Relocation and Real property Acquisitions, in the following section, for more information.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, or mitigation measures are required. See Relocation and Real Property Acquisition for business measures.

2.12 Relocation and Real Property Acquisition

Regulatory Setting

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

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

Affected Environment

Strips of land from parcels would be acquired on both the west and east sides of SR 70 in the study area under each alternative. Table 4.6 summarizes, by parcel, the temporary construction easement (TCE) and permanent Right of Way (ROW) acquisitions that would occur under Alternatives 1 and Alternative 2. Table 4.7 summarizes, by parcel, the TCE and permanent ROW acquisitions that would occur under Alternative 1 and Alternative 2. The total amount of square footage of ROW/TCE is not yet known.

Table 4.6 Temporary and Permanent Acquisitions for Alternative 1 (by parcel)

Assessor's Parcel Number	Alternative 1 Right of Way Acquisition	Alternative 1 Temporary Construction Easement
009-151-005	Yes	Yes
~~009-151-006~~	~~No~~	~~No~~
009-082-002	Yes	No
009-082-003	Yes	Yes

Assessor's Parcel Number	Alternative 1 Right of Way Acquisition	Alternative 1 Temporary Construction Easement
009-081-010	Yes	No
~~009-081-005~~	~~No Data~~	~~No Data~~
009-081-002	Yes	Yes
009-020-004	Yes	No
009-020-005	Yes	Yes
008-010-009	Yes	Yes
008-010-026	Yes	No
008-010-030	Yes	Yes
008-010-031	Yes	Yes
008-010-020	Yes	Yes
009-151-004	Yes	Yes
~~009-144-001~~	~~No~~	~~No~~
009-152-001	Yes	No
009-076-005	No	Yes
009-076-004	No	Yes
009-076-003	No	Yes
008-010-025	No	Yes
008-010-027	No	Yes
009-300-005	Yes	Yes
009-300-006	Yes	Yes
009-077-003	No	Yes
009-077-005	No	Yes
009-076-006	No	Yes
009-017-007	No	Yes
009-015-009	No	Yes
008-010-036	No	Yes

Assessor's Parcel Number	Alternative 1 Right of Way Acquisition	Alternative 1 Temporary Construction Easement
008-010-028	No	Yes
008-010-032	No	Yes
008-010-006	No	Yes
009-082-004	No	Yes
009-082-001	No	Yes
009-151-002	No	Yes
009-151-007	No	Yes
009-152-003	No	Yes
009-225-002	No	Yes
009-017-002	No	Yes
009-015-004	No	Yes
009-015-001	No	Yes
008-010-033	No	Yes
008-010-002	No	Yes
009-011-004	No	Yes
009-011-005	No	Yes
018-070-005	No	Yes
018-070-007	No	Yes
018-070-013	No	Yes
018-070-008	No	Yes
018-070-009	No	Yes

Table 4.7 Temporary and Permanent Acquisitions for Alternatives 2 (by parcel)

Assessor's Parcel Number	Alternative 2 Right of Way Acquisition	Alternative 2 Temporary Construction Easement
009-151-005	Yes	Yes
009-082-002	Yes	No
009-082-003	Yes	No
009-081-010	Yes	No
~~009-081-005~~	~~No Data~~	~~No Data~~
009-081-002	Yes	Yes
009-020-004	Yes	Yes
009-020-005	Yes	Yes
008-010-009	Yes	Yes
008-010-026	Yes	No
009-016-003	Yes	N0
009-300-006	Yes	Yes
008-010-020	Yes	No
009-151-004	Yes	Yes
009-152-001	Yes	Yes
009-076-005	No	Yes
009-076-004	No	Yes
009-076-003	No	Yes
009-300-005	Yes	Yes
009-017-007	Yes	No
009-017-004	Yes	No
009-017-003	Yes	No
009-015-005	Yes	No
009-015-010	Yes	No

Assessor's Parcel Number	Alternative 2 Right of Way Acquisition	Alternative 2 Temporary Construction Easement
009-015-009	Yes	No
009-015-008	Yes	No
009-013-006	Yes	No
009-013-009	Yes	No
009-077-003	No	Yes
009-077-005	No	Yes
009-077-006	No	Yes
009-076-011	No	Yes
009-017-007	No	Yes
009-015-009	No	Yes
008-010-036	No	Yes
008-010-028	No	Yes
008-010-032	No	Yes
008-010-006	No	Yes
009-082-004	No	Yes
009-082-001	No	Yes
009-151-002	No	Yes
009-151-007	No	Yes
009-152-003	No	Yes
009-225-002	No	Yes
009-017-002	No	Yes
009-015-004	No	Yes
009-015-001	No	Yes
008-010-033	No	Yes
008-010-022	No	Yes
009-011-004	No	Yes
009-011-005	No	Yes
018-070-005	No	Yes

Assessor's Parcel Number	Alternative 2 Right of Way Acquisition	Alternative 2 Temporary Construction Easement
018-070-007	No	Yes
018-070-013	No	Yes
018-070-008	No	Yes
018-070-009	No	Yes

Environmental Consequences

No Build Alternative

There would be no property acquisitions under the No Build Alternative because the proposed project would not be implemented.

An updated September 2024 Relocation Impact Statement (RIS) was completed and found that for Alternative 1 the project would acquire two residential single-family residences and six nonresidential properties, including five commercial properties and one governmental property,. This would result in displacements. Properties permanently impacted by full acquisition are listed below:

Two Residential Properties

- Two single family residences

Six Nonresidential Properties

- Five commercial properties. These commercial properties currently contain a dental office, restaurant, tow yard, commercial building, and concrete lot.
- One governmental property. This currently contains a local transit center.

Alternatives 2

The RIS found that for Alternative 2, 20 residential (including 9 single-family residences and 11 multi-family residences) and 7 non-residential (including 5 commercial properties, 1 government/transportation business, and 1 non-profit), would need to be acquired for the project which would result in displacements. Properties permanently impacted by full acquisition are listed here:

Temporary Construction Easements: 12

- ***20 Residential Properties***

- 11 multi-family residences plus 9 single family residences, totaling 20, located approximately just west of the Marysville UP RR tracks; see project maps for details.

- ***7 Nonresidential Properties***

- Five Commercial Properties: at this time, those nonresidential properties contain a dental office, a restaurant, a tow yard, a commercial building, and one small concrete lot.

- One governmental property. This currently contains a local transit center.

- One non-profit – a local Veterans Hall

Based on market research and according to the August 2024 RIS, there is a sufficient number of single-family residences and commercial properties that are equal to or better than the displacement properties available for rent or purchase for either alternative. Please keep in mind that property availability is fluid and subject to change. Table 4.8 presents detail of these findings. A summary of relocation resources available for non-residential displacees is presented in Table 4.9, while similar relocation resources for residential displacees is presented in 4.10.

Table 4.8 Summary of Residential and Non-Residential Displacement

Alternative	Single-Family Units	Mobile Homes	Multi-Family Units	Residential Displacements (Units/Residents)	Nonresidential Displacements (Type/Employees)
Alternative 1	2	n/a	n/a	6 +/-	5 (commercial/retail) 1 (government/transportation)
Alternative 2	9	n/a	11	60 +/-	5 (commercial/retail) 1 (government/transportation) 1 (non-profit)

Estimate of residents is based on an average of 2.94 residents per unit (2024 Census). Source: California State Department of Finance Demographic Research Unit. Residential displacees were not interviewed nor contacted to complete surveys.

Table 4.9 Summary of Non-Residential Relocation Resources Available

Relocation Resource	For Rent	For Sale	Total Units
Office Complex	8	20	28
Retail	11	6	17
Special Services/Use	1	1	1
Commercial Operation	16	5	21
Industrial/Commercial Properties	4	3	7

Sources: Online listing searches Century21.com, Rofo.com, Loopnet.com and Craigslist.org as of August 27, 2024

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Table 4.10 Summary of Residential Relocation Resources Available

Relocation Resources	For Rent	For Sale	Total Units
Multi-Family Residences	45	15	60
Two-Bedroom Residences	42	68	110
Three-Bedroom Residences	47	167	214
Mobile Homes	2	13	15

Estimate of residents is based on an average of 2.94 residents per unit (2024 Census): Source: California State Department of Finance Demographic Research Unit. Residential displacees were not interviewed nor contacted to complete surveys.

Avoidance, Minimization, and/or Mitigation Measures

Any acquisitions and compensation to property owners would occur consistent with the Uniform Relocation Assistance and Real Property Acquisitions Act of 1970, as amended. In accordance with this act, compensation is provided to eligible recipients for property acquisitions. Relocation assistance payments and counseling will be provided by the transportation agencies to persons and businesses in accordance with the act, as amended, to ensure adequate relocation and a decent, safe, and sanitary home for displaced residents. All eligible displacees will be entitled to moving expenses. All benefits and services will be provided equitably to all residential and business displacees without regard to race, color, religion, age, national origins, and disability, as specified under Title VI of the Civil Rights Act of 1964. All relocation activities would be conducted by the implementing agencies in accordance with the Uniform Act, as amended. Relocation resources will be available to all displacees without discrimination.

At the time of the first written offer to purchase, owner occupants are given a detailed explanation of Caltrans' "Relocation Program and Services." Tenant occupants of properties to be acquired are contacted soon after the first written offer to purchase, and also are given a detailed explanation of Caltrans' "Relocation Program and Services." In accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, Caltrans will provide relocation advisory assistance to any person, business, farm or nonprofit organization displaced as a result of the acquisition of real property for public use.

Additionally, the Nonresidential Relocation Assistance Program (RAP) provides assistance to businesses, farms, and nonprofit organizations in locating suitable replacement properties and reimbursement for certain costs involved with relocation. The RAP will provide current lists of properties offered for sale or rent, suitable for a particular business's specific relocation needs.

2.12 Environmental Justice

2.13 Environmental Justice

Regulatory Setting

All projects involving a federal action (funding, permit, or land) must comply with Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, signed by President William J. Clinton on February 11, 1994. This EO directs federal agencies to take, to the fullest extent practicable and permitted by law, 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. The definition of low income is based on the U.S. Department of Health and Human Services poverty guidelines. For 2020, this was determined to be $31,275 for a family of four.

All considerations under Title VI of the Civil Rights Act of 1964, and related statutes, have also been included in this project. The Department's commitment to upholding the mandates of Title VI is demonstrated by Caltrans' Title VI Policy Statement, signed by the Director and included herein in Appendix B.

Census tract and block groups impacted by the project and meeting the criteria of being located in an area of disproportionately high ethnic minorities or lower income households are referred to as being "environmental justice populations," or "environmental justice communities" as these groups are afforded certain environmental justice protections under EO 12898.

Affected Environment

Analysis of environmental justice impacts can be a two-step process. The first step is determining the presence of protected populations (minority or low-income populations), and, if found to be the case, the second step is determining whether or not the project has a disproportionate adverse impact on those protected populations. According to the guidance provided in *Caltrans Standard Environmental Reference*, *Community Impact Assessment*, environmental justice and equity is determined based on the comparison of impacts on minority and low-income groups to impacts on non-minority or higher income populations. Impacts are considered disproportionate if these impacts are more severe or greater in magnitude for minority and low-income populations. Impacts to populations can include noise, air quality, water quality, hazardous waste, community cohesion, aesthetics, economic vitality, accessibility, safety, and construction activities.

The study area for the environmental justice analysis consists of the census block groups within 0.25-mile of the proposed ROW. Census tract and block groups were used to provide a more detailed look at the area to determine if environmental justice communities are present. To determine if environmental justice communities exist within

the study area, a demographic profile of the study area block groups was developed to identify low-income and minority populations present in the study area.

For the purposes of this analysis, a block group was considered to contain an environmental justice population if:

- The total minority population of the block group is more than 50% of the total population or is substantially higher than the city or county where it is located.

- The proportion of the block group population that is below the federal poverty level exceeds that of the city or county in which it is located.

Demographic data for the study area indicates that there is a proportion of Hispanic or Latino population at 31.8%, which exists within the project study area, and is higher than the Yuba County average at 27.4%. Other minorities in Marysville include African Americans at 3.2% average and Asians at 3.8%, average. Within the .25-mile buffer, Hispanic or Latino, African American, and Asian residents are notably larger than the city or county as a whole; particularly in Census Tract 401, Block Groups 5 and Census Tract 402, Block Groups 1, 4, and 5 (Table 2.3 Population, Race, and Ethnicity).

The average medium household income in Yuba City is $51,776. The average medium household income in the City of Marysville is $46,625; making the medium household income of the general project area less than its county of residence. The median household income in several census tracts is lower than the rest of the city or county and is lower than the U.S. Census–defined poverty level for a household of four and data from the study area indicate that there are some block groups below the poverty threshold.

Given the high percentage of minority populations and low-income populations found in the study area, it is determined that environmental justice populations are present within the study area. Thus, analysis of effects related to environmental justice populations is required subject to the provisions of EO 12898.

Environmental Consequences

No Build Alternatives

The No Build Alternative would not affect environmental justice populations because the proposed project would not be implemented.

Build Alternatives 1 and 2

Minority and low-income groups are present within the study area, so environmental justice populations are considered to be present. Potential effects of a proposed project are typically experienced in the area adjacent to and immediately surrounding the location of the project. Summarized below are the impacts related to air quality, noise,

traffic and transportation, community cohesion, aesthetics, and displacements and relocations on environmental justice populations and the measures designed to avoid or reduce impacts.

Air

Temporary air quality construction impacts may vary during each phase of construction depending on the tasks being completed. Long-term impacts on air quality are not anticipated. Adherence to Caltrans Standard Specifications would reduce air quality impacts. Impacts, if any, would be temporary, and minimization measures are included to reduce these impacts. Build Alternatives 1 and 2 would not result in disproportionately high and adverse effects on environmental justice communities for air quality
.

Noise

Construction – Temporary Effects

As discussed in the Noise Study Report and the Railroad Noise Vibration analyses prepared for the project (California Department of Transportation 2018b), noise from construction activities would result from the operation of heavy construction equipment and arrival and departure of heavy trucks. Construction noise levels will vary on a day-to-day basis during each phase of construction depending on the specific task being completed. These temporary noise impacts would be experienced equally throughout the study area, not just in areas with environmental justice populations. Avoidance and minimization measures and adherence to Caltrans Standard Specifications would reduce temporary noise impacts.

As of October 2024, a revised Noise Study and Railroad Noise Vibration analyses was prepared. Noise related to construction is temporary and would cease once construction is complete. Construction at a given location for each phase of the proposed project would be intermittent and short term, relative to the nearest sensitive receptors. Noise levels from operation of heavy equipment during construction of any project feature may be intermittently perceptible above existing ambient noise levels. However, based on the above analysis, noise levels during construction are not predicted to exceed FTA daytime or nighttime construction noise thresholds at sensitive uses. No avoidance and minimization measures for construction noise are required (ICF 2024, Volk).

Operational – Long Term Effects

Alternative 1

For Alternative 1, no train noise or vibration impacts are anticipated. Based on the above discussion and analysis, Alternative 1 will not cause disproportionately high and adverse effects on any minority or low-income populations in accordance with the provisions of EO 12898. No further environmental justice analysis is required.

Traffic noise impacts are not anticipated as well.

Alternative 2

Train Noise and Vibration

For Alternative 2, long-term train noise and train vibration impacts are anticipated. This is due to alignment of railroad tracks shifting west towards residential neighborhoods which contain environmental justice communities. Train noise and train vibration impacts are anticipated, and avoidance and minimization measures are recommended. However, noise avoidance and minimization measures would have to be “reasonable and feasible”.

Options and examples of noise avoidance and minimization are described and were recommended in the Noise and Vibration Analysis prepared for this project and include constructing noise barriers along the tracks (e.g., sound wall), providing sound insulation on affected properties, installing vibration reducing track support systems on the rails, and providing a buffer zone or vibration easement from adjacent railroad and landowners.

See Noise and Vibration Section for further details on feasibility of the avoidance and minimization options for Alternative 2.

Traffic Noise/Transportation

Future traffic noise levels under design-year build conditions are predicted to approach or exceed the NAC at outdoor areas of frequent human use associated with Activity Category B (residential) and Activity Category C (e.g. cemetery, park, studio, trail, etc.) land uses in the project area. As such, traffic noise impacts are predicted to occur due to operation of this project, and noise abatement must be considered. Noise Abatement Analysis was conducted to see if abatement measures were feasible or not. However, noise abatement would not be feasible for inclusion in this project due to driveway and sidewalk access requirements along B Street. Please see Noise Section for further details.

Construction

Temporary impacts on circulation and access would result from construction activities. Activities requiring partial roadway closures would occur mostly during non-peak commute hours, at night, or on weekends. While the impacts would be experienced by the environmental justice communities adjacent to the project, these temporary construction impacts would affect equally all populations along proposed alignment, not solely or disproportionately impacting environmental justice communities. In addition, the Transportation Management Plan (TMP) would be implemented to address the impacts related to traffic and transportation, thereby reducing potential impacts. Construction of the build alternatives would comply with all appropriate, necessary, and required construction safety measures. Please see the Construction section and TMP in the Appendix H for further details.

Operational Impacts

Both build Alternative's 1 and 2 would benefit a large and diverse population, which includes motorists, residents, and businesses, by improving traffic safety and circulation in the study area. Implementation of the build alternatives would improve the connectivity of the roadway network for all users of the transportation system, including environmental justice populations. New traffic signals at the intersections of 24th/SR 70 and 16th Street/SR 70 would add two new opportunities for pedestrians to cross the highway and include updated ADA compliant sidewalk and pedestrian facilities, as well as updated transit bus stops. In addition, the bicycle network would be improved with a striped Type II shoulder for bicycle uses and would include improved/updated facilities such as directional and safety signage. Construction of the build alternatives would have a beneficial effect on safety and accessibility for all groups and communities in the study area. Therefore, construction and operation of the build alternatives would not result in a disproportionately high and adverse traffic/transportation effects on environmental justice communities.

Community Cohesion

The Build Alternatives would not reduce community cohesion because it would not introduce a barrier that would divide the community, separate residences from community facilities, or result in substantial growth. Access would be maintained at all businesses in the study area. Currently, the neighborhoods existing on either side of SR 70 are divided due to occasional congestion and limited crossing options. With the build alternative, although the highway would be wider, the project would in fact enhance community cohesion as the project provides more opportunities for crossing the highway, including safe crossing for pedestrians, bicyclists, and elderly population with the sidewalk addition and improvements to sidewalks with ADA compliance. Therefore, neither construction nor operation of the build alternatives would result in disproportionately high and adverse effects related to community cohesion on environmental justice communities.

There are some differences in property relocations with Alternative 1 compared to Alternative 2. Alternative 1 would build retaining walls to minimize impacts to the local Community Center and Transit Center facilities. While Alternative 2 would relocate 20 residential properties. With circulation of the Draft Environmental Document and public input the preferred alternative selected to move forward with design and project implementation is Alternative 1. This would mean that the relocation of the community center would occur, instead of the relocation of 20 neighborhood homes. Community cohesion can be subjective. Selecting the preferred alternative as Alternative 1 would be the lesser impact to Environmental Justice communities and community cohesion.

Housing

Alternative 1

Alternative 1 proposes the acquisition of only one single-family residential property. This property is in Block Group 1 Census Tract 402. However, there is more than adequate replacement housing needs available within the project area.

Alternative 2

Alternative 2 proposes the acquisition of 18 residences, including 11 multi-family residences and 7 single family residences. This alternative would particularly directly impact Block Group 2 Census Tract 401, which data shows contains multi-unit, single family, and a majority of low-income rental properties, and qualifies as an environmental justice community. The project will have a potentially significant impact on the environmental justice community with implementation of Alternative 2. According to the Relocation Impact Study, relocation impacts within the project area are noncomplex and adequate relocation resources are available for displacees. All displacees will be treated in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, and the California Relocation Act. However, available properties researched encompass a 20-mile radius which includes cities such as Marysville, Yuba City, Linda, Olivehurst, and Brown's Valley. And although there may be some available properties to relocated individuals and assistance for rent is provided up to 42 months, it is unknown what the ultimate effect of the relocation could be to environmental justice communities. Under the laws of CEQA, the impact is focused on the physical environment, including noise, air quality, visual, economics, cohesion. Therefore, permanently removing 11 multi-family residences and 7 single family residences, would be a potentially significant impact to environmental justice populations and mitigation would be implemented to reduce impacts to less than significant.

Aesthetics

The Build Alternatives 1 and 2 would change the aesthetic character of the study area by introducing aesthetic project elements. The visual changes would be beneficial, as these changes would entail more facilities for bicyclists and pedestrians. Construction of the build alternatives would introduce construction equipment and staging areas that would not be compatible with the existing aesthetic character in the study area; however, the effects would be short-term and limited to the construction period. Therefore, the build alternatives would not result in disproportionately high and adverse effects related to aesthetics on environmental justice communities.

Conclusion

Based on the above discussion and analysis, the build alternatives may potentially cause disproportionately high and adverse effects on any minority or low-income populations in accordance with the provisions of EO 12898.

Avoidance, Minimization, and/or Mitigation Measures

Alternative 1

Minimization measures required for Alternative 1 for businesses and/or residences affected by selection of Alternative 1 will have the following relocation assistance:

Any acquisitions and compensation to property owners would occur consistent with the Uniform Act, as amended. In accordance with this act, compensation is provided to eligible recipients for property acquisitions. Relocation assistance payments and counseling will be provided by the transportation agencies to persons and businesses in accordance with the act, as amended, to ensure adequate relocation and a decent, safe, and sanitary home for displaced residents. All eligible displacees will be entitled to moving expenses. All benefits and services will be provided equitably to all residential and business displacees without regard to race, color, religion, age, national origins, and disability, as specified under Title VI of the Civil Rights Act of 1964. All relocation activities would be conducted by the implementing agencies in accordance with the Uniform Act, as amended. Relocation resources will be available to all displacees without discrimination.

In addition, the Nonresidential Relocation Assistance Program (RAP) provides assistance to businesses, farms, and nonprofit organizations in locating suitable replacement properties and reimbursement for certain costs involved in relocation. The RAP will provide current lists of properties offered for sale or rent, suitable for a particular business's specific relocation needs.

For example, the relocation program allows for up to 42 months of rental assistance, which could be used as a down payment on a home rather than a rental subsidy for 42 months, as it is up to the individual. More information is located in Real Property and Relocation Section.

Mitigation Measures:

Alternative 2

Mitigation measures for Environmental Justice communities potentially affected by Alternative 2 of the proposed project are required:

Any acquisitions and compensation to property owners would occur consistent with the Uniform Act, as amended. In accordance with this act, compensation is provided to eligible recipients for property acquisitions. Relocation assistance payments and counseling will be provided by the transportation agencies to persons and businesses in accordance with the act, as amended, to ensure adequate relocation and a decent, safe, and sanitary home for displaced residents. All eligible displacees will be entitled to moving expenses. All benefits and services will be provided equitably to all residential and business displacees without regard to race, color, religion, age, national origins, and disability, as specified under Title VI of the Civil Rights Act of 1964. All relocation activities would be conducted by the implementing agencies in accordance with the

Uniform Act, as amended. Relocation resources will be available to all displacees without discrimination.

In addition, the Nonresidential Relocation Assistance Program (RAP) provides assistance to businesses, farms, and nonprofit organizations in locating suitable replacement properties and reimbursement for certain costs involved in relocation. The RAP will provide current lists of properties offered for sale or rent, suitable for a particular business's specific relocation needs.

For example, the relocation program allows for up to 42 months of rental assistance, which could be used as a down payment on a home rather than a rental subsidy for 42 months, as it is up to the individual. More information is located in Real Property and Relocation Section.

2.14 Utilities and Emergency Services

Affected Environment

Emergency Services

Police - The City of Marysville Police Department provides police services in the study area. According to the police department, "The Police Department is also staffed with 13 civilian employees, 1 Dispatch/Records Supervisor, 6 Public Safety Dispatchers/ Records Technicians, 1 Animal Care Services Officer, and 1 Parking Enforcement Officer. In addition to the full-time staff, there are 8 part-time members and several volunteers. There are 4 Reserve Dispatchers/ Records Technicians, 1 Administrative Assistant to the Chief, 1 Property and Evidence Technician, 1 Community Service Officer and 1 Records Clerk, 10 Volunteers, and 3 Cadets that all help complete the team." The police department is located at 316 6th Street, approximately 0.8 mile south of the project limits.

Fire Protection Services - The City of Marysville Fire Department provides fire protection and emergency medical services in the study area. The Marysville Fire Department serves the city of Marysville and the unincorporated areas of Hallwood and District 10. The district covers approximately 85 square miles with one fire station, 14 pieces of equipment, 11 full time personnel and 12 reserve members. The Marysville Fire Department is located at 107 9th Street, approximately .5 mile south of the project limit.

Utilities

Existing utilities around project area include overhead telephone/communication lines, underground fiber optics line, underground gas, water, and sewer utilities. Based on the mapping and information provided, the following utility facilities exist within the project location:

- AT&T (Overhead)

- PG&E – Electric
- California Water Service (CWS)
- PG&E – Gas
- City of Marysville – Sewer
- Qwest (Overhead)
- Sprint (Overhead)
- Kinder Morgan

No-Build Alternative

The No-Build Alternative would not affect utilities because the proposed project would not be implemented.

Build Alternatives

Due to the proposed project's design features, there would be utility relocation required for each of the proposed alternatives. 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.

Environmental Consequences

Emergency Services

No Build Alternative

The no build alternative has the potential to affect emergency services. The intersections in the study area can create congestion, and the many contact points between motorists, pedestrians, and bicyclists would remain under the No Build Alternative. These conditions would continue, and likely worsen over time, under the No Build Alternative.

Build Alternatives

The build alternatives would not result in direct impacts on medical facilities or fire or police stations. Lane closures will be limited to nighttime, off peak hours, During construction, only one lane will be closed during overnight hours when volumes are low. Emergency services will provide access at all times. Any required closures would be coordinated with emergency service providers so as not to hinder emergency responses. The build alternatives are not anticipated to adversely affect response time for emergency services associated with fire station or police department personnel.

Traffic lights within the project limits will function normally. During hours when two- way traffic control is in place, flaggers will assist motorist through the intersection, The build alternatives may improve response times of emergency services by improving traffic flow and reducing delay. In addition, the build alternatives are intended to reduce conflicts in the study area, which would result in fewer emergency service calls.

Avoidance and Minimization Measures

In Chapter 1, Project Standard Measures contains avoidance and minimization measures like the project's Traffic Management Plan (TMP) which incorporates emergency services coordination and other traffic operations during construction.

Utilities and services will be coordinated with utility owners to maintain and have very minimal service disruption to customers, if any.

2.15 Traffic and Transportation/Pedestrian and Bicycle Facilities

Regulatory Setting

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

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

Affected Environment

The Project Development Team determined that the appropriate metric to use to analyze traffic impacts pursuant to section 15064.3(b) includes an analysis of VMT/induced demand in addition to LOS analysis. Lead agencies can evaluate induced travel quantitatively by applying the results of existing studies that examine the

magnitude of the increase of VMT resulting for a given increase in lane miles. These studies estimate the percent change in VMT for every percent change in miles to the roadway system. Based on existing studies, the Transportation Analysis Report (Fehr & Peers March 2019) estimated the short-term response for induced travel to range from 1,500 to 9,280 vehicle miles traveled per day, which is a change of 0.03 to 0.15 percent on a regional basis. With the addition of multi-modal transportation alternatives to vehicles, by adding sidewalks, enhancing bike accessibility and connectivity, adding ADA compliancy, and building a complete streets project with active transportation features, this project would have less than significant impact.

Environmental Study Area

Within project limits, the following six intersections, two railroad UPs, and various driveways (not listed) would be impacted.

- 14th St/B St (SR 70) at PM 14.86
- 15th St/B St (SR 70) at PM 14.930
- 16th St/B St (SR 70) at PM 14.995
- 17th St/B St (SR 70) at PM 15.075
- Marysville UP (Bridge No.16-18) / B St (SR 70) at PM 15.108
- 18th St/B St (SR 70) at PM 15.16
- 24th St/B St (SR 70) at PM 15.350
- Binney Junction UP (Bridge No. 16-29) / B St (SR 70) at PM 15.411

Currently, the Marysville UP and Binney Junction UP do not meet the vertical clearance requirements of 15’ per the Highway Design Manual Section 309.2. The current condition of Maryville UP and Binney Junction UP discourages certain goods movement and alternate modes of travel such as walking and bicycling. A high percentage of heavy vehicles use this route, particularly large commercial trucks, for good movement and these large vehicles frequently hit the Marysville Underpass structure due to inadequate vertical clearance.

SR 70 is a primary commuter route between City of Marysville and the Cities of Oroville and Chico that is the parallel alternative to SR 99 and serves as an emergency alternative route for I-80. This route plays an important role in goods movement within the region, particularly with agriculture.

The posted speed limit on B Street (SR 70) is 35 MPH from 14th Street to the north of 24th Street (PM 15.36) where it transitions to 55 mph prior to the Binney Junction UP. A

25-mph school zone exists on B Street (SR 70) from approximately 45' north 16th Street (PM 14.99) to just north of Marysville High School (PM 15.32). A recent Engineer & Traffic Survey was conducted by the District 3 Office of Traffic Safety. The current posted B Street (SR 70) speed limit of 35 MPH is to be updated to 45 MPH from just north of 18th Street to the north side of 24th Street, where it currently transitions to 55 MPH.

Additionally, this project is within the *District 3 State Route 70 Transportation Concept Report* (TCR), dated August 2014, roadway Segments 7 (PM 14.71/15.35; 12th Street to 24th Street) and segment 8 (PM 15.35/25.822; 24th Street to Butte County Line). According to the 2014 TCR, SR 70's segments 7 & 8 are considered part of a focus route corridor that traverses north-south accommodating regional, inter-regional, recreational and commercial truck traffic in addition to serving local traffic within the City of Marysville and surrounding communities. The focus route concept is defined in the TCR. Segment 7 and Segment 8 are described below:

- Segment 7 – The existing facility is classified a 4-lane conventional/2-lane conventional (4C/2C) roadway. This segment is an urbanized area with sidewalk present up to 18th Street. The Build facility concept is 4C/2C with roadway rehabilitation. The ultimate Segment 7 facility type is 2-lane expressway on a new alignment, roadway rehabilitation, adaptive signal control, and Class II bicycle facility.
- Segment 8 – The existing facility is classified a 2C. This segment is considered urbanized and rural area with no sidewalk present. The build facility concept is 2C with passing lanes and bridge replacement. The ultimate Segment 8 facility type is 2-lane expressway on a new alignment/4C, bridge replacement, and Class III bicycle facility.

Traffic Volumes

Existing intersection turning movement traffic counts were collected using MioVision Cameras. The 12-hour counts were collected on 9/27/16 and 9/29/16 from 6:00 AM to 6:00 PM. The AM peak hour is defined as the highest one-hour traffic count between 7:00 AM and 9:00 AM.

The average daily traffic count, obtained from the 2016 All Traffic Volumes on California State Highway System, provided by the Caltrans Census program, is the following:

- 70 YUB, PM 14.87, at 14th Street; Back AADT is 15,300, Ahead AADT is 19,500
- 70 YUB, PM 15.16, at 18th Street; Back AADT is 20,000, Ahead AADT is 19,000
- 70 YUB, PM 15.35, at 24th Street; Back AADT is 18,500, Ahead AADT is 15,500

Traffic Accident History

In recent years, this segment of SR 70 experiences 35% higher fatal injury (F+I) type accidents than the statewide average for a similar facility. Accidents within the study area were queried from the Traffic Accident Surveillance and Analysis System (TASAS)

Table B for a three-year period from January 1, 2014 to December 31, 2016. In the analyzed three-year period, there were 10 total accidents in the study

segment of B Street (SR 70) from PM 14.8 to 15.7. Within the study segment of B Street (SR 70), the actual reported Fatal + Injury accident rates are higher than the statewide average. Out of the 10 reported accidents, 5 were due to unsafe speed as the primary collision factor and 5 were rear-end type accidents. All accidents were reported within approximately 600' north and south of the Marysville Underpass. Typically, truck incidents with Marysville Underpass do not appear to have collision report because they were caused by legal trucks and property damage type incidents.

LOS Criteria

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).

According to the TCR, the SR 70 concept rationale is based on District 3's minimum acceptable Level of Service (LOS) for this area of Marysville which is considered primarily an urban cluster from 12th Street to 24th Street. The minimum acceptable study facilities' LOS is E for Segment 7 (12th Street to 24th Street) and D for Segment 8 (24th Street to county line).

Study Intersections – Existing Operations

The B Street (SR 70) intersections with 16th Street and 24th Street are currently operating at LOS "F" conditions. The existing study corridor was observed and is known to have congestion during and outside the peak commute periods where delays and queueing are known to be significant. Intersections queues outside the study corridor segment (B Street (SR 70) intersections with 9th Street, 10th Street, and 12th Street) spillback to study intersections and roadway segment and causes operational impacts.

Opening Year (2026) Intersection Operations

No Build:

Intersections with 16th Street and 24th Street are projected to operate at AM and PM peak hour LOS "F" conditions under the Year 2026 "No-Build" alternative. Intersections queues outside the study corridor segment (B Street (SR 70) intersections with 9th Street, 10th Street, and 12th Street) are projected to continue to spill back to study intersections and roadway segment and cause operational impacts.

Build Alternatives:

The Year 2026 “No-Build” and “Build” AM and PM peak hour intersection traffic operations are summarized in Tables 2.12 – 2.15. The existing B Street (SR 70) / 24th Street intersection traffic control was assumed under the Year 2026 “No-Build” conditions. It is envisioned that with four through lanes on B Street (SR 70), this intersection would be improved with a traffic signal. CA-MUTCD signal warrants are currently and projected to continue to be met in the Year 2026 conditions. The new intersections are assumed to operate as a 4-phases actuated coordinated signal with protected left turns.

With the Build Alternatives, all study intersections are projected to operate at acceptable Year 2026 AM and PM peak hour LOS conditions.

Table 2.12. Intersection Operation – Year 2026 AM Peak Hour

Intx No.	B St (SR 70) Intx at	Alt	Movement (Delay/Veh (sec))												Overall Intx	
			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Del	LOS
1	12th St	No Build[1]				78.9		34.8		41.8	11.0	42.3	26.3		45.2	D
		Build[1]				125.5		79.9		22.5	13.1	60.6	16.5		55.6	E
2	14th St	No Build[1]	33.9	3.1	8.2	56.2	60.3	4.2	45.1	13.5	3.1	80.7	31.8	6.0	20.8	C
		Build[1]	41.1	4.0	13.7	58.4	67.9	7.3	64.9	5.1	10.9	50.8	20.6	29.5	24.5	C
3	16th St	No Build[2]	**76.1**		26.2				20.2	3.6			3.4	2.7	**76.1** (3.9)	F (A)
		Build[2]	36.3		7.3				14.0	1.4			2.3	2.4	36.3 (2.1)	E (A)
4	17th St	No Build[2]			12.6					3.0			2.1	1.7	12.6 (2.5)	B (A)
		Build[1]	Intersection Does Not Exist													
5	18th St	No Build[1]				76.3		38.7		14.3	7.5	60.1	7.8		21.6	C
		Build[1]				42.9		15.9		8.4	4.6	60.8	6.0		13.2	B
6	24th St	No Build[2]				**98.5**		32.1		0.6	3.0	5.1	0.8		**98.5** (15.2)	F (C)
		Build[1]				46.5		10.4		5.1	3.2	59.1	4.0		11.8	B

Note: [1] = Signal Control, [2] = Side Street Stop Control (SSSC)
For signal control intersections, average intersection delays are reported.
For Side Street Stop Control (SSSC) intersections, worse-case movement and average intersection delays are reported in XX (XX) format.
Bold = Operations below LOS standards.
B St (SR 70) & 24th St is assumed to be signalized by under the Build alternative

Table 2.13. Intersection Operation – Year 2026 PM Peak Hour

Intx No.	B St (SR 70) Intx at	Alt	Movement (Delay/Veh (sec))												Overall Intx	
			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Del	LOS
1	12th St	No Build[1]				94.7		39.9		60.9	41.5	67.5	51.2		61.7	E
		Build[1]				203.1		110.1		36.8	60.3	44.9	25.3		78.7	E
2	14th St	No Build[1]	39.8	38.6	15.5	57.1	51.9	3.9	50.0	18.8	3.0	71.6	56.5	7.6	33.1	C
		Build[1]	43.9	49.9	18.0	56.6	60.2	8.6	45.9	5.6	2.9	64.0	40.4	46.5	32.7	C
3	16th St	No Build[2]	**131.7**		39.0				19.0	5.8			11.2	9.0	**131.7** (8.7)	F (A)
		Build[2]	46.2		7.4				14.9	1.4			2.7	2.5	46.2 (2.3)	E (A)
4	17th St	No Build[2]			25.9					6.0			7.2	6.1	25.9 (6.6)	D (A)
		Build[1]	Intersection Does Not Exist													
5	18th St	No Build[1]				49.4		22.8		15.4	8.9	64.8	9.0		16.0	B
		Build[1]				43.5		10.3		6.1	3.5	57.4	5.6		10.0	A
6	24th St	No Build[2]				**279.3**		144.2		0.8	3.0	6.8	2.2		**279.3**(30.7)	F (D)
		Build[1]				47.4		7.3		5.5	3.4	55.4	3.5		9.8	A

Note: [1] = Signal Control, [2] = Side Street Stop Control (SSSC)
For signal control intersections, average intersection delays are reported.
For Side Street Stop Control (SSSC) intersections, worse-case movement and average intersection delays are reported in XX (XX) format.
Bold = Operations below LOS standards.
B St (SR 70) & 24th St is assumed to be signalized by under the Build alternative

Opening Year (2046) Intersection Operations

No Build:

Intersections at 12th Street, 16th Street, and 17th Street are projected to operate at AM and PM peak hour LOS "F" conditions under Year 2046 "No-Build" alternative. In addition, intersections queues outside the study corridor segment (B Street (SR 70) intersections with 9th Street, 10th Street, and 12th Street) are projected to continue to spill back to study intersections and roadway segment and cause operational impacts.

Build Alternatives:

It is envisioned that B Street (SR 70) / 24th Street intersection would be improved with a traffic signal under both Year 2046 "No-Build" and "Build" alternatives. CA-MUTCD signal warrants are currently and projected to continue to be met, in the Year 2046 conditions. This intersection is assumed to operate as a 4-phases actuated coordinated signal with protected left turns.

Intersections at 12th Street and 17th Street are projected to improve to acceptable Year 2046 LOS, and the remaining study intersections are projected to further improve under the "Build" alternative. In addition, intersection queues spillbacks are projected to reduce, and the southbound arterial is projected to improve to acceptable Year 2046 LOS "E" conditions.

See Tables 9 and 10 for detailed information on Intersection Operations in the Year 2046 AM and PM Peak Hour.

Table 2.14 Intersection Operations – Year 2046 AM Peak Hour

Intx No.	B St (SR 70) Intx at	Alt	Movement (Delay/Veh (sec))												Overall Intx	
			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Del	LOS
1	12th St	No Build[1]				198.5		124.3		83.4	20.6	69.6	82.5		**101.7**	F
		Build[1]				247.2		215.6		47.4	20.5	84.1	25.6		**93.1**	F
2	14th St	No Build[1]	31.1	32.4	10.6	62.8	69.7	3.7	58.4	14.3	3.2	120.1	51.4	10.2	27.6	C
		Build[1]	46.6	46.4	22.3	60.1	56.8	11.0	76.6	6.1	4.1	71.4	39.5	57.0	38.3	D
3	16th St	No Build[2]	**265.9**		141.2				45.4	6.3			10.4	10.3	**265.9** (10.5)	F (B)
		Build[2]	**117.7**		87.2				33.1	1.5			23.0	29.6	**117.7** (14.1)	F (B)
4	17th St	No Build[2]			**61.3**					6.9			7.9	1.7	**61.3** (7.5)	F (A)
		Build[1]	Intersection Does Not Exist													
5	18th St	No Build[1]				203.8		182.2		18.2	9.9	64.1	12.4		48.3	D
		Build[1]				64.5		39.2		13.3	7.2	56.3	15.6		22.8	C
6	24th St	No Build[2]				50.4		13.3		13.3	4.0	62.3	9.8		17.6	B
		Build[1]				60.1		20.0		5.3	3.3	62.8	10.1		16.0	B

Note: [1] = Signal Control, [2] = Side Street Stop Control (SSSC)
For signal control intersections, average intersection delays are reported.
For Side Street Stop Control (SSSC) intersections, worse-case movement and average intersection delays are reported in XX (XX) format.
Bold = Operations below LOS standards.
B St (SR 70) & 24th St is assumed to be signalized by under the Build alternative

Table 2.15 Intersection Operation – Year 2046 PM Peak Hour

Intx No.	B St (SR 70) Intx at	Alt	Movement (Delay/Veh (sec))												Overall Intx	
			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Del	LOS
1	12th St	No Build[1]				121.3		51.9		137.8	43.6	50.3	45.6		**84.9**	F
		Build[1]				374.2		244.2		34.7	66.2	63.5	16.7		**100.4**	F
2	14th St	No Build[1]	59.4	52.9	32.1	55.1	58.6	4.3	134.7	117.0	40.4	136.1	80.4	12.4	75.5	E
		Build[1]	87.4	31.2	59.1	52.7	55.2	17.7	67.6	7.1	4.0	82.3	76.0	77.5	58.8	E
3	16th St	No Build[2]	**596.7**		**281.1**				37.4	27.1			43.0	41.0	**596.7** (39.6)	F (E)
		Build[2]	**189.2**		**164.4**				20.6	1.6			43.4	49.5	**189.2** (27.3)	F (D)
4	17th St	No Build[2]			**73.3**				22.9	18.4			38.1	33.0	**73.3** (26.7)	F (D)
		Build[1]	Intersection Does Not Exist													
5	18th St	No Build[1]				258.6		218.0		22.0	13.6	70.5	34.8		65.6	E
		Build[1]				43.4		15.2		8.7	4.6	49.2	22.0		18.1	B
6	24th St	No Build[2]				204.0		99.8		6.7	3.4	87.0	77.1		53.8	D
		Build[1]				58.0		13.7		3.3	3.6	59.4	7.3		11.7	B

Note: [1] = Signal Control, [2] = Side Street Stop Control (SSSC)

For signal control intersections, average intersection delays are reported.

For Side Street Stop Control (SSSC) intersections, worse-case movement and average intersection delays are reported in XX (XX) format.

Bold = Operations below LOS standards.

B St (SR 70) & 24th St is assumed to be signalized by under the Build alternative

Arterial Network Operations

Arterial Operations - AM and PM Peak Hour

No Build:

Under the “No-Build” alternative, the southbound B Street (SR 70) Year 2026 Speeds and the northbound and southbound Year 2046 speeds are projected to reduce to unacceptable level and operate at LOS “F” conditions.

Build Alternatives:

With the “Build” alternative, the northbound peak hour speeds are projected to improve to acceptable level. The southbound peak hour speeds are projected to improve under the “Build” alternative, but due to queue spillbacks from adjacent intersections (B Street (SR 70) intersections with 9th Street, 10th Street and 12th Street), southbound B Street (SR 70) is projected to continue to operate at unacceptable Year 2046 conditions.

Arterial Network Speed Trends - NB and SB Peak Hour by Intersection

No Build:

Under the “No-Build” alternative, the Year 2026 and Year 2046 northbound and southbound speeds are projected to continue to degrade to significant levels.

Build Alternatives:

The Year 2026 and Year 2046 northbound and southbound AM peak hours speeds are

projected to improve to almost existing conditions under the “Build” alternative. The southbound speeds are projected to improve only slightly due to queue spillbacks from

B Street (SR 70) intersections with 9th Street, 10th Street, and 14th Street under the "Build" alternative.

Transit System

Transit systems in the project area consist of Yuba-Sutter Transit, which is directly in the project area and serves the surrounding community. With Alternative 1, retaining walls are being constructed to minimize impacts to Yuba-Sutter Transit. Yuba-Sutter Transit will experience temporary impacts during construction. See Real Properties and Property Relocation for more information.

Freight System

There are two existing railroad service lines within the project area. The Sacramento Subdivision is an east-west facility, which bisects the City of Marysville, intersects with the Valley Subdivision in the north-south direction at Binney Junction. There are also spur tracks between the two subdivisions that would need to be maintained.

Transportation System/Demand Management

Although Transportation System Management measures alone could not satisfy the purpose and need of the project, the following transportation System Management measures have been incorporated into the project: pedestrian and bicycle enhancements, ADA compliancy, Complete Streets, implementation, increased multi-modal connectivity with new signalized intersections, and Safe Routes to School enhancements, are some of the TSM alternatives proposed for the project.

Access, Circulation, and Parking

SR 70 is one of the primary north-south transportation corridors in Sacramento Valley that traverses through Sutter, Yuba, and Butte Counties. The corridor bisects the city of Marysville. The study segment in the traffic study included B Street (SR 70) extends north from 14th Street (PM 14.8) to 0.1 miles north of Binney Junction Underpass (PM 15.5), within the northern portion of the city of Marysville.

There are no existing bicycle facilities in the study area. Pedestrian facilities in the study area are only available from 14th to 18th Streets, and parking facilities are not provided along SR 70. The available parking is located on the business properties next to the project area. The properties and cross streets along SR 70 can be assessed by making a right or left turn from SR 70, with the exception of the signal light on 18th Street.

Although bicycle facilities are not located within the project area, bicycle activity can be observed at the B Street (SR 70) 16th Street intersection where there is an uncontrolled, but pedestrian activated flash beacon school crossing on the north leg of the intersection. Larger numbers of pedestrian activity can be observed in the study area compared to the rest of the city of Marysville.

Public Transportation

There is public transportation service within the study area. Yuba-Sutter Transit provides bus services in Yuba and Sutter Counties. There are bus stops within the project area. There are four bus stops located between 18th Street and 15th Street, as well as other bus stops throughout the .25-mile buffer study area.

Yuba-Sutter Transit offers scheduled, local fixed route service in Yuba and Sutter Counties. Also, a combination of advance reservation and scheduled services are offered from selected rural cities and communities to the Marysville/Yuba City urban areas where transfers can be made to other services. The transit agency also provides a Sacramento Commuter Express which offers frequent commuter hour services between Marysville/Yuba city and stops in Downtown Sacramento.

Environmental Consequences

Induced Travel

Building new roadways, adding roadway capacity in congested areas, or adding roadway capacity to areas where congestion is expected in the future, generally induces additional vehicle travel. The proposed project located in the City of Marysville, Yuba County, would provide SR 70, 2 through lanes, 2 auxiliary lanes and a middle two-way-left-turn-lane. The build alternatives are 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 concept underlying induced travel 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

Some of these responses are accounted for in the transportation analysis. For example, the Transportation Analysis Report (Fehr & Peers March 2019) evaluated the potential for diversion of traffic from the parallel SR 99 for longer distance trips; such as, between Linda or Olivehurst and Chico.

Applying the California Statewide Travel Demand Model (CSTDM), the four-lane roadway had slightly higher growth than the two-lane version at the Butte/Yuba County line: 1.008 times larger in the northbound direction and 1.005 times larger in the southbound direction. This relative growth factor was then applied to the two-lane forecasts to estimate the four-lane forecasts. The growth factors result in 80 more vehicles per day northbound and 50 more vehicles per day southbound. During the AM and PM peak hours, the through volume in both directions would increase by 5 vehicles per hour.

To estimate the effect of other responses, lead agencies can evaluate induced travel quantitatively by applying the results of existing studies that examine the magnitude of the increase of VMT resulting for a given increase in lane miles. These studies estimate the percent change in VMT for every percent change in miles to the roadway system. The Office of Planning and Research (OPR) Technical Advisory on Evaluating Transportation Impacts in CEQA (December 2018) provides a method to estimate induced travel (VMT) from a roadway capacity increasing project, and notes that the method may not be suitable for rural locations “which are neither congested nor projected to become congested.” Given that the proposed SR 70 Binney Junction Roadway Rehabilitation and Complete Streets Project is not rural and in an urban area, these methods may be suitable.

Providing four lanes on SR 70 would have less GHG emissions than the existing year (2018) – more than 5,000 tons per year lower. Decreases in both scenarios are attributable to planned improvements in fuel efficiency and anticipated changes to alternative fuels (such as electric vehicles). In addition, the Build Alternative would have less GHG emissions than the No-Build. The increase in GHG emissions to the small VMT increase would be offset by the reduction in peak hour GHG emissions due to improved intersection operations and alternative fuel options.

As noted above, induced demand can be influenced by changes in land use development patterns. The project area is urban on the northern edge of the City of Marysville and is restricted to growth by surrounding geographical restrictions like levees and rivers. Yuba county has experienced moderate growth over the last several decades, and most of this growth is concentrated in Marysville. However, the City of Marysville only grew by 5% during the nine-year period and the overall county grew by 8%. Most of this population growth was concentrated within the City of Marysville. Project-related growth is not reasonably foreseeable, as none of the Build Alternatives would result in changes in accessibility to existing locations and there would be no changes to land use. The only direct land use changes would be the incorporation of ROW for project implementation.

Under long-term conditions, the project may influence indirect land use changes consistent with the objectives of the purpose and need statement. Existing and future employer's dependent on reliable travel in the corridor may be more likely to retain or expand businesses at either end of the SR corridor and/or within the urban environment, resulting in higher levels of economic activity. The induced travel estimates above account for this potential economic effect of improving the region's accessibility and travel reliability.

See Climate Change Section and the Energy Section for more analysis of forecasted vehicle miles traveled (VMT) and associated impacts.

Alternatives Comparison Summary

The build and no-build alternatives are compared based on several horizon year (2046) performance measures; namely, the average PM peak hour travel time in both directions, highway operations deficiencies, and intersection operations deficiencies.

Compared to the no-build alternatives, the build alternatives would provide a lower average travel time in both directions; 1.1 minute for the build alternative and 6.1 minutes for the no-build alternatives in the NB direction and 4.6 minutes for the build alternative and 7.5 minutes for the no-build alternatives in the SB direction. Thus, the travel time savings for the build alternatives would be 5 minutes in the NB direction and 2 minutes and 9 seconds in the SB direction.

Access, Circulation, and Parking

No Build

The No Build Alternative would not change the access, circulation, public transportation, or parking in the study area because the proposed project would not be implemented.

As the reports concludes, under the "No Build" Alterative, the B Street (SR 70) intersections at 16th Street and 24th Street are projected to operate as unacceptable in Year 2026 AM and PM peak hour LOS "F" conditions; Furthermore, under the "No-Build" alternative, nearly all study B Street (SR 70) intersections are projected to operate at unacceptable Year 2046 AM and/or PM peak hour LOS "F" conditions; both northbound and southbound queues are projected to spillback to adjacent intersections and block the intersections; and arterial speeds reduce to unacceptable LOS.

Build Alternatives

Under the "Build" alternative, all study intersections and roadway segments are projected to improve to acceptable Year 2026 AM and PM peak hour conditions. In Year 2046 intersection and roadway operations as well as queues are projected to improve significantly but some intersections would continue to operate at unacceptable levels. Intersections' queues outside the study corridor segment (B Street (SR 70) intersections with 9th Street, 10th Street, and 12th Street) are projected to spillback to study

intersections and roadway segment and cause operational deficiencies to study facilities.

Access and circulation are expected to improve because the project would improve the intersections, improve pedestrian and bicycle access, and provide ADA compliance throughout the project.

Although some parking would be affected with the implementation of this project, any proposed parking spots removed would be replaced and/or remediated, the best possible extent, with the proposed project.

What is known at this time, is the project would impact the parking along the small commercial strip which holds Dollar Tree and El Torrerro Carneceria Mexican Meat Market. This commercial strip is located at the northeast corner of the existing 14th Street and SR 70 traffic signal. The removed parking would be rectified by providing similar parking, adjacent to the existing businesses. The commercial strip with the two business, would remain.

Avoidance, Minimization, and/or Mitigation Measures

There are no avoidance, minimization, and/or mitigation measures required. A standard Traffic Management Plan(TMP) is required for all projects.

2.13 Visual/Aesthetics

Regulatory Setting

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

The California Environmental Quality Act (CEQA) establishes that it is the policy of the state to take all action necessary to provide the people of the state “with…enjoyment of *aesthetic*, natural, scenic and historic environmental qualities” (CA Public Resources Code [PRC] Section 21001[b]).

California Streets and Highways Code Section 92.3 directs Caltrans to use drought resistant landscaping and recycled water when feasible and incorporate native wildflowers and native and climate-appropriate vegetation into the planting design when appropriate.

Affected Environment

A Visual Impact Assessment (VIA) was completed August 2024 for this project. The project location and setting provide the context for determining the type and severity of changes to the existing visual environment. The project setting is referred to as the corridor or project corridor, which is defined as the area of land that is visible from, adjacent to, and outside the highway ROW, and is determined by topography, vegetation and viewshed. No part of the project highway component is either eligible or officially a designated scenic highway. The project setting is described here.

Project Setting

State Route (SR) 70 is one of the primary north-south transportation corridors in Sacramento Valley that traverses through Sutter, Yuba and Butte County. The study segment of SR 70 (also referred to as B Street) extends north from 14th Street (PM 14.8) to 0.1 miles north of Binney Junction Underpass (PM 15.7), within the northern portion of the City of Marysville, Yuba county. This segment of SR 70 accommodates regional, interregional, recreational and commercial truck traffic, in addition to, serving local traffic within Marysville and is currently experiences heavy congestion during and outside of the morning and evening peak hours.

The existing east levee north of Binney Junction to Cemetery Road, also known as the Marysville Ring Levee, would be relocated to accommodate the additional roadway width of the proposed project. This levee is part of the State Plan of Flood Control. In addition, the intersections of SR70/East 24th Street and SR70/16th Street would be signalized. SR70 access to and from 17th Street would be removed as part of the Project.

The existing facility is a four-lane conventional highway which transitions to two lanes near 15th Street in Marysville. The location of the project contains several short city blocks, numerous driveways, and signalized intersections. The build facility concept maintains the facility type and capacity. Adjacent to the project location are several businesses, schools, parks, railroad facilities, and drainage facilities that would ultimate be impacted by the proposed project. Building and business facilities are mentioned in the Human Environment Section.

Within the project limits, SR 70 consists of two 12’ lanes with asphalt concrete pavement with 8’ wide shoulders along the traveled ways for the majority of the segment. In addition, the State Route consists of several left turn pockets that feed directly into the building facilities previously stated. The existing pavement along the State Route is in poor condition and continued maintenance is required due to the high traffic demands that this State Route facilitates. The existing Marysville Underpass crosses SR 70 at PM 15.1 providing a narrow roadway width of 13'-6" (10'-6" travelled way with 1' inside shoulder and 2' outside shoulder). This underpass has a vertical clearance of 14'-1" and has a history of vehicles impacting the existing structure which causes temporary road closures for bridge inspection by UPRR. The Binney Junction Underpass crosses SR 70 at PM 15.4 and has a vertical clearance of 14'-8". Both the

Marysville and Binney Junction Underpasses are well below the standard vertical clearance required for UPRR facilities (17'-6").

Existing pedestrian facilities in the project area consists of 4’ to 6’ concrete sidewalks on both sides of SR 70 from 14th Street to the Marysville Underpass. The existing southbound sidewalk at this location has a vegetated landscape feature, separating the sidewalk to the adjacent SR 70. At the Marysville Underpass, the southbound pedestrian facility terminates. Pedestrians continuing northbound are required to cross SR 70 using the crosswalk located at 16th Street and then continue northbound through an existing poorly lit pedestrian tunnel adjacent to SR 70. After the Marysville Underpass, there is an existing 4’ to 6’ sidewalk for northbound pedestrian from the underpass to the entrance of Marysville High School at 18th Street which enters into the high school. The existing sidewalk and curb ramps in the project locations do not meet current ADA Standards.

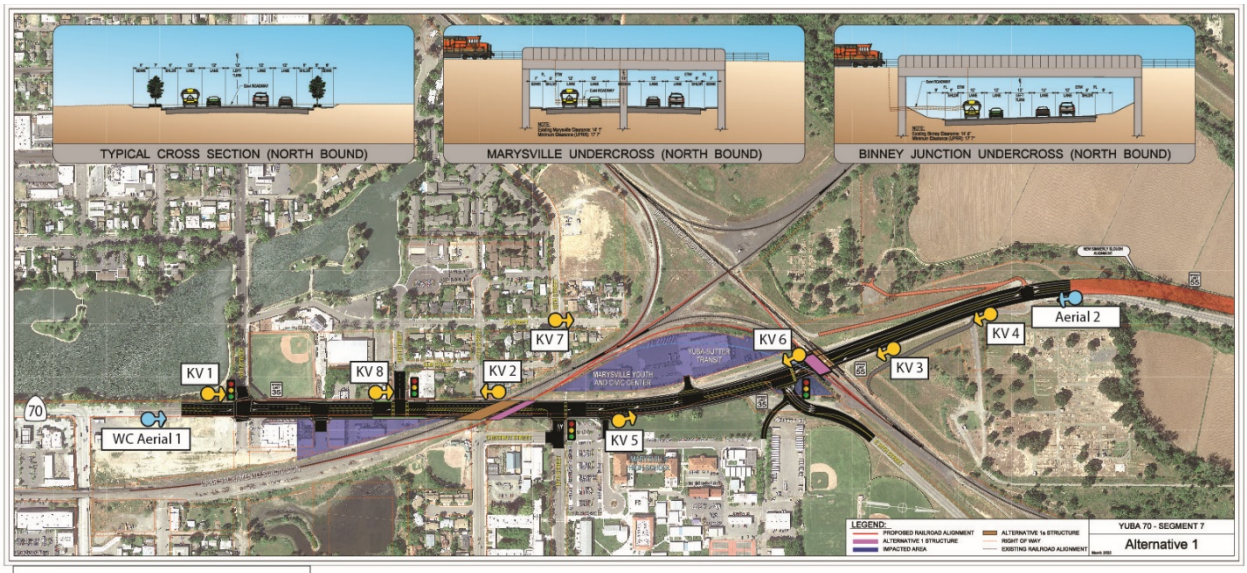
In addition, there are two existing railroad service lines within the project area. The Sacramento Subdivision is an east-west facility, which bisects the City of Marysville, intersects with the Valley Subdivision in the north-south direction at Binney Junction. There are also spur tracks between the two subdivisions that would need to be maintained.

Visual Assessment Units and Key Views

The project corridor was determined to have one visual assessment unit. This segment starts from the SR-70 corridor north of Binney Junction UP to the residential area west of SR-70, south of Binney Junction UP, where visual impacts may occur. The project also has several Key Views (KV) to represent the current design versus the proposed alternatives. These include KV1 through KV8. These key views have been chosen for their representation of SR-70 which they are located in, and those viewers affected. There is also one representative aerial view and shows the realignment and overall impacts to the right-of-way. These are shown in Figures 2.6 and 2.7, and Table 2.16.

Because it is not feasible to analyze all the views in which the proposed project would be seen, it is necessary to select a number of key views associated with visual assessment units that would most clearly demonstrate the change in the project’s visual resources. Key views also represent the viewer groups that have the highest potential to be affected by the project considering exposure and sensitivity. In addition, these key views are analyzed for proposed alternatives.

Figure 2.6. Alternative 1 Key Views



Legend

N

Ground-based Visual Simulation

Aerial Visual Simulation

Base Map: Google Earth

Figure X
Alternative 1
SR-70 Key View Locations

Figure 2.7. Alternative 2 Key Views

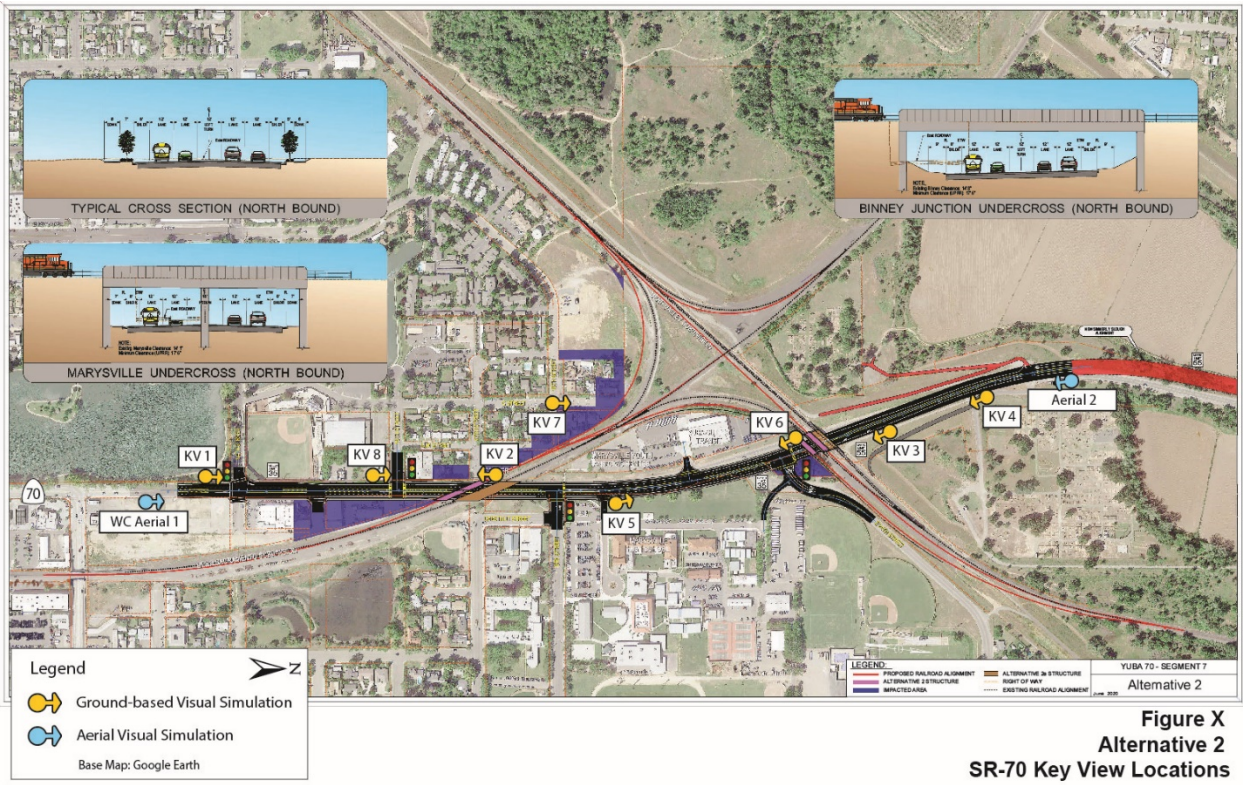


Figure X
Alternative 2
SR-70 Key View Locations

Table 2.16 Ground Key Views

Key View #	Location	View Direction	Alternative
1	Northbound SR- 70, 14th Street intersection, SE corner	North	Same for all
2	Northbound SR-70, 16th Street intersection, SE corner	North	Alt 1 & 2
3	Southbound SR-70, 16th Street intersection, NW corner	South	Same for all
4	Northbound SR-70, East 18th Street intersection, SE corner	South	Alt 1 & 2
5	Northbound SR-70, 240 feet north of East 18th Street intersection, SE corner at High School Entry	North	Alt 1 & 2
6	Northbound bound SR-70, East 24th Street intersection, SE corner	North	Alt 1 & 2
7	Southbound SR-70, 300 feet past Binney Junction Underpass	South	Same for all
8	320’ north of the intersection of 18th Street & C Street	West	Alt 2

Visual Resources

Resource Change is assessed by evaluating the Visual Character and the Visual Quality of the visual resources in the project corridor, before and after the construction of the proposed project. Resource change and viewer response are the two major variables in the equation that determine visual impacts.

With an establishment of the baseline (existing) conditions, a proposed project or other change to the landscape can be systematically evaluated for its degree of impact. The degree of impact depends on both the magnitude of change in the visual resource (i.e., the Visual Character and Quality) and on viewers' responses to and concern about those changes.

The approach for this visual impact assessment is adapted from the FHWA's visual impact assessment system (Federal Highway Administration 1988) in combination with other established visual assessment systems. The visual impact assessment process involves the identification of the following:

- Relevant policies and concerns for the protection of visual resources.
- Visual resources (i.e., the Visual Character and Quality) of the region and the project area.
- Important viewing locations (e.g., roads) and the general visibility of the project area using descriptions and photographs.
- Viewer groups and their sensitivity.
- Potential impacts.

Visual Character

Visual character includes attributes such as form, line, color, and texture, and is used to describe, not evaluate; that is, these attributes are neither considered good nor bad. However, a change in Visual Character can be evaluated when it is compared with the viewer response to that change. Changes in Visual Character can be quantified by identifying how visually compatible a proposed project would be with the existing condition by using Visual Character attributes as an indicator. For this project, the following attributes were considered:

- **Form**—visual mass or shape.
- **Line**—edges or linear definition.
- **Color**—reflective brightness (light, dark) and hue (red, green).
- **Texture**—surface coarseness.
- **Dominance**—position, size, or contrast.
- **Scale**—apparent size as it relates to the surroundings.
- **Diversity**—a variety of visual patterns.

- **Continuity**—uninterrupted flow of form, line, color, or textural pattern.

Visual Quality

Visual quality is evaluated by identifying the vividness, intactness, and unity present in the existing project corridor. Perceived public attitudes about the level of Visual Quality and predictions about how changes to the project corridor can affect these attitudes. This process helps identify specific methods for addressing each visual impact that may occur as a result of the project. The three criteria for evaluating Visual Quality are defined below:

- **Vividness** is the extent to which the landscape is memorable and is associated with distinctive, contrasting, and diverse visual elements.

- **Intactness** is the integrity of visual features in the landscape and the extent to which the existing landscape is free from non-typical visual intrusions.

- **Unity** is the extent to which all visual elements combine to form a coherent, harmonious visual pattern.

Viewers

There are two major types of viewer groups for highway projects: highway neighbors and highway users. Each viewer group has their own level of viewer exposure and viewer sensitivity, resulting in distinct and predictable visual concerns for each group which help to predict their responses to visual changes.

Highway Neighbors (Views to the Road):

Highway neighbors are people who have views to the road. They can be subdivided into different viewer groups by land use. For example, residential, commercial, industrial, retail, institutional, civic, educational, recreational, and agricultural land uses may generate highway neighbors or viewer groups with distinct reasons for being in the corridor and therefore having distinct responses to changes in visual resources. For this project, the following highway neighbors were considered:

- Local residential viewers west of SR-70

- Locals and non-locals patronizing commercial businesses along the SR-70 corridor

- Students, staff, and other viewers at Marysville High School

- Local community viewers using the Youth and Community Center and Yuba-Sutter Transit Center.

Highway Users (Views from the Road):

Highway users are people who have views from the road. They can be subdivided into different viewer groups in two different ways—by mode of travel or by reason for travel. For example, subdividing highway users by mode of travel may yield pedestrians, bicyclists, transit riders, car drivers and passengers, and truck drivers. Dividing highway users or viewer groups by reason for travel creates categories like tourists, commuters, and haulers. It is also possible to use both mode and reason for travel simultaneously, creating a category like *bicycling tourists,* for example. For this project, the following highway users were considered:

- Regional, interregional, and commercial truck traffic, including trucks transporting local agricultural products to market and to processing plants in the region
- Recreational traffic through Yuba County
- Local traffic within Marysville

Viewer Exposure

Viewer exposure is a measure of the viewer's ability to see a particular object. Viewer exposure has three attributes: location, quantity, and duration. *Location* relates to the position of the viewer in relationship to the object being viewed. The closer the viewer is to the object, the more exposure. *Quantity* refers to how many people see the object. The more people who can see an object or the greater frequency an object is seen, the more exposure the object has to viewers. *Duration* refers to how long a viewer is able to keep an object in view. The longer an object can be kept in view, the more exposure. Highway neighbors (local residents and users of commercial, educational, and other facilities along SR-70) would be in close proximity to visual changes resulting from the project. The number of viewers in this viewer group are relatively few. For some highway neighbors, such as residences west of SR-70, the altered views resulting from the project may be visible for a long duration. Therefore, highway neighbors would have Moderate exposure.

Highway users on the SR-70 corridor represent the largest number of viewers who would come into direct visual contact with the proposed project. The posted speed limit for the overall route is 45 miles per hour (mph), with a 25-mph zone in front of Marysville High School. Views of the roadway changes would be apparent along affected segments of the roadway. Duration of views would be relatively short as highway users pass through but may be extended when drivers are stopped at intersections. Highway users' exposure along affected segments of the roadway would be Moderate.

Viewer Sensitivity

Viewer sensitivity is a measure of the viewer's recognition of a particular object. It has three attributes: activity, awareness, and local values. *Activity* relates to the preoccupation of viewers—are they preoccupied, thinking of something else, or are they truly engaged in observing their surroundings. The more they are observing their surroundings, the more sensitivity viewers have of changes to visual resources. *Awareness* relates to the focus of view—the focus is wide and the view general or the focus is narrow and the view specific. The more specific the awareness, the more sensitive a viewer is to change. *Local values* and attitudes also affect viewer sensitivity. If the viewer group values aesthetics in general or if a specific visual resource has been protected by local, state, or national designation, it is likely that viewers would be more sensitive to visible changes. High viewer sensitivity helps predict that viewers would have great concern for any visual change.

Highway neighbors would have Moderate sensitivity to visual changes resulting from the project because, as locals, they are likely to be focused on and aware of the specific views in their surroundings that could be altered by the project. However, existing views do not hold high aesthetic or scenic value for highway neighbors.

Highway users would have Low sensitivity to visual changes resulting from the project. While these viewers would have direct visual contact with the project while travelling through the area, views along the SR-70 corridor in the project area are unremarkable and not scenic and are therefore unlikely to attract the focus and hold aesthetic value for highway users.

Environmental Consequences

There are no scenic vista views or scenic roadways in or near the Project area, so there would be no affect to such resources during operation. Once in operation, the primary visual changes associated with all build alternatives would be regular roadway maintenance activities that pre-exist and are a common visual element. The construction timeframe under Build Alternatives 1A and 2A (versus Alt 1 and 2) would be longer because the construction of 2 railroad crossings (1 temporary and 1 permanent) at 2 locations (Marysville UP and Binney Junction UP) would be required. Light and glare during operation would be the same as discussed under Construction for all build alternatives.

The proposed Project elements constructed under Build Alternative 1, and 2 would not impede sightlines to any visual resources within the Project corridor, such as the distant trees (if/where visible). Changes to visual character and quality would be moderate, and would be consistent with applicable regulations, standards, and policies outlined in guidance documents. The resource change associated with all Build Alternatives would be moderate and the average response of all viewer groups would be moderate-high, resulting in a moderate-high visual impact for this alternative during the short-term. Visual features and measures as part of the project design under all Build Alternatives would ensure the Project impacts are reduced, improving Project aesthetics and resulting in impacts that are moderate over the long-term.

Impacts by Key Views and Alternatives

Because it is not feasible to analyze all the views in which the proposed project would be seen, it is necessary to select a number of key views associated with visual assessment units that would most clearly demonstrate the change in the project's visual resources. Key views also represent the viewer groups that have the highest potential to be affected by the project considering exposure and sensitivity. In addition, these key views are analyzed for proposed alternatives. The following section describes and illustrates visual impacts, compares existing conditions with the proposed alternatives, and includes the predicted viewer response and Resource Change.

Visual changes resulting from the proposed project are depicted in the following simulations:

Figure 2.8 - Aerials



SR-70 Aerial Visual Simulation
Alt 1

Figure 2.9 Aerials



SR-70 Aerial Visual Simulation

Figure 2.10 Key View 1





SR-70 KV1 Visual Simulation

Figure 2.11 Key View 2,





SR-70 KV2 Visual Simulation
Alternate 1

Figure 2.12. Key View 2 – Alt 2



SR-70 KV2 Visual Simulation
Alternate 2

Figure 2.13 Key View 3



SR-70 KV3 Visual Simulation

Figure 2.14 Key View 4



SR-70 KV4 Visual Simulation
Alternative 1



SR-70 KV4 Visual Simulation
Alternative 2

Figure 2.15 Key View 5



SR-70 KV5 Visual Simulation
Alternative 1



SR-70 KV5 Visual Simulation
Alternative 2

Figure 2.16 Key View 6



SR-70 KV6 Visual Simulation
Alternative 1



SR-70 KV6 Visual Simulation
Alternative 2

Figure 2.17 Key View 7



SR-70 KV7 Visual Simulation

Figure 2.18 Key View 8



SR-70 KV8 Visual Simulation

No Build

Under the No Build Alternative, no new construction, roadway widening, and/or interchange improvements would take place within the Project corridor, aside from projects that are currently under construction or funded and approved for construction and operation. As a result, no new visual elements would be introduced, and no resource change would occur under this alternative. There would be no visual impacts on the existing visual character, visual quality, or affected viewer groups. The traffic and hydraulic deficiencies of the existing bridge would persist, and the project purpose and need would not be met.

Build Alternatives

Overall, the proposed project elements constructed under Build Alternative 1 and 2 would not impede sightlines to any visual resources within the project corridor, such as the distant trees (if or where visible). Changes to visual character and quality would be moderate, and would be consistent with applicable regulations, standards, and policies outlined in guidance documents. The resource change associated with all Build Alternatives would be moderate and the average response of all viewer groups would be moderate-high, resulting in a moderate-high visual impact for this alternative during the short-term construction season. This is because the construction season would involve at least two years and would be visible during that time. Temporary visual impacts, during construction impacts are discussed separately in Construction Impacts Section. However, because project construction would take a considerate amount of time, some construction impacts are mentioned in the following long-term operational impacts discussion.

The visual character of the proposed project would be mostly compatible with the existing visual character of the corridor. The project alternatives would result in an expanded roadway corridor. To accommodate this expansion, portions of land along the existing ROW would require to be acquired or modifications to setbacks, driveways and intersections; tree removals and widenings into the school yard, transit center, and other businesses; and the relocation of utility lines and ancillary landscape features such as walls and fences. However, grading would be minimal and would not greatly alter the terrain. Setbacks and relocations would moderately alter views in the area because only some portion of businesses would be affected. The SR 70 corridor would be wider but would retain its form, line, color, and texture in a manner that is consistent with existing conditions. In order to accommodate the expanded ROW, and some acquisitions would require relocations of the residents and businesses currently situated on these properties. These changes would result in impacts on the affected property owners and would moderately alter the visual character of the corridor or lands adjacent to the ROW.

Build Alternative 1

Construction

Alternative 1 would build new permanent RR structures directly adjacent to the existing railroad structures. After construction of these new railroad structures, the railroad trains would be shifted to the newly constructed railroad tracks on a new permanent alignment, permanently relocating, replacing, and lengthening the Marysville UP to the north and Binney Junction UP to the south. Marysville Youth Center (MYC) and the Yuba-Sutter Transit Center (YSTC) would need to be acquired.

Operation

Visual changes resulting from Build Alternative 1 are depicted in the simulations for Key View (KV) 1 through Key View (KV) 7 (Figures 2.10 through 2.17) and Figure 2.6 - Aerial.

The residence and some of the trees, on the corner lot of E 24th and SR-70 at Binney Junction, would be removed under Build Alternative 1 to accommodate construction. The roadway profile of the new UP would be lowered and the roadway approaches would be modified to transition from the new road profile and geometry to the existing roadway.

All businesses, but Dollar General, past 14th street on the east side of SR-70 would be demolished. The road would be widened from 2-3 lanes to 5 lanes. Sidewalk would be widened and relocated, and changes at 16th Street are visible in Key View 2 looking North and KV 3 looking South in Figure 2.13. As shown in the simulation of KV 2 in Figure 2.12, KV 4 Figure 2.14, KV 5 in Figure 2.15, KV 6 in Figure 2.16 and KV 7 in Figure 2.17, the UP's sides would be fully visible and appear more prominent than existing conditions. As shown in KV 5, the Marysville Youth Center and the Yuba-Sutter Transit Center would be demolished. This would affect the visual qualities provided by the buildings, making views more open and brighter when seen from both SR-70 and E 24th Street.

Most notably is the view of Ellis Lake for viewers travelling along B Street in either direction, the Lake is visible on the west side of the highway corridor. The views on the east side of the corridor consist of primarily single-story commercial development that consists of auto parts stores, gas stations and discounted retail establishments.

Additionally, Build Alternative 1 would require the road closure of 17th south of Marysville UP to control travel onto and off SR-70. As shown in Figure 2.16 for KV 6, Build Alternative 1 would also require the complete signalization of the intersection of E 24th Street with SR-70 in order to control travel onto SR-70 and adjacent roadways. Mitigation Measures would reduce negative visual changes associated with the traffic signalization resulting from Build Alternative 1.

The proposed Project elements constructed under Build Alternative 1 would not impede sightlines to visual resources within the Project corridor, such as the distant trees

(if/where visible). Changes to visual character and quality would be moderate, and, as mentioned, would be consistent with applicable regulations, standards, and policies outlined in guidance documents. Mitigation Measures proposed under *All Build Alternatives* would ensure the Project impacts are reduced, improving Project aesthetics and resulting in impacts that are moderate over the long-term.

Alternative 2

Construction

Construction impacts under Alternative 2 would be the same as described above for Alternatives 1. Alternative 2 would build new permanent railroad structures directly adjacent to the existing railroad structures. After construction of these new railroad structures, the railroad trains would be shifted to the newly constructed RR tracks on a new permanent alignment. This alternative proposes to permanently relocate, replace, and lengthen the Marysville and Binney Junction UPs to the south and lower the roadway profile to meet vertical clearance standards. By realigning the railroad tracks, the project would acquire a veteran's hall and some residences. Permanent realignment of UPRR tracks would be required with the relocation of the Marysville and Binney Junction UPs.

Operation

Visual changes resulting from Build Alternative 2 are depicted in the simulations KV 1 through KV 8 (Figures 7 through 14) and Figure 6 - Aerial.

The parcel and some of those trees, on the corner lot of E 24th and SR-70 at Binney Junction, would be removed under Build Alternative 2 to accommodate construction. In addition, tree removal at the high school would remove the canopy and shading that those trees provide. This would remove the aesthetic qualities provided by the impacted trees, affecting the intimate nature of views and making views more open and brighter, slightly increasing glare, when seen from both SR-70 and E 24th Street.

The roadway profile of the new UP would be lowered and the roadway approaches would be modified to transition from the new road profile and geometry to the existing roadway. The new railroad alignment would require the acquisition of the parcels at the end of 18th Street and C Street, which are located next to the raised railroad path.

All businesses past 14th street past the Dollar General on the east side of SR-70 would be demolished. The road would be widened from 2-3 lanes to 5 lanes. Sidewalk would be widened and relocated, and changes at 16th Street are visible in Key View 2 in Figure 8 and Key View 3 in Figure 9. As shown in the simulation of Key View 2 in Figure 8, Key View 4 Figure 10, Key View 5 in Figure 11, Key View 6 in Figure 12 and Key View 7 in Figure 13, the UP's sides would be fully visible and appear more prominent than existing conditions.

As shown in Figures 8, the Veteran's Hall and some residences would be acquired. This would affect the visual qualities provided by the buildings, making views more open and

brighter, slightly increasing glare, when seen from SR-70 and C Street. Additionally, Build Alternative 2 would require the road closure of 17th south of Marysville UP to control travel onto and off SR-70. As shown in Figure 12 for Key View 6, Build Alternative 2 would also require the complete signalization of the intersection of E 24th Street with SR-70 in order to control travel onto SR-70 and adjacent roadways. Therefore, these signals could result in an increase in lighting and that could potentially degrade visual resources associated with the Project corridor if not properly screened. Avoidance and Minimization Measures would reduce negative visual changes associated with the traffic signalization resulting from Build Alternative 2.

The proposed Project elements constructed under Build Alternative 2 would not impede sightlines to any visual resources within the Project corridor, such as the distant trees (if/where visible). Changes to visual character and quality would be moderate, and, as mentioned, would be consistent with applicable regulations, standards, and policies outlined in guidance documents. The resource change associated with Build Alternative 2 would be moderate and the average response of all viewer groups would be moderate-high, resulting in a moderate-high visual impact for this alternative during the short-term. The avoidance and minimization measures proposed under *All Build Alternatives* would ensure the Project impacts are reduced, improving Project aesthetics and resulting in impacts that are moderate over the long-term.

Conclusions

Each of the build alternatives would widen SR-70; widened railroad crossings over SR-70; require the acquisition and demolition of buildings; and require associated vegetation removal. All of these changes would, generally, appear visually similar amongst the alternatives.

Under Alternatives 1, and 2, most of the areas that would be affected by the project widening are businesses; however, the proposed project would not greatly alter the visual character of these areas. Widening would affect landscape features and mature trees and bring the ROW closer to residents, businesses and railroad tracks. Light and glare effects would be minimal. Avoidance, minimization and mitigation measures would protect trees, where possible. Widening this portion of SR-70 would conform to the existing visual conditions outside the project corridor (i.e., elsewhere in the region) where other SR-70 segments have undergone recent widening.

The proposed project would result in moderate visual changes to the project area. With the implementation of the Minimization and Mitigation Measures listed in the above section, the expected Visual Impact would be substantially reduced. The listed measures such as protection of existing trees, revegetation, and the application of aesthetic treatments, and planting of street trees, would visually integrate and enhance the corridor. It would also provide visual continuity that Highway Users would value.

Avoidance, Minimization, and/or Mitigation Measures

The following Minimization Measures will be incorporated into the project as practicable:

- Newly added with this supplemental VIA, minimize the susceptibility of the retaining walls to graffiti by using architectural finish on the wall façades.
- Newly added with this supplemental VIA, increase the visual aesthetics to the retaining walls along SR 70 by using an alternative to the standard safety cable-rails.
- Minimize fugitive light from portable sources used for construction
- Limit construction to daylight hours
- Apply minimum lighting standards and evaluate need for safety lighting
- Comply with Caltrans Highway Design Manual and Standards Specifications. Improvements to the highway are required to comply with the Caltrans Highway Design Manual (HDM), which utilizes Context Sensitive Solutions consistent with Director's Policy DP-22. The Highway Design Manual includes Design Standards 304.1, Side Slope Standards; 304.4, Contour Grading and Slope Rounding; and 902.1, Design Considerations, Aesthetics. In addition, Section 7-1.04, Public Safety, of Caltrans standard specifications requires that temporary illumination be installed in a manner that the illumination and the illumination equipment do not interfere with public safety.
- The areas where trees are present should be protected in such a way as to reduce damage to the trees' root systems. Where it is possible to relocate the trenching for conduit in order to protect the vegetation, this method should be employed. If trees need to be removed, the area should be replanted after the roadway work is completed. • Apply aesthetic design treatments to New Railroad Bridges and Underpasses and use sheen and non-reflective surface materials.
- Apply Aesthetic Treatments to New Road Closure Barrier at 17th Street
- Revegetate Abandoned Railroad Alignment where feasible.
- Apply consistent treatment of sidewalk, curb, median, and crosswalks to provide visual unity and to reinforce the sense of direction and to continue previous SR-20/70 treatments.
- Context Sensitive Solutions should be implemented along the street corridor by implementing ADA standards that are visually pleasing and in keeping with the City of

Marysville's long term goals for their Main Street theme development (refer to photo simulations).

- Street trees should be implemented along the highway corridor's edge where it is feasible or desired. The tree species may be determined by the landscape architect.

During the Design Phase, landscape, planting, and/or architectural treatment plans will be prepared at the discretion of the District Landscape Architect. The following Mitigation Measures will be incorporated into the project:

- Newly added with this supplemental VIA, use an architectural aesthetic finish on the retaining walls for more visually appealing walls.
- Newly added with this supplemental VIA, the removal of trees at the high school frontage shall be replaced in order to minimize the visual effects of their removal.
- Use native grass and wildflower species in erosion control grassland seed mix.
- In order to provide some unity to the streetscape and provide additional context sensitive solutions all support features for traffic lights, streetlights, poles for traffic signs, and aesthetic safety rails shall be painted dark green (AMS Standard 595A color to match previous FED-STD-595 #34092 color).

2.14 Cultural Resources

Regulatory Setting

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

The National Historic Preservation Act (NHPA) of 1966, as amended, sets forth national policy and procedures for historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for listing in the National Register of Historic Places (NRHP). Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties and to allow the Advisory Council on Historic Preservation (ACHP) the opportunity to comment on those undertakings, following regulations issued by the ACHP (36 Code of Federal Regulations [CFR] 800). On January 1, 2014, the First Amended Section 106 Programmatic Agreement (PA) among the Federal Highway Administration (FHWA), the ACHP, the California State Historic Preservation Officer (SHPO), and the Department went into effect for Department projects, both state and local, with FHWA involvement. The PA implements the ACHP’s regulations, 36 CFR 800, streamlining the Section 106 process and delegating certain responsibilities to the Department. The FHWA’s responsibilities under the PA have been assigned to the Department as part of the Surface Transportation Project Delivery Program (23 United States Code [USC] 327).

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

PRC Section 5024 requires state agencies to identify and protect state-owned historical resources that meet the NRHP listing criteria. It further requires the Department to inventory state-owned structures in its rights-of-way. Sections 5024(f) and 5024.5 require state agencies to provide notice to and consult with the State Historic

Preservation Officer (SHPO) before altering, transferring, relocating, or demolishing state-owned historical resources that are listed on or are eligible for inclusion in the NRHP or are registered or eligible for registration as California Historical Landmarks. Procedures for compliance with PRC Section 5024 are outlined in a Memorandum of Understanding (MOU) between the Department and SHPO, effective January 1, 2015. For most Federal-aid projects on the State Highway System, compliance with the Section 106 PA would satisfy the requirements of PRC Section 5024.

The studies for this undertaking were carried out in a manner consistent with Caltrans' regulatory responsibilities under Section 106 of the National Historic Preservation Act (36 CFR Part 800) and pursuant to the January 2014 First Amended Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act (Section 106 PA), as well as under Public Resources Code 5024 and pursuant to the January 2015 Memorandum of Understanding Between the California Department of Transportation and the California State Historic Preservation Office [SHPO] Regarding Compliance with Public Resources Code Section 5024 and Governor's Executive Order W-26-92, addended 2019 (5024 MOU) as applicable. In addition, the project is subject to state historic preservation laws and regulations set forth in the California Environmental Quality Act (PRC§21000 et seq.).

Affected Environment

Cultural resources studies completed for the project include:

- Historical Resources Evaluation Report (HRER) for the State Route 70 Binney Junction Roadway Rehabilitation and Complete Streets Project, prepared by JRP Historical Consulting, LLC (JRP) dated June 2020.
- 03-0H160 Historic Property Survey Report (HPSR), prepared by William E. Larson, June 2020.
- Archaeological Survey Report [ASR] for the State Route 70 Binney Junction Roadway Rehabilitation and Complete Streets Project, Yuba County, CA, prepared by William E. Larson, July 2020.
- Finding of Effects for the State Route 70 Binney Junction Roadway Rehabilitation and Complete Streets Project, Yuba County, CA, prepared by Gail St. John and William E. Larson, October 2020.
- Draft Programmatic Agreement (PA) for the State Route 70 Binney Junction Roadway Rehabilitation and Complete Streets Project, Yuba County, CA, prepared by William E. Larson, November 2020.

- Draft Cultural Resources Management Plan for the State Route 70 Binney Junction Roadway Rehabilitation and Complete Streets Project, Yuba County, CA, prepared by Lisa Bright, November 2020.

- Supplemental Historic Properties Survey Report (HPSR) for the State Route 70 Binney Junction Roadway Rehabilitation and Complete Streets Project, Yuba County, CA, prepared by Sonia Miller and Catherine Davis March 2024.

- Supplemental Archaeological Survey Report (ASR) for the State Route 70 Binney Junction Roadway Rehabilitation and Complete Streets Project, Yuba County, CA, prepared by Catherine Davis, February 2024.

- Supplemental Finding of Effect Document (FOE) for the State Route 70 Binney Junction Roadway Rehabilitation and Complete Streets Project, Yuba County, CA, prepared by Sonia Miller March 2024.

- Environmentally Sensitive Area (ESA) Action Plan for the State Route 70 Binney Junction Roadway Rehabilitation and Complete Streets Project, Yuba County, CA, prepared by Catherine Davis March 2024.

- Supplemental Historic Properties Survey Report (HPSR) for the State Route 70 Binney Junction Roadway Rehabilitation and Complete Streets Project, Yuba County, CA, October 2024.

- Supplemental Archaeological Survey Report (ASR) for the State Route 70 Binney Junction Roadway Rehabilitation and Complete Streets Project, Yuba County, CA, October 2024.

- Supplemental Finding of Effect Document (FOE) for the State Route 70 Binney Junction Roadway Rehabilitation and Complete Streets Project, Yuba County, CA, October 2024.

Built-Environment Resources

Caltrans has identified 18 properties within the Area of Potential Effects (APE). These include properties exempted from evaluation, properties in the project area that are not eligible for listing in the NRHP or significant resources under CEQA, properties eligible for inclusion in the NRHP/CRHR, and properties that that are assumed to be eligible for the NRHP and as historical resources for the purposes of CEQA.

Evaluation Methods

As part of the process to identify historic resources within the APE for the HRER, previous historic resource inventory and evaluation surveys and reports, the NRHP, the CRHR, California Historical Landmarks, California Points of Historic Interest lists, and the Caltrans Historic Bridge Inventory were reviewed. A records search conducted by the North Central Information Center and Caltrans project library on behalf Caltrans District 3, in January 2020 revealed six previous cultural resources surveys have been conducted within the project limits. Additionally, a HRER from another project titled "Historic Resources Evaluation Report for the Proposed Rehabilitation on State Routes 20 and 70 in the City of Marysville, Yuba County, California," prepared in 2011 by Caltrans, and Caltrans historic as-built drawings of SR 70 of the study area, were also consulted. Further background research was also conducted to help identify historic resources requiring recordation and evaluation, as well as to develop general historic and property-specific contexts in order to understand their potential significant associations

The identification effort included research through the Parcel Quest commercial real estate database, review of historic maps and aerials, and other sources to confirm dates of construction of the historic-era resources within the APE. Research for the general historic context included review of the 2011 Caltrans HRER (noted above), previous historic studies in and around Marysville, and various historic books and reports available through digital repositories. Expanded research on the relevant historic themes as well as property specific research for individual resources at various online sources, included: including aerial maps and street view photographs on Google and Bing; historical research such as historic aerials and photographs, to assess the physical conditions and alterations to the properties; Marysville city directories; U.S. census records, and other data available at ancestry.com; *Marysville Appeal Democrat* and *Marysville Yuba Appeal Democrat* at newspaperarchive.com; *Appeal-Democrat*, *Marysville Evening Democrat*, and *Marysville Appeal* at newspapers.com.

On June 2, 2020 Caltrans District 3 performed field survey of built-environment resources within the APE. Photographs were taken and used to develop the property descriptions and assess historic integrity of each resource. These resources were documented on DPR 523 forms and formally evaluated as part of this project which were provided in the Appendix B of the HRER for this project.

APE

The project's APE was developed by Caltrans to encompass the areas that may be directly and indirectly affected by the project. The APE is located at the north end of the city of Marysville, alongside SR 70 between approximately 14th Street at the south end and Cemetery Road at the north end. This part of Marysville includes a mixture of residential, commercial, industrial, and infrastructure properties.

A revised APE was established in March 2024 with concurrence from the State Historic Preservation Officer (SHPO) pursuant to Stipulation I.B. of the project PA. The Supplemental Area of Potential Effects (sAPE) was established to cover all additional project activities that could affect cultural resources not included in the original Area of Potential Effect (sAPE). Caltrans developed the horizontal APE to encompass the limits of all newly proposed construction work and equipment staging areas and included adjacent properties that might be subject to visual, audible, or vibratory effects from construction activities. The horizontal sAPE covers approximately 32 acres, while the vertical sAPE ranges between 6 inches and 50 feet in depth. Caltrans consulted with SHPO pursuant to Stipulation I.B. of the PA) between the Caltrans and the SHPO. The SHPO found the revised APE Map to be adequate on March 5, 2024.

A second revised APE was established in September of 2024. The APE was expanded as a result of additional changes in the project's scope resulting in a larger project footprint. The additional area which the revised scope covers is reflected in the revised APE Map signed September 9, 2024. The revised APE includes Yuba County Assessor Parcel #'s 008010039000 and 009020005000. These parcels have been incorporated due to the planned realignment of East 24th Street which includes permanent right of way acquisition and the addition of 6-foot sidewalks on both sides of the street (requiring TCEs). Additionally, changes in the vertical APE are expected in anticipation of installation of drainage inlets to intercept roadway drainage, Caltrans consulted with SHPO pursuant to Stipulation I.B. of the PA between the Caltrans and the SHPO.

Resources Exempt from Evaluation within the APE

Caltrans has determined that seven (7) properties present within the APE meet the criteria for Section 106 PA/5024 MOU Attachment 4 (Properties Exempt from Evaluation). These properties within the APE that were exempt from evaluation consisted of substantially altered buildings that appear to be more than 30 years old (Property Type 6).

Resources Evaluated within the APE

The 13 properties evaluated in the HRER include buildings constructed between the 1920s and 1960s. In general, the residences are wood-frame structures constructed in the Craftsman Bungalow and Minimal Traditional architectural styles, with one example constructed on the Tudor style. There are also commercial and industrial buildings that consist of a steel-frame or concrete construction and feature mostly utilitarian design features. Several of the buildings feature alterations, such as replacement windows and doors.

Resources Found Eligible Within the APE

Only one (1) of the 13 resources, the Hashimoto House at 1624 B Street, is considered eligible for listing in the NRHP and the CRHR. This property consists of an L-plan Tudor style residence and garage, both of which feature steeply pitched roofs and stucco-over-brick siding. The residence features a cross-gable roof with composition shingles and narrow open eaves. The front (east) side includes a prominent projecting front gable and a partially enclosed entrance porch with archways and a shed roof. Fenestration includes four-over-one double-hung wood-sash windows, often arranged in pairs or groups. An exterior brick chimney is located on the north side and the garage, which has been enlarged and given a gambrel roof, is located on the southwest corner and features a single-car replacement door. Landscaping around the house includes a two-track concrete driveway leading to the garage, short brick and wood picket fence along the east side of the front yard, and three mature trees in the front yard. The boundary of the resource includes the vacant legal parcel to the south, which is used as a yard for occupants of the residence.

In 1937, Heizo and Shizue Hashimoto purchased the Tudor style house, but because Issei (Japanese-born) residents who lacked citizenship could not own property in California, the Hashimotos' five-year-old son Walter was the legal owner. The Hashimoto's ran a general goods store and boarding house in Marysville's Japan town. In 1942, the lives of Marysville's Japanese Americans were upended when the US government removed and incarcerated approximately 110,000 Japanese Americans living on the West Coast due to President Roosevelt signing Executive Order 9066, which authorized the military to remove and incarcerate Japanese Americans. Like many Japanese Americans, the Hashimoto's were confronted with drastic changes by internment. They shuttered their general store, sold everything they could, and were lucky to have been able to arrange to keep their home during their incarceration.

The Hashimoto's were sent to Tule Lake Relocation Center, one of several incarceration camps created by the War Relocation Authority, where they remained until September 1945. Upon release, life for Japanese Americans was difficult, and reestablishing the lives they had created before the war proved challenging. Of the approximately dozen Japanese Americans who owned their residences in Marysville before internment, only a few returned to those homes. For those Japanese Americans who did return to the area, many settled in Yuba City. Heizo and Shizue Hashimoto were among the relatively small number who returned to Marysville, fortunate enough to have kept their house. However, they were out of work and quickly discovered employment for

Japanese Americans was limited. For the first few years, they worked as field laborers, saving money to open a men's clothing store just a block away from their old store's location. However, their success story was not widely replicated, and Marysville's Japanese American community never regained its pre-internment level.

Due these circumstances, the Hashimoto House is considered eligible under NRHP Criterion A and CRHR Criterion 1 for its significant associations within the context of the Japanese American experience of internment during World War II and attempts to reestablish their lives in the aftermath. The house represents an uncommon, but important, aspect of this experience. Namely, it is an example of a house owned by a Japanese American family, the Hashimoto's, before, during, and after their incarceration and used by the family after their release to rebuild their lives and livelihood. It is eligible at the local level of significance with a period of significance of 1942-1950.

Resources Found Ineligible Within the APE

The other 12 of the properties evaluated are considered ineligible for listing in the NRHP or CRHR because they do not have historic significance (i.e., they are not significant for association with important historic events or the lives of persons important to history, or for their architecture/design). SHPO concurrence for these eligibility determinations was received on September 22, 2020.

Built Environment Resources Assumed Eligible within the APE

The previously mentioned Caltrans' archival research revealed the presence of previously documented historical built environment resources within the APE for the proposed project, including the Marysville Ring Levee (P-58-002579); the Southern Pacific Railroad Marysville to Chico line (P-58-001354); the Southern Pacific Railroad Marysville to Oroville line (P-58-001284); and the Western Pacific Railroad Marysville to Oroville line (P-58-001372). Identification efforts in support of the revised APE identified one additional previously documented built environment resource for the purpose of the proposed project, the Marysville High School Campus (P-58-002532).

The following five (5) properties within the APE are considered eligible for inclusion in the NRHP for the purposes of this project only because evaluation was not possible, in accordance with Section 106 PA Stipulation VIII.C.4.

- The Southern Pacific Railroad Marysville to Chico line is a single-track, standard-gauge railroad alignment that generally follows a southeast to northwest trajectory through the APE for this project. Through most of the City of Marysville, the railroad is elevated on a berm. It crosses SR 70 on the Marysville Underpass (Bridge No. 16 0018, SR 70 PM 15.11), which is assumed to be a contributing feature of this railroad. The railroad crosses the Western Pacific Railroad Marysville to Oroville line at a near-perpendicular angle in the northwest end of the APE. Three connecting spur lines link these two railroads, one of which crosses SR 70 on the Binney Junction

Underpass (Bridge No. 16 0026, SR 70 PM 15.41), which is also considered a contributing feature of this railroad.

- Western Pacific Railroad Marysville to Oroville line passes through the north end of the APE for this project along a southwest to northeast alignment. Within the APE, this single-track, standard-gauge railroad runs along the top of the Marysville Ring Levee. The railroad crosses SR 70 on the Binney Junction Underpass (Bridge No. 16 0026, SR 70 PM 15.41), which is assumed to be a contributing feature of this railroad.

- Southern Pacific Railroad Marysville to Oroville line is the alignment of a mostly abandoned railroad that connected Marysville with Oroville. Within the APE for this project, the railroad berm has mostly been subsumed by modern development, including the realignment of SR 70 and the construction of the railroad spur connecting the Southern Pacific Railroad Marysville to Chico line with the Western Pacific Railroad Marysville to Oroville line. The berm is present at the northeast end of the APE, where it runs parallel to and southeast of the Marysville Ring Levee. Previous documentation of the resource measured the berm to be approximately 13.5 feet wide at the top and 20 feet wide at the bottom. The height of the berm varies. At this location, all tracks, ties, and other associated features have been removed.

- The Marysville Ring Levee is an approximately seven-mile-long earthen levee that surrounds the whole City of Marysville. The levee varies in height and width, but the levee crown measures between about 10 and 20 feet wide, and the levee base measures approximately 100 to 160 feet in width. The height is approximately 20 feet above the surrounding grade. The Marysville Ring Levee crosses through the north end of the APE for this project along a southwest-northeast alignment. At this location, the levee carries the Western Pacific Railroad Marysville to Oroville line. Within the project APE the finger levee flanks both sides of the highway north of the Binney Junction Underpass until about Cemetery Road.
- The Marysville High School Campus consists of two historic structures, the old high school and the old high school auditorium. The massive two-story brick building is in the Romanesque rival style. The high school is located on Yuba County Assessor Parcel #'s 008010039000 and 009020005000. Parcel 009020005000 is located within the scope of the proposed project. The high school encompasses both Parcel #'s 008010039000 and 009020005000 and therefore both parcels have been incorporated into the project APE.

Archaeological Resources Identified in the APE

The cultural resource inventory of the project area resulted in one archaeological resource within the project's APE; additionally, archival research identified the potential for buried, historic era, archaeological resources to exist within the APE. Because a complete inventory of the project area could not be completed due to restricted access

(i.e. paved roadways) major phasing with an associated project PA and Cultural Resources Management Plan were produced with SHPO concurrence.inc

Identification Methods

Caltrans archaeologists conducted an archaeological inventory of the project's APE between March 2017 and February 2020. The inventory effort consisted of: a literature and records research at the North Central Information Center; consultation with the Native American Heritage Commission, as well as with local Indian tribes/individuals; consultation with local historic societies; examination of local historic maps and plans, and a pedestrian field survey of the APE conducted by a professional archaeologist meeting the Secretary of Interior's qualification standards and review of the results of a geophysical survey conducted as part of the Simmerly Slough project.

A supplemental intensive level pedestrian was conducted January 25th, 2024, by Caltrans archaeologist Brian Denham, PQS Co-PI Prehistoric and Historic archaeology. All locations of the supplemental APE were surveyed in 5 meter transects. Supplemental efforts included an additional inventory effort including a literature and records research of North Central Information Center records; consultation with the Native American Heritage Commission, as well as with local Indian tribes/individuals; consultation with local historic societies; examination of local historic maps and plans, in addition to the pedestrian field survey of the APE. A supplemental inventory search was also completed in August and September of 2024. The inventory effort consisted of a literature and records research of the North Central Information Center data, consultation with the Native American Heritage Commission, as well as with local Indian tribes/individuals, consultation with local historic societies, examination of local historic maps and plans, and a pedestrian field survey of the revised APE.

Archeological Resources Assumed Eligible within the APE

The March 2024 supplemental investigation resulted in one (1) archaeological resource identified within the APE. The historic Marysville Cemetery and the Jewish Cemetery are located adjacent to the project and have been incorporated in the APE.

The following archaeological site within the [revised] APE is considered eligible for inclusion in the NRHP for the purposes of this project only because they will be protected in their entirety from any potential effects through the establishment of an Environmentally Sensitive Area (ESA), in accordance with Section 106 PA Stipulation VIII.C.3. The additional scope of work will not impact any previously recorded cultural resources. The Marysville Old City Cemetery (P-58-002534), c.a. 1850. The cemetery consists of the Old Marysville Cemetery and a privately owned Cemetery established in 1855 by the Hebrew Benevolent Society. The Magnes Museum was granted trusteeship of the Cemetery in 1994 and restoration of the cemetery has been ongoing. The Jewish Cemetery lies within the site boundaries of P-58-002534 which encompasses both the City Cemetery and the Jewish Cemetery. While historic

records depict the Jewish cemetery enclosed with a brick wall and containing a brick building, these are no longer standing. The entire cemetery site is surrounded by chain link fence. The Jewish cemetery entrance, accessed through the larger Marysville Cemetery, is framed by large brick pillars constructed from local bricks dating back to 1850, with gates purchased from the Colma Cemetery, a Jewish cemetery in San Francisco.

Consulting Parties and Public Participation

Caltrans contacted the following agencies, organizations, groups, or individuals:

Native American/Tribal Organizations

- Native American Heritage Commission Letter sent to request a search of the sacred land files for the project area in January 2019 (negative results). Received a list of individuals and organizations in the Native American community that may be able to provide information about unrecorded sites in the project vicinity (please see below).
- Native American Tribes, Groups, and Individuals Letters were sent to the Native American individuals and organizations listed below on February 12, 2019, and Caltrans staff made follow-up phone calls and e-mails on March 15, 2019.
    - Estom Yumeka Maidu Tribe of the Enterprise Rancheria
    - KonKow Valley Band of Maidu
    - Mooretown Rancheria of Maidu Indians
    - Strawberry Valley Rancheria
    - Tsi Akim Maidu
    - United Auburn Indian Community of the Auburn Rancheria (UAIC)

Responses were received from the Estom Yumeka Maidu Tribe of the Enterprise Rancheria on March 19, 2019, and UAIC on March 22, 2019. Reno Franklin, of the Estom Yumeka Maidu Tribe of the Enterprise Rancheria requested a meeting to discuss the project but did not respond again to several follow up emails or phone calls to schedule the meeting over a four-month period. The only other response was from the United Auburn Indian Community of the Auburn Rancheria. This project was discussed multiple times over a 12 month period, and UAIC did not express any specific concerns regarding this project and location.

- Supplemental Consultation continued with tribal entities that had initially expressed concern for the project's activities: The United Auburn Indian Community (UAIC) and the Estom Yumeka Maidu Tribe of Enterprise Rancheria. On February 6, 2024, Caltrans District 3 Native American Coordinator Katherine Jorgensen submitted the supplemental project scope and mapping documents to UAIC.

- Supplemental Consultation efforts with local tribes has resulted in the request for monitoring of the levee work by the Estom Yumeka Maidu Tribe of Enterprise Rancheria.

Local Historical Society/Historic Preservation Groups

Letters were sent to the following organizations on March 11, 2020.

- Mary Aaron Memorial Museum, Marysville, CA
- City of Marysville Planning and Historic Preservation Commission
- Yuba Historical Society
- Yuba County Library, Local History Archives
- Kathy Sedler, Yuba Roots Organization
- California State Railroad Museum

  No responses were received from the City of Marysville or the historical societies contacted. Follow-up emails were sent to these organizations on April 17, 2020, and no responses were received. A communications log and copy of correspondence with these entities is included within the technical report.

  Notifications regarding the supplemental scope of work were sent to the Yuba County Historical Society, Friends for the Preservation of Yuba County History, and the Mary Aaron Museum.

  On February 6, 2024, Vickie Tudor of the Friends for the Preservation of Yuba County History responded that she would forward the notification to other organization members and the Marysville Cemetery Commission for their consideration. Follow-up emails were sent on February 21, 2024, to the other potentially interested parties but no further responses have been received to date. In emails dated February 21 and 23, 2024, Vickie Tudor of the Friends for the Preservation of Yuba County History expressed concerns regarding access to the cemetery during construction and the potential relocation of the cemetery sign. These concerns were addressed by Ms. Jorgensen in an email dated March 4, 2024.

All consultation is ongoing and remains open for the life of the project.

Agency Consultation

Caltrans received concurrence from the SHPO on the finding of No Adverse Effect for built environment resources in November 2020, and in December 2020 on the project-specific Programmatic Agreement and CRMP to phase identification, evaluation, and treatment of previously unknown archaeological resources should any be identified during construction. On May 2, 2024 Caltrans received concurrence on the first supplemental finding of effect. This undertaking is not located on Tribal Lands.

Environmental Consequences

No Build Alternative

The No Build Alternative would not affect Cultural Resources because the proposed project would not be constructed.

Built-Environment Resources

Caltrans, pursuant to Section 106 PA Stipulation IX.B, has determined that there are historic properties within the APE that may be affected by the undertaking. **I**n accordance with Section 106 PA Stipulation X, Caltrans determined that the project would No Adverse Effect on built environment resources in the APE and received concurrence with this finding from SHPO on November 19, 2020..

Archaeological Resources

Due to the previously described access issues, identification of possible subsurface, historic-era, archaeological features would need to be completed during construction of the proposed project, so identification, evaluation, and assessment effects is on-going. In accordance with Section 106 PA Stipulation XII, Caltrans has consulted with CSO and the SHPO and has executed a project-specific Programmatic Agreement and Cultural Resources Management Plan (CRMP), which outlines methods for the treatment of previously unknown archaeological resources should any be identified during construction.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization and/or mitigation measures are required for built environment resources. The project-specific Programmatic Agreement and CRMP contains contain stipulations to address avoidance, minimization, and/or mitigation measures for eligible archaeological resources within the project APE, if necessary.

Discovery Protocol

If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area would be diverted until a qualified

archaeologist can assess the nature and significance of the find. Additionally, although no indications of human remains were identified on the surface, subsurface human remains may become evident during construction activities.

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 would notify the Native American Heritage Commission (NAHC), who, pursuant to PRC Section 5097.98, would then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains would contact William Larson, Caltrans District 3 Archaeologist, 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.

Section 4(f) Resources

There are five historic properties either eligible for listing, assumed eligible for listing for the purposes of the undertaking, or listed in the NHRP within the project APE that are protected under Section 4 (f). These properties include: the Marysville Ring Levee (P-58-002579; MR 4), the Hashimoto House, and three railroad lines segments. The railroad line segments are Southern Pacific Railroad Marysville to Chico (P-58-001354; MR 1), Western Pacific Railroad Marysville to Oroville (P-58-001372; MR 2), and Southern Pacific Railroad Marysville to Oroville (P-58-001284; MR 3).

Application of Section 4(f) to Historic Rail Lines

Caltrans intends to apply the Section 4(f) exception for the rail lines, provided by regulation which allows for the use of historic transportation facilities in certain circumstances. The regulatory exemption is provided under Exception 23 CFR 774.13(a)(3).

The regulation, in full, reads as follows:

(a) The use of historic transportation facilities in certain circumstances:

(1) Common post-1945 concrete or steel bridges and culverts that are exempt from individual review under 54 U.S.C. 306108.

(2) Improvement of railroad or rail transit lines that are in use or were historically used for the transportation of goods or passengers, including, but not limited to, maintenance, preservation, rehabilitation, operation, modernization, reconstruction, and replacement of railroad or rail transit line elements, except for:

(i) Stations;

(ii) Bridges or tunnels on railroad lines that have been abandoned, or transit lines not in use, over which regular service has never operated, and that have not been railbanked or otherwise reserved for the transportation of goods or passengers; and

(iii) Historic sites unrelated to the railroad or rail transit lines.

(3) Maintenance, preservation, rehabilitation, operation, modernization, **reconstruction,** or replacement of historic transportation facilities, if the Administration concludes, as a result of the consultation under 36 CFR 800.5, that:

(i) Such work **would not adversely affect** the historic qualities of the facility that caused it to be on or eligible for the National Register, or this work achieves compliance with Section 106 through a program alternative under 36 CFR 800.14; **and**

(ii) **The official(s) with jurisdiction** over the Section 4(f) resource have not objected to the Administration conclusion that the proposed work does not adversely affect the historic qualities of the facility that caused it to be on or eligible for the National Register, or the Administration concludes this work achieves compliance with 54 U.S.C. 306108 (Section 106) through a program alternative under 36 CFR 800.14.

Caltrans intends to apply exception 23 CFR 774.13(a)(3) because project activities would reconstruct the rail lines which are historic transportation facilities. Under this regulation, as described above, there are two criteria which must be met; (1) project impacts would not adversely affect the historic resource and (2) the official with jurisdiction does not object to application of the exception. Caltrans would inform the SHPO that it intends to apply the Section 4(f) exception during the Section 106 consultation process. Through the Section 106 coordination process with the SHPO, Caltrans anticipates concurrence with a "No Adverse Effect" finding. The SHPO concurrence with Caltrans Section 106 finding would serve as documentation that the SHPO does not object to Caltrans application of the exception. Thus, Caltrans anticipates that the provisions of Section 4 (f) would not apply to the historic rail lines.

Application of Section 4(f) to the Marysville Ring Levee

Caltrans intends to apply the temporary occupancy exemption provided under [(23 CFR 774.13(d)]. There are five conditions that must be met in order to apply this exemption. They are as follows:

- Duration must be temporary, i.e., less than the time needed for construction of the project, and there should be no change in ownership of the land. The duration of the construction activities on the levee would be less than the project construction as a whole. There would be no change in ownership of the land.

- Scope of the work must be minor, i.e., both the nature and the magnitude of the changes to the Section 4(f) property are minimal.

- The levee resource is approximately 7 miles long. Alteration of the levee segment is small in nature and magnitude and Caltrans anticipates that the State Historic Preservation Office (SHPO) would concur with Caltrans " No Adverse Effect" finding.

- There are no anticipated permanent adverse physical impacts, nor would there be interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis.
-
  - The relocation of a small segment of the levee, Caltrans anticipates SHPO concurrence with a "No Adverse Effect" finding related to the alteration of the small segment of the Levee. Thus, there would be no interference with the protected features, or attributes of the property, on either a temporary or permanent basis.

- The land being used must be fully restored, i.e., the property must be returned to a condition which is at least as good as that which existed prior to the project.

  - The project scope provides that the segment of altered levee would be returned to a condition that is at least as good as that which existed prior to the project.

- There must be documented agreement of the official(s) with jurisdiction over the Section 4(f) resource regarding the above conditions.

  Through the Section 106 coordination process with the SHPO, Caltrans has informed the SHPO that Caltrans intends to apply Temporary Occupancy exception during the consultation process. The SHPO concurrence with Caltrans Section 106 finding would serve as documentation that the SHPO agrees with Caltrans determination that Temporary Occupancy criteria apply.

Application of Section 4(f) to the Hashimoto House

Caltrans intends to apply temporary occupancy exemption provided under [(23 CFR 774.13(d)]. There are five conditions that must be met in order to apply this exemption.

They are as follows:

- Duration must be temporary, i.e., less than the time needed for construction of the project, and there should be no change in ownership of the land.

  - The vertical profile of SR 70 fronting the Hashimoto House would be lowered as part of the project to increase the clearance under the railroad undercrossing. To accommodate this

work, a temporary construction easement (TCE) of a portion (1,883 sq ft) of the Hashimoto property is required. The duration of construction activities within the TCE would be less than the project construction as a whole. There would be no change in ownership of the land.

- Scope of the work must be minor, i.e., both the nature and the magnitude of the changes to the Section 4(f) property are minimal.

  - Since SR 70 would be lowered as part of the project scope, the existing driveway access to the Hashimoto House would be impacted, which would eliminate access to the existing garage . As part of the right-of-way process, Caltrans is required to compensate the owner for this loss of use. Because this resource was determined eligible for its association with important events in history and not because of the architectural design of the buildings, Caltrans has determined that the proposed project will have "No Adverse Effect" on the resource and received SHPO concurrence with this finding on November 19, 2020. Thus, the nature and magnitude of the changes to the Section 4(f) property would be minimal.

- There are no anticipated permanent adverse physical impacts, nor would there be interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis.

  - Caltrans received concurrence with a "No Adverse Effect" finding related to the relocation of the driveway and garage of the Hashimoto House. Thus, there would be no interference with the protected features, or attributes of the property, on either a temporary or permanent basis.

- The land being used must be fully restored, i.e., the property must be returned to a condition which is at least as good as that which existed prior to the project.
- As part of the right-of-way process, Caltrans is required to compensate the owner for this loss of use (e.g., provide funding to construct a new garage and driveway elsewhere on the owner's land). In this way, the property would be fully restored to its preconstruction condition or better. There must be documented agreement of the official(s) with jurisdiction over the Section 4(f) resource regarding the above conditions.

  Through the Section 106 coordination process with the SHPO, Caltrans has informed the SHPO that Caltrans intends to apply Temporary Occupancy exception during the consultation process. The SHPO concurred with Caltrans Section 106 finding of "No Adverse Effect" in November 2020, which serves as documentation that the SHPO does not object to Caltrans determination that Temporary Occupancy criteria apply.

2.15 Physical Environment

2.16 Hydrology and Floodplain

Regulatory Setting

Executive Order (EO) 11988 (Floodplain Management) directs all federal agencies to refrain from conducting, supporting, or allowing actions in floodplains unless it is the only practicable alternative. The Federal Highway Administration (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.”

Affected Environment

A Section 408 Permit Hydraulic Study was conducted May 19, 2020 by Wood Rodgers, Inc., for this project. Additionally, a Caltrans District 03 Technical Information for Location Hydraulic Study and a Caltrans District 03 Floodplain Evaluation Rt Summary Form, was conducted September 2020 for this project.

Hydrology

At the project location, SR 70 crosses the Marysville Ring Levee, which is maintained by the Marysville Levee District, it is located on the north end of the project just north of Binney Junction and west of the Marysville Cemetery. This levee is part of the

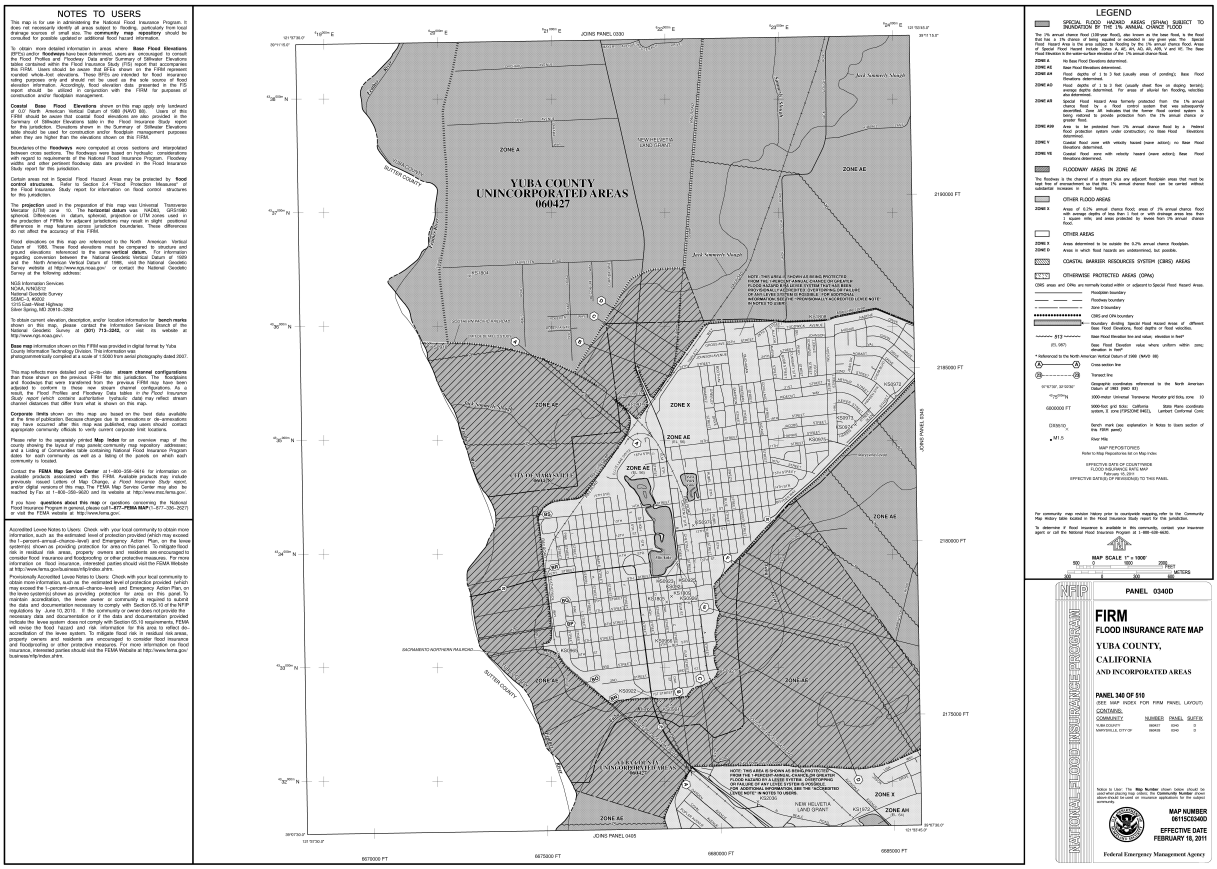
Sacramento River Flood Control Project and under United State Army Corps of Engineers (USACE) jurisdiction. Flooding in this area is primarily affected by backwater from the Feather River through Simmerly Slough Bridge, located north of the proposed project.

Within the project limits, runoff is collected via streets and gutters and then directed to storm drain systems operated by Caltrans. The City maintains a storm drain system within areas of the project limits as well. Runoff from the northern portion of the project limits is directed to the Caltrans storm drain system and then to an existing pump station located at the Binney Junction Underpass (P.M. 15.4). From there, runoff is pumped into Simmerly Slough, which flows on the north side of the Marysville Ring Levee in an area adjacent to the Project. Runoff from the southern portion of the project is directed to the Caltrans storm drain system and then to East Lake.

Floodplains

The proposed project is located in FEMA flood map 06115C0340D and portions of the proposed project are located within the 100-year floodplain. The project proposes to set back the Marysville Ring Levee but it is not a significant encroachment into the floodplain. FEMA Map for project area is shown in Figure 2.19.

Figure 2.19 FEMA Flood Map



Environmental Consequences

Hydrology and Drainage Features

Due to the proposed improvements of SR 70, the east levee (also referred to as Marysville Finger Levee), north of the Binney Junction Underpass, would have to be relocated and regraded to Cemetery Road. There is also an existing paved access road on top of the levee for maintenance that would have to be relocated accordingly in order to maintain access. In addition to relocating the levee, relief wells would be added along the new levee if required and approved by the Army Corp of Engineers(ACOE). The addition of relief wells would help minimize under-seepage that may be present in the levee.

The project would increase impervious surfaces to the project area. An impervious surface is hard surface area that either prevents or retards the entry of water into the soil mantle as under natural conditions, prior to development. For projects having 1 acre of more of new impervious area, Caltrans' MS4 Permit requires the implementation of

storm water design features and a strategy to treat runoff and manage impervious and pervious areas within the project limits.

Since the project is required to lower the existing roadway profile to meet current vertical clearance standards at the Marysville Underpass and the Binney Junction, many of the existing drainage systems would need to be replaced in kind within the project limits. There are three viable alternatives for the proposed project that would be carried into the final design phase of the project. The drainage alternatives are as follows:

Drainage Alternative 1: Alternative 1 proposes to direct runoff from the entire project using curbs and gutters via a proposed storm drainpipe. This storm drainpipe would route flow to the north to the existing pump station located at the Binney Junction Underpass. From there it would be pumped via a new (replacement) pump station to the existing outlet pipes through the existing levee structure towards Simmerly Slough. Excess volume that cannot be pumped immediately would be stored in a proposed underground sump structure. This alternative assumes that the existing pump station is at the end of its service life and would not easily be configured to work with the new required storage configuration; however, the existing form mains/pipes contained within the levee are assumed to be intact and reusable. If design assessments show that these pipes must be replaced, then the outlet capacity of the proposed pump station may be modified and the sump structure re-sized within the future outlet capacity.

Drainage Alternative 2: Alternative 2 proposes to direct runoff from the northern portion of the project to the existing pump station location where it would be pumped via a new pump station through the existing outlet pipes towards Simmerly Slough. Excess volume that cannot be pumped would be stored in a proposed underground sump structure. Runoff from the southern segment of the project would be directed to a proposed detention basin and then pumped into East Lake via either the existing storm drain system or a new storm drainpipe to be sized during the design phase of the project.

The hydraulic analysis was conducted in two phases. For both phases of the analysis, where flood waters exceed the system's capacity upstream of the project location (such as levee or bank overtopping), the hydraulic analysis assumes "weir flow" condition. A weir flow condition assumes that if a levee is overtopped it would not fail. This assumption provides a conservative approach for the amount of flow arriving at the project site. Both phases assume that no levee breaching or malfunction of the system occurs during pre or post-project conditions. The system and any proposed alterations have been assumed to be stable and functional to the top of containment. Based on this assumption, fragility curves, which define the probability of levee failure with the increase in depth of flow against the levee, are not required.

Phase 1 and Phase 2 results modeling show that the proposed alterations do not result in substantial changes to the hydraulic performance of the system. The analysis demonstrates that reductions in assurance of the system design capacity are negligible for the alternations proposed by the project. Based on the findings of the Hydraulic

analysis, construction of the project would not have adverse hydraulic impacts and the project would not be injurious to the public interest.

Pump Plant

The existing pump plant at Binney Junction is at the end of its service life and is located within the Marysville ring levee earthwork prism. The existing pump plant would be removed, and a new pump plant would be constructed to the south of the new Binney Junction structure. To achieve standard vertical clearance at the Marysville Underpass the project would lower the road profile in this area. This would require a new pump plant to the north of the Underpass and the cost of this pump plant is included in the cost of the project. Both of these pump plants are designed to maintain existing discharge rates to continue to follow historical drainage patterns. The project wouldnot affect the water table of Ellis Lake, nor will it affect its ability to gather water.

Floodplains

The project does not have a significant encroachment on the floodplain. The Simmerly Slough 100-year floodplain, from its headwaters to the northeast of Marysville to its confluence with the Feather River, is approximately 9,435 acres as mapped by FEMA. The proposed project would setback the Marysville Ring Levee to the south of where it is currently located by approximately 300 feet. The footprint of this action is approximately 3.3 acres. A detailed hydraulic modeling of Simmerly Slough without this levee setback and with this levee setback was conducted. The results of this analysis showed no change in the 100-year water surface elevation. Thus, project impacts to the floodplain are determined to be less than significant.

Stormwater

Stormwater flow for the project area from the beginning of the project to 16th street currently flows into an existing storm drain system and into Ellis Lake. Between 16th street to the north of 18th Street stormwater flows discharge to East Lake. From north of 18th street to the end of the project, stormwater flows discharge to the Binney Junction pump plant and ultimately Simmerly Slough. Stormwater flows from 24th street discharge to a city storm drain that ultimately ends at East Lake. The project would continually perpetuate existing drainage patterns.

Wetlands and Waters of the U.S.

It is determined that there is no practicable alternative to the proposed construction in the wetlands and that the proposed action includes all practicable measures to minimize harm to wetlands that may result from such use. This means, that there was no other feasible means to avoid the wetland, given the other constraints and valuable resources, such as the unavoidable cemeteries, if the wetland were to be avoided. See Biology Section for additional details.

Avoidance, Minimization, and/or Mitigation Measures

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

2.17 Water Quality and Storm Water Runoff

Regulatory Setting

Federal Requirements: Clean Water Act

In 1972, Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to the waters of the United States (U.S.) from any point source[1] unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. This act and its amendments are known today as the Clean Water Act (CWA). Congress has amended the act several times. In the 1987 amendments, Congress directed dischargers of storm water from municipal and industrial/construction point sources to comply with the NPDES permit scheme. The following are important CWA sections:

- Sections 303 and 304 require states to issue water quality standards, criteria, and guidelines.

- Section 401 requires an applicant for a federal license or permit to conduct any activity that may result in a discharge to waters of the U.S. to obtain certification from the state that the discharge would 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 storm water from industrial/construction and municipal separate storm sewer systems (MS4s).

- Section 404 establishes a permit program for the discharge of dredge or fill material into waters of the U.S. 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 Individual. There are two types of General permits: Regional and Nationwide. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal

[1] A point source is any discrete conveyance such as a pipe or a man-made 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 Regional or Nationwide Permit may be permitted under one of the USACE's Individual permits. There are two types of Individual permits: Standard permits and Letters of Permission. For Individual permits, the USACE decision to approve is based on compliance with U.S. Environmental Protection Agency's (U.S. EPA) Section 404 (b)(1) Guidelines (40 Code of Federal Regulations [CFR] Part 230), and whether the permit approval is in the public interest. The Section 404(b)(1) Guidelines (Guidelines) were developed by the U.S. EPA in conjunction with the USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there were no practicable alternative which would have less adverse effects. The Guidelines state that the USACE may not issue a permit if there is a least environmentally damaging practicable alternative (LEDPA) to the proposed discharge that would have lesser effects on waters of the U.S. and not have any other significant adverse environmental consequences. According to the Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures has been followed, in that order. The Guidelines also restrict permitting activities that violate water quality or toxic effluent[2] standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause "significant degradation" to waters of the U.S. In addition, every permit from the USACE, even if not subject to the Section 404(b)(1) Guidelines, must meet general requirements. See 33 CFR 320.4. A discussion of the LEDPA determination, if any, for the document is included in the Wetlands and Other Waters section.

State Requirements: Porter-Cologne Water Quality Control Act

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

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

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

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

State Water Resources Control Board and Regional Water Quality Control Boards

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

National Pollutant Discharge Elimination System (NPDES) Program

Municipal Separate Storm Sewer Systems (MS4)

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

The Department’s MS4 Permit, Order No. 2012-0011-DWQ (adopted on September 19, 2012 and effective on July 1, 2013), as amended by Order No. 2014-0006-EXEC (effective January 17, 2014), Order No. 2014-0077-DWQ (effective May 20, 2014) and Order No. 2015-0036-EXEC (conformed and effective April 7, 2015) has three basic requirements:

1. The Department must comply with the requirements of the Construction General Permit (see below);

2. The Department must implement a year-round program in all parts of the State to effectively control storm water and non-storm water discharges; and

3. The Department storm water discharges must meet water quality standards through implementation of permanent and temporary (construction) Best Management Practices (BMPs), to the maximum extent practicable, and other measures as the SWRCB determines to be necessary to meet the water quality standards.

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

Construction General Permit

Construction General Permit, Order No. 2009-0009-DWQ (adopted on September 2, 2009 and effective on July 1, 2010), as amended by Order No. 2010-0014-DWQ (effective February 14, 2011) and Order No. 2012-0006-DWQ (effective on July 17, 2012). The permit regulates storm water discharges from construction sites that result in a Disturbed Soil Area (DSA) of one acre or greater, and/or are smaller sites that are part of a larger common plan of development. By law, all storm water discharges associated with construction activity where clearing, grading, and excavation result in soil disturbance of at least one acre must comply with the provisions of the General Construction Permit. Construction activity that results in soil disturbances of less than one acre is subject to this Construction General Permit if there is potential for significant water quality impairment resulting from the activity as determined by the RWQCB. Operators of regulated construction sites are required to develop Storm Water Pollution Prevention Plans (SWPPPs); to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the Construction General Permit.

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

Section 401 Permitting

Under Section 401 of the CWA, any project requiring a federal license or permit that may result in a discharge to a water of the U.S. must obtain a 401 Certification, which certifies that the project would 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 WDRs under the State Water Code (Porter-Cologne Act) that define activities, such as the inclusion of specific features, effluent limitations, monitoring, and plan submittals that are to be implemented for protecting or benefiting water quality. WDRs can be issued to address both permanent and temporary discharges of a project.

Affected Environment

Studies conducted for this section include Water Quality Assessment, updated May 2020, and a Section 408 Permit Hydraulic Study, conducted May 19, 2020 by Wood Rodgers, Inc., for this project.

Calwater Watershed Parameters include the following Two Hydrologic Units:

1. Marysville: Lower Yuba River watershed (HUC 5515300000); and the
2. Marysville: Lower Feather River watershed (HUC 5515400000).

Receiving waters nearest to the project include Feather River (West), Ellis Lake (West), Yuba River (Southeast), and Jack Slough (North). Receiving waters include Feather River

Total maximum Daily Loads (TMDL) within the project area and their impairments are the following: Jack Slough is impaired with diazinon (*being addressed with action other than TMDL*), oxygen dissolved, toxicity; Yuba River, Lower, is impaired with copper and mercury; Feather River, Lower (lake Oroville Dam to Confluence with Sacramento River) is impaired with chlorpyritos (*being addressed with USEPA approved TMDL*), group A pesticides, mercury, PCBs (polychlorinated biphenyis), and toxicity. None of the TMDL's have sources that are linked to Caltrans activities. Nor has Caltrans' been identified as a stakeholder for them; therefore, the Department has no obligation to implement permanent treatment BMPs for the pollutants causing impairment.

Drainage and stormwater runoff from the highway is predominately conveyed through curb and gutter to drainage inlets. The drainage design and hydraulics study would outline the attenuation devices and conveyance methods that would be implemented within the project limits. Stormwater within the project corridor, ultimately and most likely, discharges into the receiving waters previously identified. The project lies, partly, inside of Yuba County and Marysville's Urban MS4 Phase II Permit area. With respect

to the domestic water supply status for the project area, according to the most current District 3 Work Plan, no municipal or domestic water supply reservoirs or ground water percolation facilities were identified that could potentially be impacted by spills or discharges resulting from construction activities.

There are two groundwater "LUST" cleanup sites identified within the project limits: 7-UP Bottling Co. (T0611500012) at 2100 B Street and Binney Junction (T0611500199) at 18th and C Street. Cleanup status on the Geo Tracker website states that both sites are "case closed".

Beneficial uses define the resources, services, and qualities of aquatic systems. Beneficial uses are critical to water quality management and the protection and enhancement of beneficial uses are the primary goals of water quality planning (per the Water Quality Control Plan [Basin Plan] for the Central Regional Water Quality Control Board). The following waterbodies are in or near the Project HSA, Feather River and the Yuba River. The specific beneficial uses for inland streams include the following: municipal and domestic supply (MUN), agricultural supply (AGR),commercial and sport fishing (COMM), freshwater replenishment (FRESH), industrial process supply (PRO), groundwater recharge (GWR), preservation of rare and endangered species (RARE), water contact recreation (REC1), noncontact water recreation (REC2), wildlife habitat (WILD), cold freshwater habitat (COLD), warm freshwater habitat (WARM), fish migration (MIGR), and fish spawning (SPWN).

Environmental Consequences

During construction, the project may reach or exceed 1 acre of Disturbed Soil Area (DSA). DSA is any existing dirt surface that the project would disturb. Per Caltrans' Municipal Separate Storm Sewer System (MS4) Permit, permanent treatment BMPs are required for consideration. However, at this time specifics and details related to this subject are unknown. Accordingly, it is anticipated that this topic would be vetted and discussed within the Storm Water Data Report (SWDR) during subsequent project phases.

The discharge of storm water runoff from construction sites has the potential to affect water quality standards, water quality objectives and beneficial uses. Potential pollutants and sources include the following:

- Sediment;
- Non-storm water (groundwater, waters from cofferdams, dewatering, water diversions) discharges;
- Vehicle and equipment cleaning agents, fueling, and maintenance; and
- Material handling, waste, and storage activities.

Accordingly, the Contractor is expected to implement temporary construction site BMPs, identified in the Caltrans approved Storm Water Pollution Prevention Plan (SWPPP), and to adequately maintain and evaluate BMP effectiveness in the field during project operations.

Avoidance, Minimization, and/or Mitigation Measures

There are no avoidance, minimization, and mitigation measures required for water quality and storm water.

Geology/Soils/Seismic/Topography

Regulatory Setting

For geologic and topographic features, the key federal law is the Historic Sites Act of 1935, which establishes a national registry of natural landmarks and protects "outstanding examples of major geological features." Topographic and geologic features are also protected under the California Environmental Quality Act (CEQA).

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

Affected Environment

A Geotechnical Report for the Marysville Levee Relocation was conducted July 2020 for the proposed project.

Geology and Soils

The project is located within the north-central region of California's Great Valley Geomorphic Province. According to the "Geologic Map of Late Cenozoic Deposits of the Sacramento Valley and Northern Sierra Foothills, California" (U.S. Geological Survey Miscellaneous Field Studies Map MF-1790 Sheet 2 of 5), the proposed levee relocation area is underlain by Quaternary alluvium composed of the upper member of the Modesto Formation (Qmu) and the lower member of the Modesto Formation (Qml). which is described as unconsolidated, unweathered gravel, sand, silt and clay (Plate No. 3).

The deep alluvial deposits are thousands of feet thick and comprised of Cenozoic Era in age (65-0 Ma) alluvial deposited sediments. The massive sedimentary package of

Cenozoic Era sediments is underlain by the Great Valley Sequence – Late Jurassic through Cretaceous in age (150–65 Ma) sedimentary rocks.

Data and Field Investigations

Data was utilized from various field investigations and studies of the past and present, including a 1955 Subsurface Investigation Summary, data from 2007-2008 Department of Water Resources (DWR) field investigations, and 2019-2020 field investigations, subsurface investigation summaries, and lab results by Geotechnical experts, which coincide with their report. Soil investigations found the following subsurface soil conditions within the project area.

Foundation Soils. Prior to this study, it was uncertain whether impervious blanket materials and pervious foundation soils are present beneath the proposed levee embankment area. From the laboratory test results, the levee foundation is composed of an impervious blanket layer overlying pervious materials. Impervious blanket materials typically reduce seepage movement or seepage exit gradients, which, in turn inhibit seepage forces from destabilizing the foundation beneath the levee and lessen the potential for piping of sediments from the foundation layer underlying the levee.

Impervious Foundation Blanket Materials. Varying 12 to 17 ft thickness, the fine-grained materials consisting of lean clay to lean clay with sand are present beneath the proposed levee embankment area. As shown on the cross sections (Appendix B), impervious materials were encountered on both the 2019 and 2007/2008 field investigations.

Pervious Foundation Materials. Subsurface exploration indicated pervious foundation soils consisting of silty sand to sand are present beneath the impervious blanket materials. These pervious foundation materials consisted of loose to dense, wet, poorly graded sand, silty sand, sand with silt, and sand with clay. The pervious foundation soils vary in thickness from 10 to 30 ft.

Groundwater

Based on Yuba County Water Agency (YCWA) “Groundwater Management Plan” (December 2010) the project site is located in the North Yuba Groundwater Basin (DWR Groundwater Basin No. 5-21.60), which is located in the Reclamation District No. 10 water district. Based on groundwater level data available through YCWA and the DWR Water Data Library, groundwater is expected to be within 5 to 15 ft. of the native ground surface. During the 2019 subsurface investigation, groundwater was encountered around elevation 41 ft., which is about 10-14 ft. below the groundwater of DWR Water Data Library. Note that ground water levels indicated in this report reflect the measured ground water level in the borehole on the specified date. In addition, ground water elevations are subject to seasonal fluctuations and would be encountered at higher or lower elevations depending on seasonal conditions at time of construction.

Environmental Consequences

The project proposes to move the Marysville levee east to accommodate the realignment raised roadway profile of SR 70. No mineral resources would be removed with the implementation of this project and no scenic resources or unusual geologic and/or topographic features would be affected. Overall, the realignment of the Marysville levee (also referred to as the finger levee) would not have adverse impacts on geology and soils.

Geology and Soil

Soil liquefaction is a phenomenon where saturated granular soil substantially loses its strength in response to cyclic loading from ground shaking during an earthquake. Due to cohesive and stiff clay presented in the DWR and 2019 soil borings, the potential for liquefaction and lateral spreading at the locations of the proposed structure is remote.

The placement of the levee fill would cause settlement within the underlying soils. Based on the subsurface conditions, the soils below the levee fills consist of a 12 to 17 feet thick clay layer underlain by granular soils consisting of silts, sands, and gravels. The settlement was evaluated for an approximate fill height of 22 feet.
The estimated settlement of the clayey layer is about 3 to 4 inches.

Seepage potential can influence the stability of levee system dependent upon the geometry of levee, the composition of levee soil materials, and the elevation of water level behind the levee. However, the results of seepage analyses indicate that the exit gradients and safety factors for under-seepage are satisfactory. The through seepage shall be controlled by building the proposed levee with impervious material or by having an impervious core at the center of the levee. The slope stability analyses show that safety factors are satisfactory for all scenarios.

Seismic

As part of geotechnical analyses, a probabilistic earthquake hazard evaluation was conducted in Dynamic: Conterminous US 2014 updated v.4.2.0 edition map, using the United States Geological Survey (USGS) Interactive Unified Hazard Tool website. According to the results from the USGS website, the peak horizontal ground acceleration (PHGA) for the project site is estimated to be approximately 0.24g, corresponding to disaggregation mean magnitude of 7.0. Therefore, a magnitude 7.0 earthquake with a PHGA of 0.24 g is considered as the design seismic event for our evaluation of the levee system. Therefore, the new structures would have seismic standards.

Avoidance, Minimization, and/or Mitigation Measures

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

2.18 Hazardous Waste and Materials

Regulatory Setting

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

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

- Community Environmental Response Facilitation Act (CERFA) of 1992
- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety and Health Act (OSHA)
- Atomic Energy Act
- Toxic Substances Control Act (TSCA)
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

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

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

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

Affected Environment

There are several hazardous materials within the project area. They are the following:

Naturally Occurring Asbestos (NOA): A geologic evaluation regarding NOA was conducted within the project limits. The evaluation indicate that altered ultramafic bedrock, alluvium derived from ultramafic rock, or other rock commonly associated with NOA may be present.

Lead in Soil - Aerial Deposited Lead (ADL): Lead from historical combustion of leaded fuel is known to exist throughout the project limits.

Thermoplastic/Paint Stripe/Pavement Marking: Thermoplastic paint may contain lead of varying concentrations depending upon color, type and year of manufacture.

Treated Wood Waste (TWW): TWW is found in posts, railroad ties, and/or metal beam guard rail. There is TTW within the project area.

Structures: The proposed project would include work on existing structures. Asbestos containing material or lead containing paint may exist on existing structures proposed to be replaced on the project.

Cortese Sites:

The Cortese list is a compilation of contaminated sites identified by the State of California – State Water Resource Control Board; active, closed, inactive, landfills identified by the Integrated Waste Management Board; and potentially hazardous waste sites identified by the Department of Toxic Substance Control. The list was reviewed as a part of the screening for this project and compliance with CEQA. A closed Cortese listed site, the 7-UP Bottling Company located at 2100 B street is located within the project area.

Environmental Consequences

For several of the hazardous waste issues such as NOA, ADL, TWW, and thermoplastic paint striping, the project would test, treat, and/or dispose of any hazardous waste according to Federal and State standards. Certain specifications would be required in the project contract.

In particular, a closed Cortese listed site, which is the 7-UP Bottling Company located at 2100 B street, would be impacted based on the current scope of the project. This would require OEES to conduct a preliminary site investigation (PSI) and prepare an exemption to acquire the contaminated parcel.

Aerially deposited lead (ADL) from the historical use of leaded gasoline, exists along roadways throughout California. There is the likely presence of soils with elevated concentrations of lead as a result of ADL on the state highway system right of way within the limits of the project alternatives. Soil determined to contain lead concentrations exceeding stipulated thresholds must be managed under the July 1, 2016, ADL Agreement between Caltrans and the California Department of Toxic Substances Control. This ADL Agreement allows such soils to be safely reused within the project limits as long as all requirements of the ADL Agreement are met.

Avoidance, Minimization, and/or Mitigation Measures

Specifications required are the following: NOA, ADL, TWW, and Thermoplastic paint striping specifications, as well as standard specifications required for all projects. No mitigation is required for hazardous materials.

2.19 Air Quality

Regulatory Setting

The Federal Clean Air Act (FCAA), as amended, is the primary federal law that governs air quality while the California Clean Air Act (CCAA) is its companion state law. These laws, and related regulations by the 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 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 (PM2.5), Lead (Pb), and sulfur dioxide (SO2). In addition, 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.

Conformity

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 PM2.5), and in some areas (although not in California), sulfur dioxide (SO2). California has nonattainment or maintenance areas for all of 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 or not 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 scope[3] 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.

[3] "Design concept" means the type of facility that is proposed, such as a **fr**eeway 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.

Affected Environment

Information presented in this section is based on the Air Quality Report prepared for the proposed project (Caltrans 2020).

Location, Climate, and Meteorology

The topography of a region can substantially impact air flow and resulting pollutant concentrations. California is divided into 15 air basins with similar topography and meteorology to better manage air quality throughout the state. Each air basin has a local air district that is responsible for identifying and implementing air quality strategies to comply with ambient air quality standards.

The SR 70 Roadway Rehab project site is located in proximity to City of Marysville in Yuba County, an area within the Sacramento Valley Air Basin (SVAB), which includes Sacramento, Shasta, Tehama, Butte, Glenn, Colusa, Sutter, Yuba, Yolo, and parts of Solano and Placer Counties. Air quality regulation in this project location is administered by Feather River Air Quality Management District. Current and forecasted population for Yuba County is 77,031 as of the 2017 U.S. Census, and the county's economy is largely driven by Yuba City.

The Yuba County Airport climatological station, maintained by Yuba 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 55°Fahrenheit in January) and hot, dry summers (from 64 to 96°Fahrenheit in July). Annual average rainfall is approximately 22.02 inches (at Yuba county airport), mainly falling during the winter months. Yuba County, California, covers an area of approximately 640 square miles. The lowest and highest elevations in Yuba County are 35 feet and 4,820 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.

Existing Air Quality

The following table includes attainment statuses for criteria pollutants, describes local ambient concentrations of criteria pollutants for the past 4 years, and discusses MSAT and GHG emissions. The closest air quality monitoring station to the project site is the Yuba County Airport monitoring station, which is located approximately 3 miles south of the project location. The station monitors air quality of criteria pollutants and is maintained by FRAQMD in conjunction with CARB.

Table 10 lists air quality trends in data collected at the Yuba City-Almond Street monitoring station for the past 4 years. O_3, $PM_{2.5}$, and PM_{10} data were obtained from this station. CO, NO_2, Pb, H_2S, Vinyl Chloride, or Visibility Reducing Particles is not measured at this monitoring station. The data was compiled from the California Air Resources Board's iADAM: Air Quality Data Statistics and the Environmental Protection Agency's Monitor Values Report. As the data stands, the area surrounding the project did not exceed the state Max 1-hr concentration standards for O_3, the federal Max 24-hr concentration for PM_{10}, and the federal annual average concentration for $PM_{2.5}$ in the period 2015–2017. Levels of ozone exceeded the state and the federal 8-hour standard concentrations for the periods of 2015, 2017, and 2018. Levels of PM_{10} and PM2.5 exceeded the state Max 24-hour standard and the federal 24-hr standard for the past 4 years, respectively.

Table 2.17 AQ Concentrations for the Past 4 Years Measured at Yuba City-Almond Street

Ozone

Pollutant	Standard	2015	2016	2017	2018
Max 1-hr concentration (ppm): State		0.080	0.075	0.085	0.086
No. days exceeded: State	0.09 ppm	0	0	0	0
Max 8-hr concentration (ppm): State	N/A	N/A	N/A	N/A	N/A
Max 8-hr concentration (ppm): Federal		0.074	0.065	0.073	0.071
No. days exceeded: State	0.070 ppm	1	0	2	1
No. days exceeded: Federal	0.070 ppm	1	0	2	1

PM_{10}

Pollutant	Standard	2015	2016	2017	2018
Max 24-hr concentration (µg/m^3): State		67.2	51.7	145.5	339.6
Max 24-hr concentration (µg/m^3): Federal		68.2	51.4	145.0	318.6
Estimated No. days exceeded: State	50 µg/m^3	6	1	19.3	*

Estimated No. days exceeded: Federal	150 µg/m^3	0	0	0	8
Annual average concentration (µg/m^3): State	0	23.1	20.4	21.8	*
Annual average concentration (µg/m^3): Federal		23.2	20.7	21.8	30.6

$PM_{2.5}$

Pollutant	Standard	2015	2016	2017	2018
24-hr average concentration (µg/m^3): State		36.1	40.1	47.2	285.0
24-hr average concentration (µg/m^3): Federal		36.1	40.1	45.0	52.8
Estimated No. days exceeded: Federal	35 µg/m^3	2	1	2.4	8.4
Annual average concentration (µg/m^3): State		10.2	11.4	11.8	18.0
Annual average concentration (µg/m^3): Federal		9.6	8.1	9.2	10.2

Source: California Air Resources Board (http://www.arb.ca.gov/adam) and accessed on 05/20/2020
*There was insufficient (or no) data available to determine the value.
N/A: not applicable or not available
Data not provided for Carbon Monoxide (CO), Nitrogen Dioxide (NO_2), Lead (Pb), Hydrogen Sulfide (H_2S), Vinyl Chloride, or Visibility Reducing Particles as these pollutants are not currently monitored at the Yuba City-Almond Street monitoring station.

Attainment Status

Areas that do not violate ambient air quality standards are considered to have attained the standard. Violations of ambient air quality standards are based on air pollutant monitoring data and are evaluated for each air pollutant. Table 9 lists the state and federal attainment status for all regulated pollutants. At the federal level, Yuba County is classified as attainment-maintenance for $PM_{2.5}$, unclassified for PM10, and unclassified/attainment for O_3, CO, NO_2, and SO_2. At the state level, Yuba County is classified as nonattainment for O_3 and PM_{10}, attainment for $PM_{2.5}$, NO_2, SO_2, Pb, and sulfates, and unclassified for CO, visibility-reducing particles, and hydrogen sulfide.

Table 2.18. State and Federal Attainment Status.

Pollutant	State Attainment Status	Federal Attainment Status
Ozone (O_3)	Nonattainment	Unclassified/Attainment
Respirable Particulate Matter (PM_{10})	Nonattainment	Unclassified
Fine Particulate Matter ($PM_{2.5}$)	Attainment	Attainment-Maintenance (Moderate)
Carbon Monoxide (CO)	Unclassified	Unclassified/Attainment
Nitrogen Dioxide (NO_2)	Attainment	Unclassified/Attainment
Sulfur Dioxide (SO_2)	Attainment	Unclassified/Attainment
Lead (Pb)	Attainment	Unclassified/Attainment
Visibility-Reducing Particles	Unclassified	N/A
Sulfates	Attainment	N/A
Hydrogen Sulfide	Unclassified	N/A

Vinyl Chloride	N/A	N/A

Table 2.19. State and Federal Criteria Air Pollutant Effects and Sources.

Pollutant	Principal Health and Atmospheric Effects	Typical Sources
Ozone (O_3)	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.
Respirable Particulate Matter (PM_{10})	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 and 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.
Fine Particulate Matter ($PM_{2.5}$)	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 and 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 NO_x, sulfur oxides (SO_x), ammonia, and ROG.
Carbon Monoxide (CO)	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.
Nitrogen Dioxide (NO_2)	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.
Sulfur Dioxide (SO_2)	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.
Lead (Pb)	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.
Visibility-Reducing	Reduces visibility. Produces haze. NOTE: not directly related to the Regional Haze program under the Federal Clean Air Act,	See particulate matter above. May be related more to aerosols than to solid particles.

Particles (VRP)	which is oriented primarily toward visibility issues in National Parks and other “Class I” areas. However, some issues and measurement methods are similar.	
Sulfate	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.
Hydrogen Sulfide (H_2S)	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.
Vinyl Chloride	Neurological effects, liver damage, cancer. Also considered a toxic air contaminant.	Industrial processes.

Mobile Source Air Toxins (MSATS)

The primary MSAT pollutant source within the project area is SR 70. Railroad tracks close to SR 70 may also be a source of MSAT pollutants.

The US EPA regulates a list of air toxics (64 FR 38706). Toxic air pollutants or hazardous air pollutants (HAPs) are those that are known to cause or suspected of causing cancer or other serious health ailments. Controlling air toxic emissions became a national priority with the passage of the Clean Air Act Amendments (CAAA) of 1990, whereby Congress mandated that US EPA regulate 188 air toxics, also known as hazardous air pollutants. In 2001, US EPA issued its first Mobile Source Air Toxics Rule, which identified 21 mobile source air toxic (MSAT) compounds as being hazardous air pollutants that required regulation. A subset of these MSAT compounds was identified as having the greatest influence on health. EPA issued the second MSAT Rule in 2007, which generally supported the findings of the first rule and provided additional recommendations of compounds having the greatest impact on health. The rule also identified several engine emission certification standards that must be implemented. US EPA has assessed this expansive list in their latest rule on the Control of Hazardous Air Pollutants from Mobile Sources (Federal Register, Vol. 72, No. 37, page 8430, February 26, 2007) and identified a group of 93 compounds emitted from mobile sources that are listed in their Integrated Risk Information System (IRIS).7

The 21 HAPs identified by US EPA as MSATs are emitted from highway vehicles and non-road equipment. Some toxic compounds are present in fuel and are emitted to the air when the fuel evaporates or passes through the engine unburned. Other toxics are emitted from the incomplete combustion of fuels or as by-products. Metal air toxics result from engine wear or from impurities in oil or gasoline. US EPA has identified seven compounds with significant contributions from mobile sources that are among the national and regional-scale cancer risk drivers from their 1999 National Air Toxics Assessment (NATA).8 These are acrolein, benzene, 1,3-butadiene, diesel particulate matter (DPM) that includes diesel exhaust organic gases, formaldehyde, naphthalene, and polycyclic organic matter. While FHWA considers these the priority mobile source

air toxics, the list is subject to change and may be adjusted in consideration of future EPA rules.

The US EPA is the lead federal agency responsible for administering the Clean Air Act and has certain responsibilities regarding the health effects of MSATs. In its 2001 rule (66 FR 17229), US EPA examined the impacts of existing and newly promulgated mobile source control programs, including its reformulated gasoline program, national low emission vehicle standards, Tier 2 motor vehicle emissions standards and gasoline sulfur control requirements, and proposed heavy duty engine and vehicle standards and on-highway diesel fuel sulfur control requirements.9 The agency is preparing another rule under authority of Clean Air Act Section 202(l) that would address these issues and could make adjustments to the full 21 and the primary seven MSATs.10

FHWA's ongoing work in air toxics includes a research programs to better understand and quantify the contribution of mobile sources to air emissions, the establishment of policies for addressing mobile source emissions in environmental reports, and the assessment of scientific literature on health impacts associated with motor vehicle emissions. California’s vehicle emission control and fuel standards are more stringent than federal standards and are effective earlier. CARB found that DPM contributes over 70 percent of the known risk from air toxics and poses the greatest cancer risks among all identified air toxics. Diesel trucks contribute more than half of the total diesel combustion sources. In response, CARB adopted a Diesel Risk Reduction Plan with control measures to reduce the overall DPM emissions by about 85 percent from 2000 to 2020. Part of the plan included recently adopted regulation that requires operators of truck and bus fleets in California to retrofit or replace vehicles to meet US EPA NOX and PM2.5 emission standards for 2010 model trucks (13 C.C.R. section 2025). Implementation of this regulation begins in 2014. By 2023, nearly all trucks and buses operating in California would need to meet 2010 model year engine emission standards.

Emissions of MSATs are anticipated to decrease substantially in future years. According to an FHWA analysis using EPA's MOVES2010b model, as shown in Figure 2, a combined reduction of 83 percent in the total emissions for the priority MSATs from 2010 to 2050 is projected. This would occur while vehicle-miles travelled (VMT) is assumed to increase by 102 percent. The combined State and federal regulations are expected to result in greater emission reductions, more quickly, than the FHWA analysis indicates. Trends for specific locations may be different, depending on locally derived information representing vehicle-miles travelled, vehicle speeds, vehicle mix, fuels, emission control programs, meteorology, and other factors.

Sensitive Receptors

Sensitive receptors include residential areas, schools, hospitals, other health care facilities, child/day care facilities, parks, and playgrounds. On the basis of research showing that the zone of greatest concern near roadways is within 500 feet (or 150 meters), sensitive receptors within 500 feet (or 150 meters) have been identified except a few residential properties. Sensitive receptors include the Marysville High School located at 12 18th Street, Marysville, CA 95901, and the E center, located at 1128 Yuba

Street, Marysville, CA 95901. Marysville HS is a four-year public high school with grades 9-12 and is located 300 feet from the project zone, east of the project. The E center is a private non-profit for the Head Start program, serving children and communities, and is located approximately 500 feet from the project zone, south of the project. No other sensitive receptors such as hospitals occur within the 500 feet buffer of the proposed project area.

Environmental Consequences

Regional Conformity

The proposed project is listed in the Metropolitan Transportation Improvement Program (MTIP) and 2016 financially constrained Metropolitan Transportation Plan/Sustainable Communities Strategy which was found to conform by SACOG on February 18, 2016, and FHWA and FTA made a regional conformity determination finding on December 7, 2018. The project is also included in SACOG financially constrained 2019-2022 Metropolitan Transportation Improvement Program, pages 56/440 (See Appendix B). The SACOG and 2019-2022 Metropolitan Transportation Improvement Program was determined to conform by FHWA and FTA on December 17, 2018. The design concept and scope of the proposed project is consistent with the project description in the 2019-22 MTIP, and the “open to traffic” assumptions of the SACOG regional emissions analysis.

Project Level Conformity

The project is located in the maintenance area for PM2.5, thus a project-level hot-spot analysis for PM2.5 is required under 40 CFR 93.109. This proposed project includes widening the road to five lanes within the proposed postmile limits (P.M.14.8/15.7). The project’s design concept and the scope match those assumed for regional analysis purposes (in the MTP and MTIP) and a hot-spot analysis for carbon monoxide and/or particulate matter. The project does not cause or contribute to any new localized CO, PM2.5, 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.

Interagency Consultation

SACOG completed an Interagency Consultation Review (ICR) in order to evaluate if it is a Project of Air Quality Concern (POAQC) as defined in 40 CFR 93.116 and 93.123 and U.S.EPA’s Hot-Spot Guidance. The traffic information used for the ICR was derived from the Draft Traffic Analysis Report. The project obtained concurrence from both EPA and FHWA that the Project is not a POAQC on May 14, 2019 and May 18, 2019, respectively.

Long Term Effects (Operational Emissions)

Operational emissions take into account long-term changes in emissions due to the project (excluding the construction phase). The operational emissions analysis

compares forecasted emissions for existing/baseline, No-Build, and all Build alternatives. Data shows that CO and NOx emissions from the traffic operation during the opening (2026) and the design (2046) years would not be statistically changed between no-build and build alternatives. The emissions of CO and NOx in the future build alternatives would be lower than those in the baseline year.

CO Analysis

There are no CO non-attainment areas in California; all areas in California are currently designated attainment/unclassified or maintenance for the state and federal CO standards.

The CO Protocol was developed for project-level conformity (hot-spot) analysis and was approved for use by the U.S. EPA in 1997. It provides qualitative and quantitative screening procedures, as well as quantitative (modeling) analysis methods to assess project-level CO impacts. The qualitative screening step is designed to avoid the use of detailed modeling for projects that clearly cannot cause a violation, or worsen an existing violation, of the CO standards. Although the protocol was designed to address federal standards, it has been recommended for use by several air pollution control districts in their CEQA analysis guidance documents and should also be valid for California standards because the key criterion (8-hour concentration) is similar: 9 ppm for the federal standard and 9.0 ppm for the state standard.

The Transportation Project-Level Carbon Monoxide Protocol (University of California, Davis, Institute of Transportation Studies (UCD ITS) (1997)) was used to determine the analysis needed regarding potential project-level CO impacts. The guidelines in the Protocol comply with the Clean Air Act, federal and state conformity rules, NEPA, and CEQA.

Sections 3 and 4 of the CO Protocol describe the methodology for determining whether a CO hot-spot analysis is required. The Protocol provides two conformity requirement decision flowcharts that are designed to assist project sponsors in evaluating the requirements that apply to their project. The flowchart of the CO Protocol applies to new projects and was used here. The CO Protocol flowchart can be found in Appendix G. Additionally, below is a step-by-step explanation of the flowchart. Each level cited is followed by a response, which in turn determines the next applicable level of the flowchart for the project.

3.1.1. Is the project exempt from all emissions analyses? (See Table 1 of Protocol.) NO. The proposed project would widen the road to five lanes within the proposed postmile limits (P.M.14.8/15.7) on State Route (SR) 70 between south of 14th Street and north of Cemetery Road in Yuba County, California.

3.1.2. Is the project exempt from regional emissions analyses? *NO*. The proposed project would widen the road to five lanes within the proposed postmile limits (P.M.14.8/15.7) on State Route (SR) 70 between south of 14th Street and north of

Cemetery Road in Yuba County, which is not exempt from regional emissions analyses per 40 CFR 93.127.

3.1.3. Is the project locally defined as regionally significant? *YES*. The proposed project is also included in the 2019 MTIP. As such, the proposed project is locally defined as regionally significant in accordance with 40 CFR 93.101.

3.1.4. Is the project in a federal attainment area? *YES*. The proposed project is located in a federal attainment area for the federal CO standard.

3.1.4a. Is the project in a California attainment area? *YES*. The proposed project is located in a State attainment area for the federal CO standard.

3.1.9. Examine local impacts and proceed to Section 4.

Section 4 of the Protocol assesses local analysis. Assessment of the project's effect on localized ambient air quality is based on analysis of CO and PM_{10} emissions, with the focus on CO. Localized emissions of CO and PM_{10} may increase with implementation of the proposed project. CO is used as an indicator of a project's direct and indirect impact on local air quality, because CO does not readily disperse in the local environment in cool weather when the wind is fairly still. As stated in the Protocol, the determination of project-level CO impacts should be carried out according to the Local Analysis flow chart shown in Appendix G. The following discussion provides explanatory remarks for every step of the local analysis in Appendix G. Appendix G can be found in the July AQR.

Level 1: Is the project in a CO nonattainment area? *NO*. The proposed project is located in a federal attainment area.

Level 1 (Continued): Was the area re-designated as "attainment" after the 1990 Clean Air Act? *YES*. EPA approved the maintenance plans and re-designation request in 1998.

Level 1 (Continued): Has "continued attainment" been verified with the local Air District, if appropriate? *YES*. The proposed project continues to be in attainment for CO. (Proceed to Level 7).

Level 7: Does the project worsen air quality? *No*. The project is not anticipated to worsen air quality based on the criteria "a," "b," and "c" from the CO Protocol:

Based on the screening procedure in section 4.7.1 of the CO Protocol, only projects that are likely to worsen air quality necessitates further analysis. The following criteria were used to determine whether this project is likely to worsen air quality in the project area:

a. The project significantly increases the percentage of vehicles operating in cold start mode. Increasing the number of vehicles operating in cold start mode by as little as 2% should be considered potentially significant.

- The project would have no impact on the percentage of vehicles operating in cold start mode.

b. The project significantly increases traffic volumes. Increases in traffic volumes in excess of 5% should be considered potentially significant. Increasing the traffic volume by less than 5% may still be potentially significant if there is a corresponding reduction in average speeds.

- The proposed project would slightly increase traffic volumes along the roadway segments. However, this increase in traffic volumes is not considered significant since the proposed facility would not reduce average speeds between build and no-build alternatives.

c. The project worsens traffic flow. For uninterrupted roadway segments, a reduction in average speeds (within a range of 3 to 50 mph) should be regarded as worsening traffic flow. For intersection segments, a reduction in average speed or an increase in average delay should be considered as worsening traffic flow.

- The proposed project would improve traffic flow by alleviating congestion from local roads and providing higher average speed in the future build alternatives than that in the future no-build alternatives within the proposed project area. The project does not reduce average speeds. Since traffic flow would not be worsened by the proposed project, no adverse impacts to air quality are anticipated to occur.

  Based on the screening above by the CO Protocol flow chart, the build alternatives under consideration would not worsen the air quality in the project area. Therefore, the proposed project is found satisfactory and no further analysis is needed.

  PM Analysis

  PM emissions were estimated for baseline, no-build, and all build alternatives for the opening year and the design year.

  PM2.5, criteria pollutant in maintenance in Yuba County, would not change between build and no-build alternatives for the opening year. PM emissions from the build alternatives during the design year would be slightly higher than those from the no-build alternative. These emissions would gradually increase during both opening and design years in comparison with the baseline year due to increases in VMT and emissions from tire wear, brake wear, and road dust. However, operational air quality impacts by PM would not be substantial, since this proposed project is not a project of air quality concern. Further, no cumulatively considerable impacts to PM2.5 in maintenance are anticipated as the project's operational emission for the maintenance pollutant would not be significant under the build alternatives.

  Hot-Spot Analysis

  In November 2015, the U.S. EPA released an updated version of Transportation Conformity Guidance for Quantitative Hot-Spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas (Guidance) for quantifying the local air quality impacts of transportation projects and comparing them to the PM NAAQS (75 FR

79370). The Guidance requires a hot-spot analysis to be completed for a project of air quality concern (POAQC). The final rule in 40 CFR 93.123(b)(1) defines a POAQC as:

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

Project Analysis: This guidance shows a significant number of diesel vehicles as facilities with greater than 125,000 AADT and 8% or more diesel truck traffic. The proposed project would widen the existing roadway on State Route (SR) 70 in Yuba County by adding an additional 12-foot lane on both directions of the highway. The diesel truck traffic in this project is less than 10,000 (see Table 5) and this proposed project does not serve a significant number of diesel vehicles.

(ii) Projects affecting intersections that are at Level-of-Service (LOS) D, E, or F with a significant number of diesel vehicles, or those that would change to LOS D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project;

Project Analysis: LOS at intersections under the future build scenario would be improved in comparison with that under the future no-build scenario.

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

Project Analysis: The project does not include new bus or rail terminals and transfer points.

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

Project Analysis: The project does not include expanded bus or rail terminals and transfer points.

(v) Projects in or affecting locations, areas, or categories of sites which are identified in the PM2.5 and PM10 applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.

Project Analysis: The project is not in, nor would it affect, a location of violation or possible violation.

The project is subject to PM conformity analysis because it is located within a PM2.5 maintenance area. As the first step in demonstrating PM2.5 conformity, SACOG completed an Interagency Consultation to determine if it is a Project of Air Quality Concern (POAQC) as defined in 40 CFR 93.116 and 93.123 and U.S.EPA's Hot-Spot Guidance. SACOG obtained concurrence from both EPA and FHWA that the Project is not a POAQC on May 14 and May 18, 2020, respectively.

NO_2 Analysis

The U.S. EPA modified the NO_2 NAAQS to include a 1-hr standard of 100 ppb in 2010. Currently there is no federal project-level nitrogen dioxide (NO_2) analysis requirement. However, NO_2 is among the near-road pollutants of concern.

For NEPA, future Build scenario emissions were compared with future No-Build scenario emissions; for CEQA, future scenario emissions (Build and No-Build) were compared with Baseline (Existing Conditions) emissions. The analysis demonstrates there would be no statistical changes between the build alternatives and the no-build alternative during opening and design years, and the emissions of NOx for the future Build years (2026 and 2046) would be lower than those for the existing year (2016). Overall emissions are not anticipated to be substantial with the proposed project. Therefore, operational air quality impacts by NOx would not be substantial. Further, no cumulatively considerable impacts to criteria pollutants are anticipated as the project's operational emissions are not significant under the build Alternatives.

Asbestos

Based on review of the California Geological Survey[4], Yuba County includes the presence of ultramafic rocks or serpentinite and asbestos occurrences reported in the literature. However, Naturally Occurring Asbestos (NOA) is not mapped in the area of Yuba County where NOA is expected to occur.

The construction activities proposed by Caltrans may disturb NOA-containing soil/rock units, if present at the site. The California Air Resources Board (CARB) has mitigation practices for construction, grading, quarrying and surface mining operations that may disrturb natural occurrences of asbestos as outlined in CCR Title 17, §93105 – Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations (ATCM 93105). NOA potentially poses a health hazard when it becomes an airborne paticulate. Mitigation practices can reduce the risk of exposure to asbestos-containing dust. The primary mitigation practice used for controlling exposure to potentially asbestos-containing dust is the implementation of engineering controls including wetting the materials being disturbed. If engineering controls do not adequately control exposure to potentially asbestos-containing dust, the use of personal protective equipment including wearing air purifying repieators with High Efficiency Paticulate Air (HEPA) filters is required during construction activities.

Lead

Lead is normally not an air quality issue for transportation projects unless the project involves disturbance of soils containing high levels of aerially deposited lead or painting or modification of structures with lead-based coatings. Any potential Aerially Deposited Lead (ADL) issues would be addressed within the Initial Site Assessment.

MSATS

[4] Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California (source: ftp://ftp.consrv.ca.gov/pub/dmg/pubs/ms/59/MS59_Pamphlet.pdf)

FHWA released updated guidance in October 2016 (FHWA, 2016) for determining when and how to address MSAT impacts in the NEPA process for transportation projects. FHWA identified three levels of analysis:

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

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

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

Projects with high potential MSAT effects include those that:

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

Based on the ARB Land Use Handbook (Cal/EPA and ARB, 2005), it is generally recommended in California that projects perform an emissions analysis to address CEQA requirements if any of the following criteria are met:

- The project changes capacity or realigns a freeway, or urban road with AADT of 100,000 or more and there are sensitive land uses within 500 feet of the roadway.
- The project changes capacity or realigns a rural road (non-freeway) with AADT of 50,000 or more and there are sensitive land uses within 500 feet of the roadway.

This proposed project proposes to widen the existing 2-lane highway to 4-lane highway with adding substantial new capacity and is located in proximity to the sensitive receptors such as a school and a daycare center. However, traffic volumes would not be projected to be in the range of 140,000 to 150,000 for NEPA and 50,000 for CEQA criteria, or greater, by the design year. Therefore, the proposed project can fall into the Category 2 (FHWA, 2016), a project with low potential MSAT effects. As such, a qualitative MSAT analysis for NEPA requirements is appropriate, and CEQA requirements would not be addressed. (See AQR Appendix for more detail)

The estimated MSAT emissions would not be substantial changes between no-build and build alternatives during the future years. Also, it is expected there would be no appreciable difference in overall MSAT emissions between the future build alternatives and the baseline.

GHG

Projected CO_2 emissions were computed for existing condition in 2016, and no-build and build alternatives in 2026 and in 2046, respectively. For the opening year (2026), there would not be expected to increase in CO_2 emissions from the build alternatives in comparison with the no-build alternative. For the design year (2046), CO_2 emissions from the build alternatives are expected to slightly increase in comparison with those from the no-build alternative. This slight change could be probably attributed to the projected change in VMT. However, this would indicate no substantial change in the level of greenhouse gas emissions. During the design year, CO_2 emissions from the build alternatives are expected to increase in comparison with those from the existing condition probably due to the increase in VMT (approximately 76%).

It should be noted that while these emission numbers are useful for comparing alternatives, they do not necessarily accurately reflect what the true CO_2 emissions would be because CO_2 emissions are dependent on other factors that are not part of the CT-EMFAC model, such as the fuel mix (CT-EMFAC model emission rates are only for direct engine-out CO_2 emissions, not full fuel cycle; fuel cycle emission rates can vary dramatically depending on the amount of additives like ethanol and the source of the fuel components), rate of acceleration, and the aerodynamics and efficiency of the vehicles. See Table 21. Modeled CO_2 Emissions by Alternatives

Table 2.20. Modeled CO_2 Emissions by Alternatives.

Years & Alternatives	CO_2 Emissions (US Tons/Day)	Daily Vehicle Miles Traveled
Baseline Year 2016	6.878	16,645

Years & Alternatives	CO_2 Emissions (US Tons/Day)	Daily Vehicle Miles Traveled
Opening Year 2026		
No Build	7.004	21,548
Build Alternatives 1 & 2	6.811	21,947

Years & Alternatives	CO_2 Emissions (US Tons/Day)	Daily Vehicle Miles Traveled
Opening Year 2046		
No Build	7.107	27,407
Build Alternatives 1 & 2	7.160	29,346

CO_2 = carbon dioxide
Source: EMFAC2017

The proposed project would slightly increase traffic volumes along the roadway

In regard to this project; for the opening year (2026), there would not be expected to increase in CO_2 emissions from the build alternatives in comparison with the no-build alternative. For the design year (2046), CO_2 emissions from the build alternatives are expected to slightly increase in comparison with those from the no-build alternative. This slight change could be probably attributed to the projected change in VMT. However, this would indicate no substantial change in the level of greenhouse gas emissions. During the design year, CO_2 emissions from the build alternatives are expected to increase in comparison with those from the existing condition probably due to the increase in VMT (approximately 76%). See Table 21.

For the proposed project, widening to four travel lanes reduces fuel consumption since less delay would occur at signalized intersections. The Build Alternative would have less GHG emissions and the small VMT increase would be offset by the reduction in peak hour GHG emissions due to improved intersection operations. See Daily Pollutant Emissions Table 3 for more details.

Table 2.21: Daily Pollutant Emissions

Pollutant	Existing Year (2018)	Horizon Year (2043)		
		Segments 4-5 No Build Alternative	Segment 7 No Build Alternative	Segments 4-5 & 7 Build Alternative
ROG	0.64	0.17	0.17	0.17
TOG	0.81	0.21	0.21	0.21
CO	12.44	4.57	4.57	4.56
NOx	6.47	3.45	3.48	3.48
SOx	0.03	0.03	0.03	0.03
CO2	3,417.84	3,380.73	3,392.29	3,393.95
CH4	0.09	0.03	0.03	0.03
PM10	0.11	0.05	0.05	0.05
PM2.5	0.11	0.04	0.04	0.04
N2O	0.28	0.28	0.28	0.28
GHG[1]	3,418.21	3,381.03	3,392.60	3,394.26

Notes: Emissions are reported in tons per day. 1 ton equals 0.9072 metric tons.
1. GHG is the sum of CO2, CH4 and N2O.
Source: EMFAC2017 (CARB, 2017), Fehr & Peers (2019)

Avoidance, Minimization, and/or Mitigation Measures

There are no avoidance, minimization, and/or mitigation measures for air quality.

2.20 Noise and Vibration

Regulatory Setting - Highway Noise

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

California Environmental Quality Act

CEQA requires a strictly baseline versus build analysis to assess whether a proposed project would have a noise impact. If a proposed project is determined to have a significant noise impact under CEQA, then CEQA dictates that mitigation measures

must be incorporated into the project unless those measures are not feasible. The rest of this section would focus on the NEPA/Title 23 Part 772 of the Code of Federal Regulations (23 CFR 772) noise analysis; please see Chapter 3 of this document for further information on noise analysis under CEQA.

National Environmental Policy Act and 23 CFR 772

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

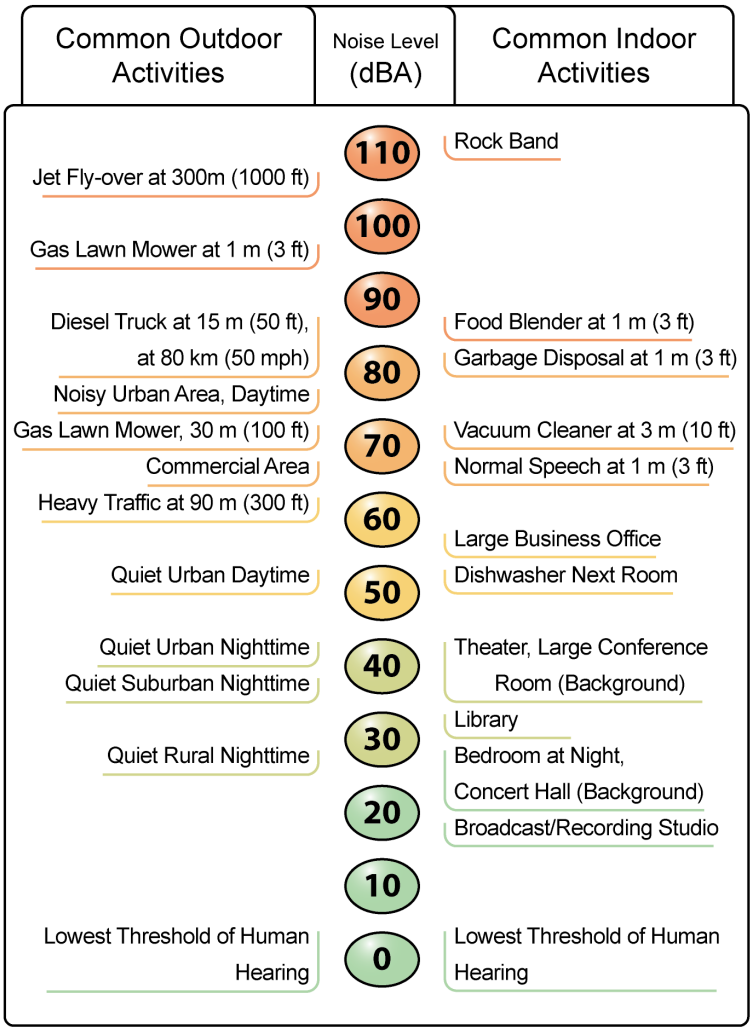
Table 2.22. Noise Abatement Criteria

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

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

(Figure 2.20) lists the noise levels of common activities to enable readers to compare the actual and predicted highway noise levels discussed in this section with common activities.

Figure 2.20 Common Noise Activity Levels



According to the Department's *Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects, May 2020,* a noise impact occurs when the predicted future noise level with the project substantially exceeds the existing noise level (defined as a 12 dBA or more) or when the future noise level with the project approaches or exceeds the NAC. A noise level is considered to approach the NAC if it is within 1 dBA of the NAC.

If it is determined that the project would have noise impacts, then potential abatement measures must be considered. Noise abatement measures that are determined to be reasonable and feasible at the time of final design are incorporated into the project

plans and specifications. This document discusses noise abatement measures that would likely be incorporated in the project.

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

Regulatory Setting – Railroad Noise and Vibration

Federal Railroad Administration/FTA Noise Impact Criteria – Rail Operations

FTA has published and implemented impact assessment procedures and criteria pertaining to noise. Noise and vibration impacts associated with the proposed project are based on guidance in the FTA Manual (FTA 2018). The FTA Manual is used for rail projects where conventional train speeds are below 90 miles per hour (mph) (Federal Railroad Administration [FRA] 2012). As such, FRA generally uses noise and vibration guidance from the FTA Manual.

The FTA Manual describes noise impact criteria that have been adopted to assess noise contributions and potential impacts on the existing environment from rapid transit sources. The noise impact criteria defined in the FTA Manual are based on an objective that calls for maintaining a noise environment that is considered acceptable for noise-sensitive land uses.

For assessing noise from transit operations, FTA defines three land use categories.

Category 1—Tracts of land where quiet is an essential element of their intended purpose, such as outdoor amphitheaters, concert pavilions, and national historic landmarks with significant outdoor use.

Category 2—Residences and buildings where people normally sleep, including homes, hospitals, and hotels.

Category 3—Institutional land uses (e.g., schools, places of worship, libraries) that are typically available during daytime and evening hours. Other uses in this category can include medical offices, conference rooms, recording studios, concert halls, cemeteries, monuments, museums, historical sites, parks, and recreational facilities.

Noise exposure values are reported as the day-night average sound level (L_{dn}) for residential land uses (Category 2) or the equivalent sound level over a 1-hour time period L_{eq} (1 hour) for other land uses (Categories 1 and 3). Commercial and industrial uses are not included in the vast majority of cases because they are generally compatible with higher noise levels. Exceptions include commercial land uses with a feature that receives significant outdoor use, such as a playground, or uses that require quiet as an important part of their function, such as recording studios.

In the FTA Manual (FTA 2018), the noise impact criteria for operation of rapid transit facilities consider a project's contribution to existing noise levels using a sliding scale according to the land uses affected. The criteria correspond to heightened community annoyance due to the introduction of a new transit facility relative to existing ambient noise conditions.

Noise impacts are assessed by comparing existing outdoor exposures with future project-related outdoor noise levels, as illustrated in Figure 2.21. The criterion for each degree of impact is based on a sliding scale that is dependent on the existing noise exposure and the increase in noise exposure due to a project.

The noise impact categories are as follows:

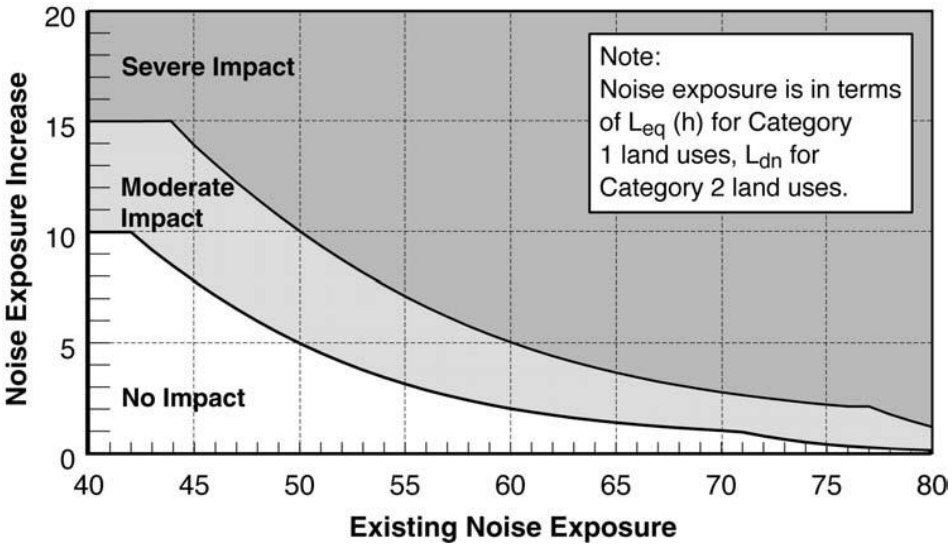
No Impact—A project, on average, would result in an insignificant increase in the number of instances where people are highly annoyed by new noise.

Moderate Impact—The change in cumulative noise is noticeable to most people but may not be enough to cause strong adverse community reactions.

Severe Impact—A significant percentage of people would be highly annoyed by the noise, perhaps resulting in vigorous community reaction.

Impact curves based on community increases in cumulative noise exposure relative to existing conditions are shown in Figure 2.21. The sliding scale for allowable cumulative noise increase recognizes that people who are already exposed to high levels of noise in the ambient environment are expected to tolerate different levels of increase in noise in their community.

Figure 2.21. Increase in Cumulative Noise Levels Allowed by FTA Criteria



Source: FTA 2018
Note: Noise exposure increase impact curves are adjusted by +5 decibels (dB) for Category 3 land uses.

FTA Vibration Impact Criteria

General Vibration Effects

The FTA vibration impact criteria for the land use categories described above are shown in Table 2.23. The criteria are based on the frequency of events and are related to ground borne vibration that can cause human annoyance or interfere with the use of vibration-sensitive equipment. The criteria for acceptable ground borne vibration are based on the maximum levels for a single event (Lmax) and expressed in terms of root mean square (RMS) velocity levels.

Table 1.23 Ground borne Vibration Impact Criteria for General Assessment (VdB re 1 micro-inch/sec)

Land Use Category	Frequent Events[a]	Occasional Events[b]	Infrequent Events[c]
Category 1: Buildings where vibration would interfere with interior operations.	65 VdB[d]	65 VdB[d]	65 VdB[d]
Category 2: Residences and buildings where people normally sleep.	72 VdB	75 VdB	80 VdB
Category 3: Institutional land uses with primarily daytime use.	75 VdB	78 VdB	83 VdB

Source: FTA 2018
Note: VdB is vibration velocity level in decibels.
[a] *Frequent events* are defined as more than 70 vibration events from the same source each day. Most rapid transit projects fall into this category.

[b] *Occasional events* are defined as between 30 and 70 vibration events from the same source each day. Most commuter trunk lines have operations in this range.
[c] *Infrequent events* are defined as fewer than 30 vibration events of the same kind each day. This category includes most commuter rail branch lines.
[d] This criterion limit is based on levels that are acceptable for most moderately sensitive equipment, such as optical microscopes. Vibration-sensitive manufacturing or research would require detailed evaluation to define the acceptable vibration levels. Ensuring lower vibration levels in a building often requires special design of the heating, ventilation, and air-conditioning systems and stiffened floors.

Potential Damage to Fragile Buildings

FTA analysis guidelines call for an investigation of the potential for vibration-induced damage to "fragile" or "extremely fragile" buildings (FTA 2018). Damage to a building is possible (but not necessarily probable) if groundborne vibration levels exceed the following criteria.

- A 0.20-inch-per-second peak particle velocity (PPV) (approximately 100 vibration velocity level in decibels [VdB]) for non-engineered timber and masonry buildings.
- A 0.12-inch-per-second PPV (approximately 95 VdB) for buildings that are extremely susceptible to vibration damage.

Groundborne Noise

At higher frequencies, groundborne vibration can be perceived as a noise source. At sufficiently high amplitudes, the propagation of vibration waves through the ground can couple with building elements and cause them to vibrate at a frequency that is audible to the human ear. For example, groundborne noise could rattle windows, walls, or other items that are coupled to building surfaces. However, groundborne noise is normally not a consideration when rail transit sources are at grade and groundborne noise generally becomes an important consideration for subterranean rail transit or other projects in which part of the rail alignment includes a tunnel. Therefore, impacts from groundborne noise are not anticipated for the proposed project.

Affected Environment

Two studies were conducted for the traffic noise and vibration noise impacts associated with this project; a Noise Study Report (NSR) addressing traffic noise and a Railroad Noise and Vibration Technical Report were completed in October 2024 for the proposed project. They are described separately.

Affected Environment

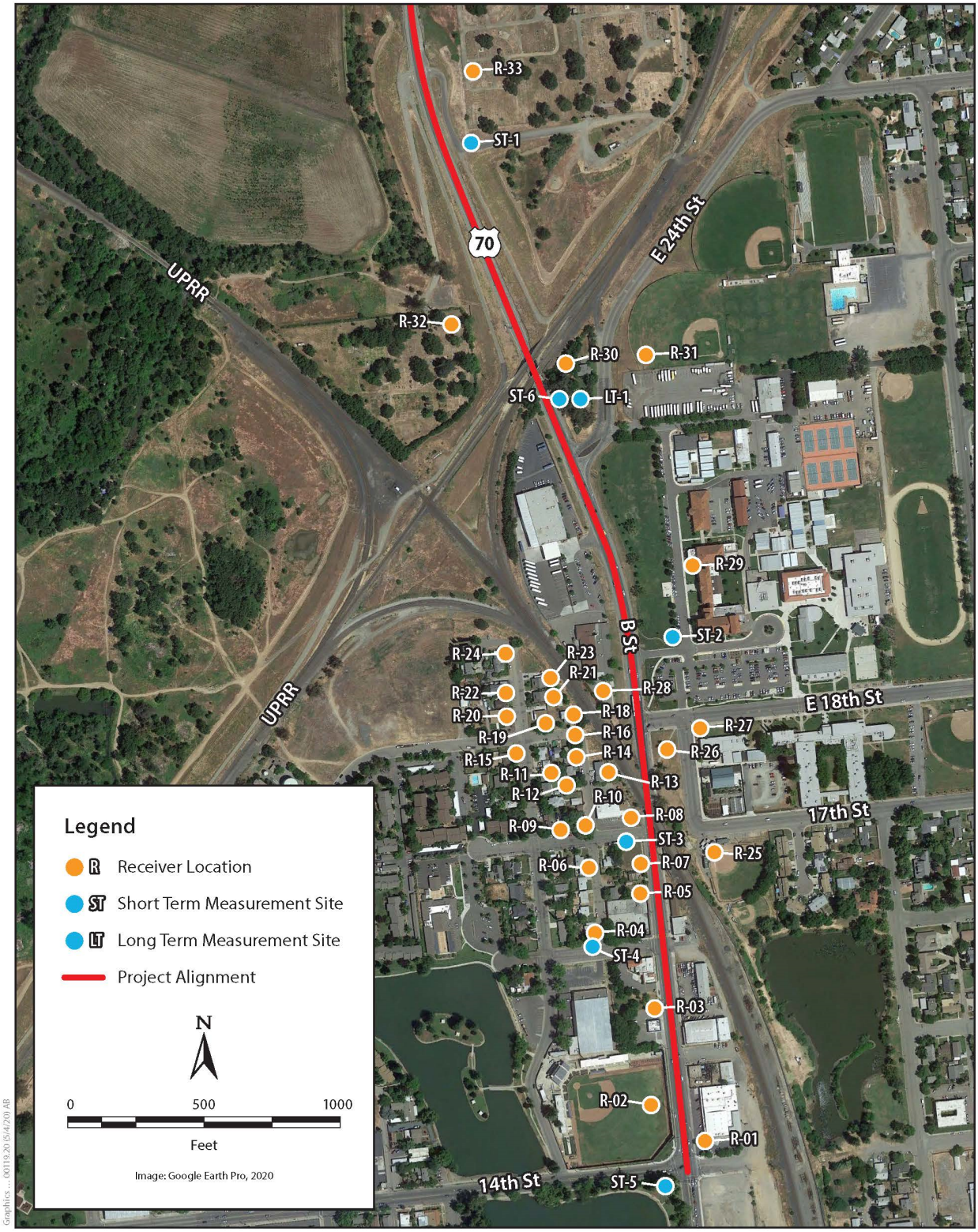
Noise (Traffic)

In the NSR, existing and future build and no-build alternatives were analyzed and addresses whether future build noise levels approach or exceed applicable noise abatement criteria (NAC) at any outdoor areas of frequent human use and, if so, whether noise abatement needs to be considered.

As stated in the Protocol, noise abatement is considered only where frequent outdoor human use occurs and where a reduced noise level would be beneficial. In general, an outdoor area of frequent human use is an area where people are exposed to traffic noise for an extended period of time on a regular basis. Accordingly, a noise impact assessment focuses on locations with defined outdoor activity areas, such as residential backyards, common-use areas at multifamily residences, or active sporting areas.

A field investigation was conducted to identify land uses that could be subject to traffic and construction noise impacts from the proposed project. Land uses in the project area were categorized by land use type, activity category as defined in Table 2.22 (shown in Regulatory Setting) and the extent of frequent human use. Although all developed land uses are evaluated in this analysis, the focus of this impact analysis is on locations of frequent human use that would benefit from a lowered noise level, such as locations with defined outdoor activity areas. For this project, the potentially affected noise-sensitive uses with defined outdoor activity areas consist of residences (Activity Category B), cemeteries (Activity Category C), a park (Activity Category C), athletic fields (Activity Category C), and school exterior areas (Activity Category C). Noise monitoring and modeling locations are shown in Figure 2.22.

Figure 2.22. Noise Measurement and Prediction Locations



Field Measurement Procedures

Six short-term measurement locations were selected to represent frequent outdoor use areas along the project alignment. Additionally, long-term measurements were conducted at one location to capture the diurnal traffic noise level pattern in the project area. Short-term and long-term measurement locations were also used as noise prediction model locations. Additional locations were selected as prediction sites to fully characterize the noise environment at outdoor use areas along the project alignment.

Short-term Measurements

Short-term noise monitoring took place at various sites within the project area, they are shown in Table 2.24; the table lists the site; location; primary sound source; measurement start time, date, and duration; and measured overall L_{eq}. Noise monitors were set up to collect one-minute L_{eq} values at each site, to exclude noise sources not representative of ambient conditions if they occurred during the measurement interval (such as barking dogs at site B Street and 24th Street (ST-6) and horns at Cemetery Road(ST-1)). One-minute L_{eq} data were edited for these events and later summed to calculate overall L_{eq} values. Field data sheets and compiled data from noise monitors for each of the short-term monitoring sites are available in the Noise Study appendices.

Short-term noise measurements and respective traffic counts at Cemetery Road through B Street and 24th Street (ST-6) were conducted to characterize the noise environment adjacent to the alignment and to calibrate the TNM model calculations using traffic video counts that were conducted simultaneously with noise measurements. Traffic on B Street/SR 70 was observed to be a dominant source of noise at all short-term sites. Trains passing by on UPRR track were intermittently audible during periods of short-term monitoring but did not contribute significantly during the intervals when noise levels were recorded.

As the data shows, traffic on SR 70 was clearly the dominant source of noise at all sites, and, while other sources were audible, they did not contribute significantly to overall noise levels. At site Elm Street and Lakeside Court (ST-3), reflected noise from the tunnel opening at Marysville UP was distinctly noticeable at the measurement site location. At site B Street and 24th Street (ST-6), noise from Binney UP was not noticeable above normal traffic levels.

Table 2.24. Short-term Measurements

Site	Location	Primary Source(s)	Date/Time	Duration of Measurement (minutes)	Measured L_{eq} (dBA)
ST-1	Cemetery Road	Traffic on SR 70, train horn, wheel squeal from trains, construction from Simmerly slough project	March 11, 3:10 p.m.	15	61.8
ST-2	B Street/18th Street	Traffic on SR 70, small aircraft	March 12, 9:43 a.m.	15	60.6
ST-3	Elm Street/Lakeside Court	Traffic on SR 70, noticeable reflected noise from tunnel opening of Marysville underpass	March 12, 10:30 a.m.	15	66.9
ST-4	Elm Street/16th Street	Traffic on SR 70, truck backup alarm	March 12, 11:23 a.m.	15	58.0
ST-5	B Street/14th Street	Traffic on SR 70 and 14th Street	March 12, 12:09 p.m.	15	67.8
ST-6	B Street/24th Street	Traffic on SR 70, construction from Simmerly slough project, train horn	March 12, 2:29 p.m.	30	67.6

Note: dBA = A-weighted decibels. L_{eq} = equivalent sound level. SR = State Route.

Long-term Measurements

The purpose of the long-term noise measurement was to characterize the changes in traffic noise levels within the project area throughout a typical day. Long-term sound level data was collected from Wednesday, March 11 to Thursday, March 12, 2020. The long-term monitoring site was conducted at one location (LT-1) and is shown in the Table 2.22 map. LT-1 was located in the backyard of a residence at the northeast corner of B Street and 24th Street. The site was located about 70 feet east of SR 70 and about 150 feet south from the nearest UPRR track. The worst-hour noise level measured was 83.8 dBA L_{eq}(h) during the 6:00 a.m. hour. The higher noise levels between the hours of 10:00 p.m. and 6:00 a.m. suggest a high level of train activity during nighttime hours, including use of train horns.

Existing Modeled Noise Levels

The existing conditions worst noise hour traffic noise levels range from 44 to 72 dBA L_{eq}(h). The lower levels at some of these sites are due to the existing levee that supports UPRR track, which provides substantial terrain shielding between receivers and SR 70. However, train noise is a significant contributor to noise levels at these sites. Existing levels have a maximum value of 72 dBA L_{eq}(h) at residences in the

project area, which would approach or exceed the NAC for Activity Category B land uses.

A discussion of train noise and vibration from UPRR tracks is discussed in the following sub-section, *SR 70 Binney Junction Roadway Rehabilitation and Complete Streets Project Railroad Noise and Vibration Technical Report* (California Department of Transportation 2024). More detailed data is located in the NSR.

Affected Environment

Noise and Vibration (Railroad)

A Railroad Noise and Vibration Technical Analysis was conducted October 2024 for this project. A new study was prepared in October 2024 to address shifts in alignments due to various design constraints. The analysis includes a description of existing conditions, as well as assumptions and methodologies used in the evaluation. Noise and vibration impacts that may potentially occur due to the proposed project are evaluated based on applicable regulations and guidance and are discussed in Environmental Consequences Section. To minimize noise and vibration impacts, the report identifies avoidance and minimization measures and those are discussed in the Avoidance and Minimization Section.

This analysis of potential noise and vibration effects from the track realignment was conducted in accordance with guidelines provided in the Federal Transit Administration's (FTA) *Transit Noise and Vibration Impact Assessment Manual* (FTA Manual) (2018). The FTA Manual specifies that noise impact criteria are applied to compare future project noise levels to existing noise levels, rather than future project noise with projections of future no-project noise exposure. Existing noise levels were obtained through continuous monitoring in residential areas adjacent to the rail corridor. Temporary noise levels from heavy equipment use during reconstruction of the bridges and elevated structures are also discussed in Construction Impacts Section.

The impact analysis in this report focuses on Category 2 and Category 3 receptors, specifically residences, hotels, hospitals, senior housing, and schools. No Category 1 receptors were identified in the area. Noise measurement locations were selected for the sensitive land uses nearest to the rail corridor. The existing noise environment in the area was characterized during long-term noise monitoring in residential neighborhoods adjacent to the existing UPRR line.

There would be no changes to freight train volumes, including use of the interchange transition curves under future conditions. While FTA guidance recommends categorizing freight trains as frequent events, the transition curve at Track 685 would be reconstructed on a rebuilt levee under Alternatives 1 and 2 and would be used very infrequently – an average of two times per year based on current data. For this reason, freight train passby events on Track 685 are categorized as "infrequent events."

Noise Monitoring Survey

Long-term monitoring data was collected at two locations, on March 11-12, 2020; East 24th Street (LT-A) and the other at the corner of Elm Street and 18th Street (LT-B). The purpose of long-term measurements was to quantify the existing ambient L_{dn} and the trend in sound levels throughout a 24-hour period based on train activity at the junction of the north-south and east-west UPRR corridors. For the long-term measurements, sound-level meters were installed securely in public locations with microphones positioned approximately 8 to 10 feet above the ground. Measured L_{dn} values were in the range of 69.8 to 70.6 L_{dn}

During field observations, train events occurred frequently, at an average rate of about one per hour. Trains were observed to travel at speeds of approximately 10 to 25 mph. Trains included one to three locomotives and up to 100 rail cars. Trains were the primary source of noise at site LT-A, with traffic noise on SR 70 also significantly contributing to noise levels at this location. Train noise was the dominant noise source at site LT-B.

Figure 2.23 Modeled Noise and Vibration Receptors, Alternatives 1

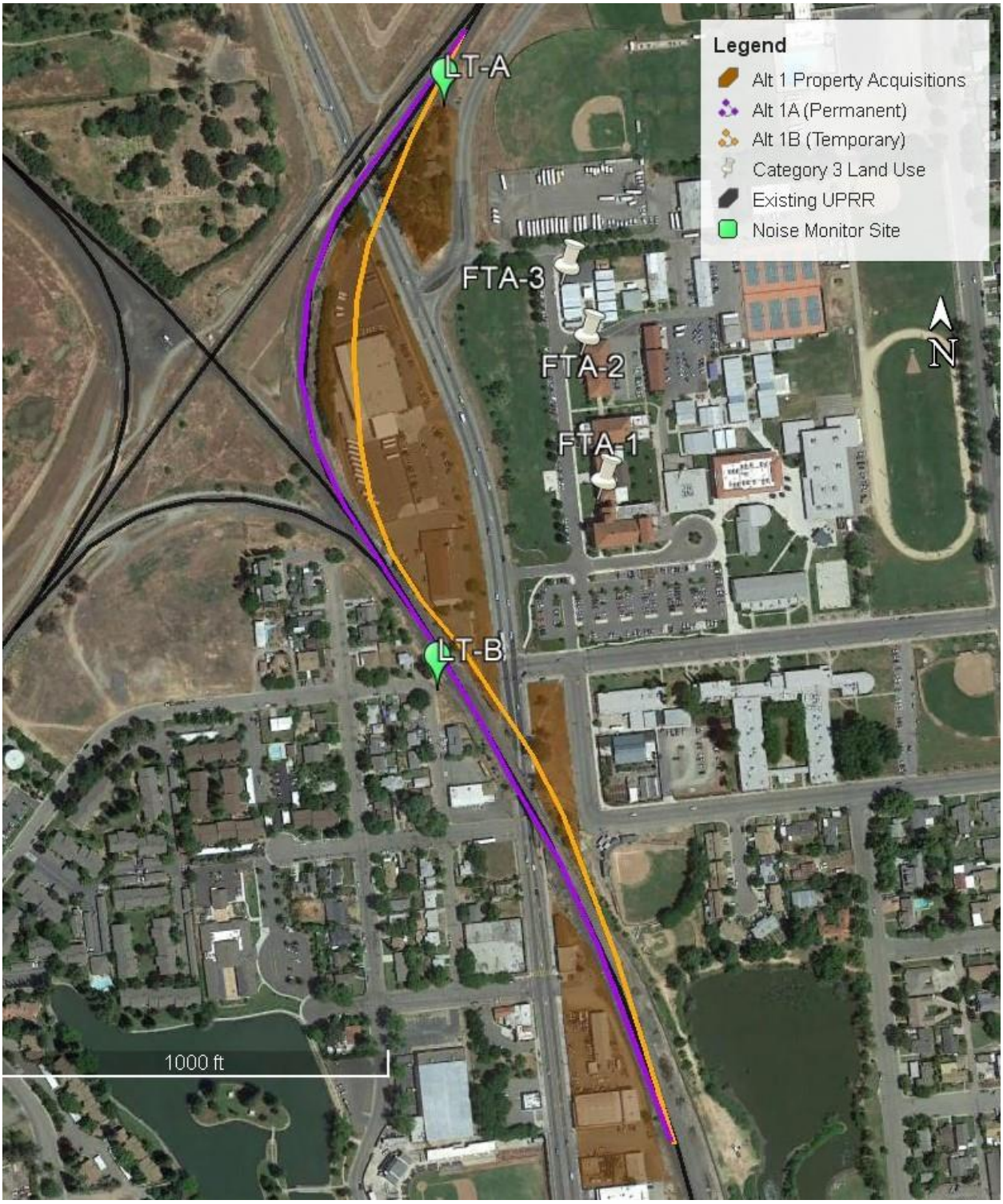
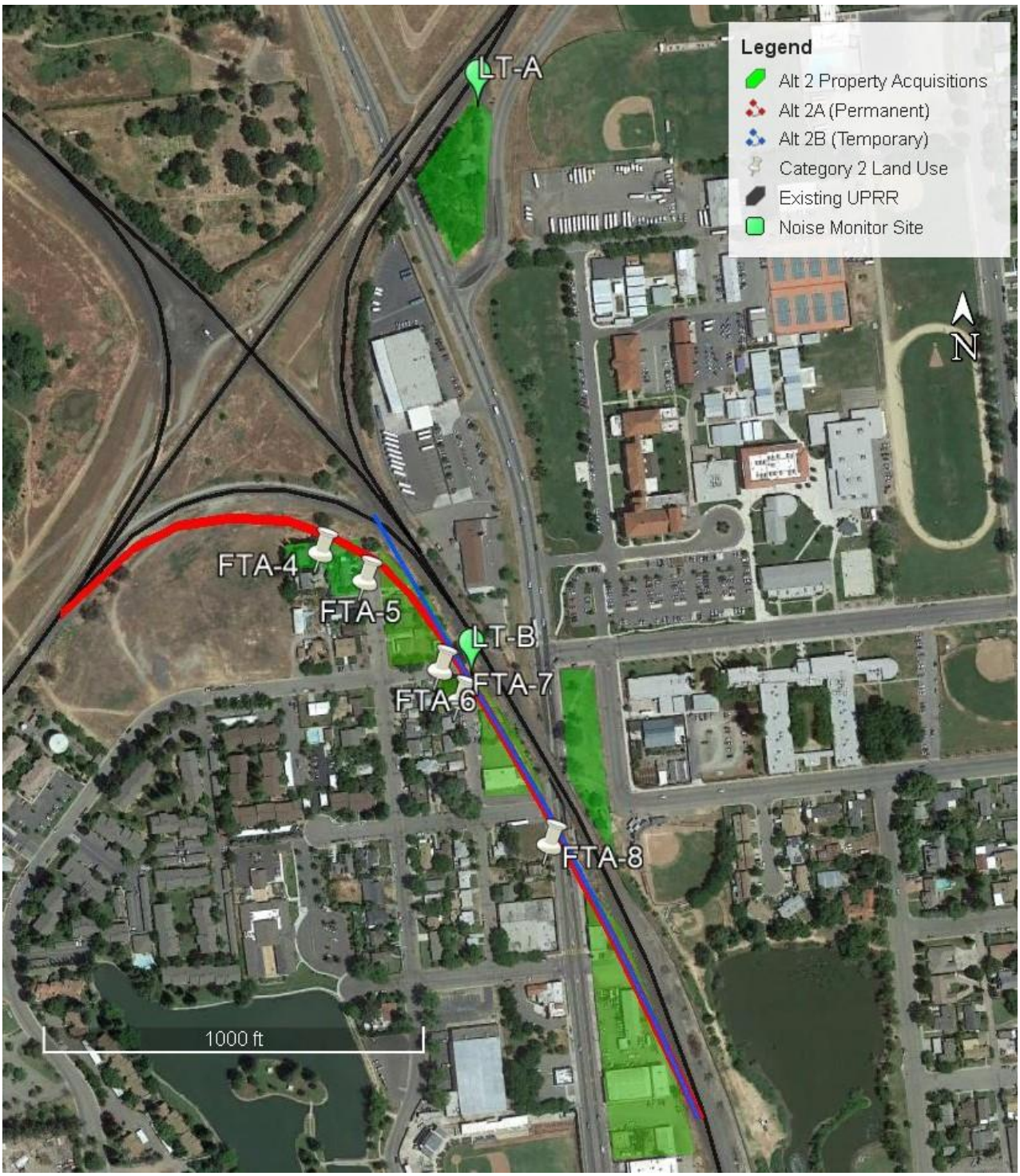


Figure 2.24. Modeled Noise and Vibration Receptors, Alternative 2



Environmental Consequences –

There are three types of “noise” impacts regarding this project. First there are operational impacts which occur after completion of the project, these are traffic noise and vibration noise from adjacent RR train activity and are explained in this section. The third noise impact is temporary and during construction, construction noise impacts are explained in the Construction Section.

Noise (Traffic)

Type I Project

FHWA defines a Type I project as a proposed federal or federal-aid highway project for the construction of a highway at a new location or the physical alteration of an existing highway that significantly changes either the horizontal or vertical alignment of the highway. Type I projects include those that create a completely new noise source, as well as those that increase the volume or speed of traffic or move the traffic closer to a receptor. Type I projects include those that add, for example, an interchange, ramp, auxiliary lane, or truck-climbing lane to an existing highway or widen an existing ramp by a full lane width for its entire length. Projects that are unrelated to increased noise levels, such as striping, lighting, signing, and landscaping projects, are not considered Type I projects. The *SR 70 Binney Junction Roadway Rehabilitation and Complete Streets Project* is considered a Type I project because it would increase the capacity of an arterial roadway by adding two though lanes.

Predicted design-year build condition traffic noise levels are compared with existing conditions and design-year no-build conditions. The comparison with existing conditions is analyzed to identify traffic noise impacts under 23 CFR 772. The comparison of no-build conditions indicates the direct effect of the project.

For existing conditions, traffic noise levels are predicted to be in the range of 44 to 72 dBA L_{eq}(h). Under no-build conditions, traffic noise levels are predicted to range from 46 to 74 dBA L_{eq}(h). Also, under the design-year build condition, highest hourly traffic noise levels at outdoor areas of frequent human use would be up to 74 dBA L_{eq}(h) at residential use.

Predicted traffic noise levels under the design-year build condition would result in increases of up to 7 dBA compared to existing conditions. An increase of this magnitude would be less than the threshold of impact for a substantial increase in traffic noise levels (12 dBA above existing levels). Therefore, there would be no impacts due to a project-related increase in traffic noise.

Future traffic noise levels under design-year build conditions are predicted to approach or exceed the NAC at outdoor areas of frequent human use associated with Activity Category B and Activity Category C land uses in the project area. As such, traffic noise impacts are predicted to occur due to operation of this project, and noise abatement must be considered. A Noise Abatement Analysis was conducted to determine if abatement is feasible or not.

According to 23 CFR 772(13)(c), federal funding may be used for the following abatement measures:

- Construction of noise barriers, including acquisition of property rights, either within or outside the highway right-of-way. Landscaping is not a viable noise abatement measure.
- Traffic management measures including, but not limited to, traffic control devices and signage for prohibition of certain vehicle types, time-use restrictions for certain vehicle types, modified speed limits, and exclusive lane designations.
- Alteration of horizontal and vertical alignments.
- Acquisition of real property or interests therein (predominantly unimproved property) to serve as a buffer zone to preempt development that would be adversely impacted by traffic noise.
- Noise insulation of Activity Category D land use facilities. Post-installation maintenance and operational costs for noise insulation are not eligible for federal-aid funding.

In accordance with 23 CFR 772, noise abatement is considered only for impacted areas of frequent human use that would benefit from a lower noise level. The following areas were evaluated for noise abatement.

Ellis Lake Park –

Noise levels are predicted to approach or exceed the NAC for a location within a park (Activity Category C land use) facing B Street at the corner of 14th Street. Noise levels are predicted to be up to 70 dBA $L_{eq}(h)$ at this location. This land use is represented by receiver ST-1, shown in Table C-1 in Appendix C. The single picnic table next to the lake (ST-5) would not be considered a defined area of frequent human use because this is not an “area of clustered tables” as stated in the Protocol. Trails and other features surrounding the lake would be considered transitory and not frequent use. As such, a barrier was not evaluated further for this location.

B Street/Lakeside Court –

Noise levels are predicted to approach or exceed the NAC for three residences (Activity Category B land use) facing B Street at the corner of Lakeside Court. Noise levels are predicted to be up to 74 dBA $L_{eq}(h)$ at these locations. These land uses are represented by receivers R-05, R-07, and ST-3, shown in Table C-1 in Appendix C. However, a noise barrier would not be a feasible noise abatement option for these receivers because of driveway and sidewalk access requirements along B Street. As such, a barrier was not evaluated further.

B Street/ 18th Street –

Noise levels are predicted to approach or exceed the NAC for a school exterior area, a park trail, and an outdoor area associated with a youth center (Activity Category C land uses) facing B Street near 18th Street. Noise levels are predicted to be up to 74 dBA $L_{eq}(h)$ at these locations. These land uses are represented by receivers R-26, R-27, and R-28, shown in Table C-1 in Appendix C. These areas include areas of outdoor use but

are not considered areas of frequent human use. The park trail (R-26) is a transitory use area but is not a defined area of frequent human use. The school exterior area used in the model (R-27) is an outdoor area that faces B Street but does not include a defined area of frequent outdoor use. The youth center (R-28) includes a paved outdoor play area, which features a four-square court and no other apparent outdoor use features—as such, this was not assumed to be an area of frequent use. Because none of these locations would be considered areas of frequent outdoor use, a barrier was not evaluated further for these receivers.

Cemetery Road –

Noise levels are predicted to approach or exceed the NAC at a location near a cemetery (Activity Category C land use) facing SR 70 at Cemetery Road. Noise levels are predicted to be up to 68 dBA L_{eq}(h) at this location. This land use is represented by receivers R-33 and ST-1, shown in Table C-1 in Appendix C. The measurement location at ST-1 was used for calibration of the model and not inside the cemetery. Receiver R-33 was located at an area of the cemetery nearest to SR 70, and the predicted noise level was found to be 61 dBA L_{eq}(h) at this location, which would not approach or exceed the NAC for Activity Category C land use. The lower noise level is due to significant terrain shielding, as the cemetery is below grade relative to SR 70. As such, a barrier was not evaluated further.

Environmental Consequences –

Noise (Railroad) - Impacts

Operation Impact Analysis

Noise level predictions for train operations are shown for each of the alternatives in Table 2.25 and Table 2.26. The analysis focuses on the noise level increase resulting from the realigned track with respect to receptor locations. The noise level increase relative to existing conditions is the basis for the FTA noise impact criteria, as discussed earlier. Receptors used in the analysis are shown in Figure 2 for Alternatives 1 and Figure 3 for Alternatives 2.

Receptors used in the analysis are shown in Figure 2.23 for Alternative 1 and Figure 2.24 for Alternative 2.

Alternative 1

Noise exposure from the proposed project is predicted to result in no impacts under Alternative 1 (Table 2.25). The location of greatest increase is an apartment building on Clement Way (S09), which would have an increase of 1.3 dBA due to the shift in RR track location under this alternative.
Noise modeling results for the Alternative 1 are depicted graphically in Figure 2.25, comparing the predicted future increase in noise exposure with existing levels, in the context of FTA impact curves for moderate and severe impact.

Alternative 2

Noise exposure from the proposed project is predicted to result in moderate impacts at 6 residential buildings under Alternative 2, including an apartment building (S10) and 5 single-family residences (S12, S18, S19, S21, and S25) as shown in Table 2.26. No severe noise impacts are predicted. The location of greatest increase is a single-family residence on Elm Street (S21), which would have an increase of 2.9 dBA due to the shift in RR track location under this alternative.

Noise modeling results for the Alternative 2 are depicted graphically in Figure 2.26, comparing the predicted future increase in noise exposure with existing levels, in the context of FTA impact curves for moderate and severe impact. As shown in the figure, the 8 receptor points lie above the threshold curve for moderate impact.

Figure 2.25. Alternative 1 Noise Exposure Increase from the Proposed Project

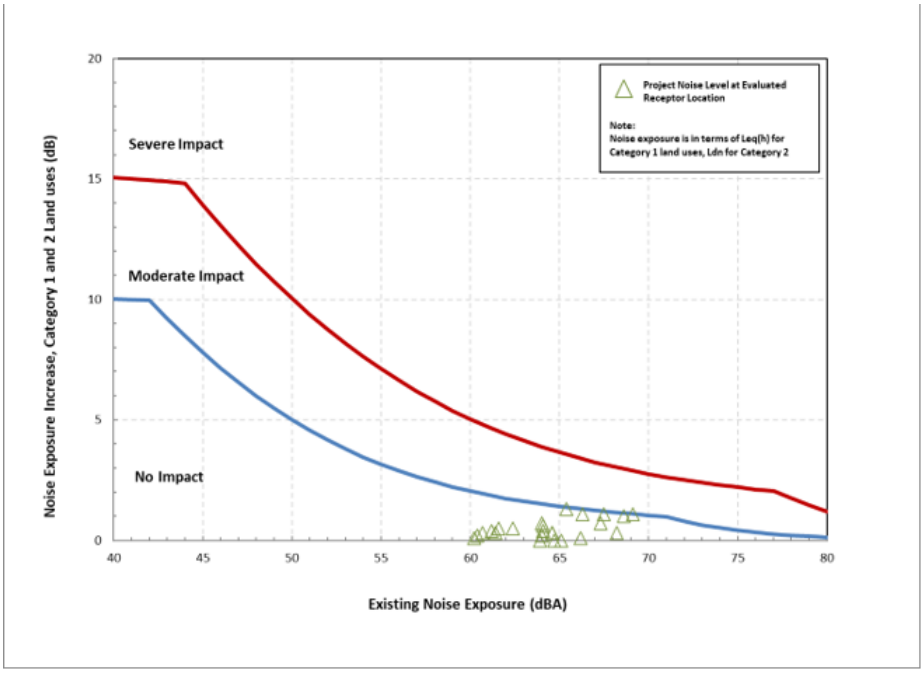


Figure 2.26. Alternative 2 Noise Exposure Increase from the Proposed Project

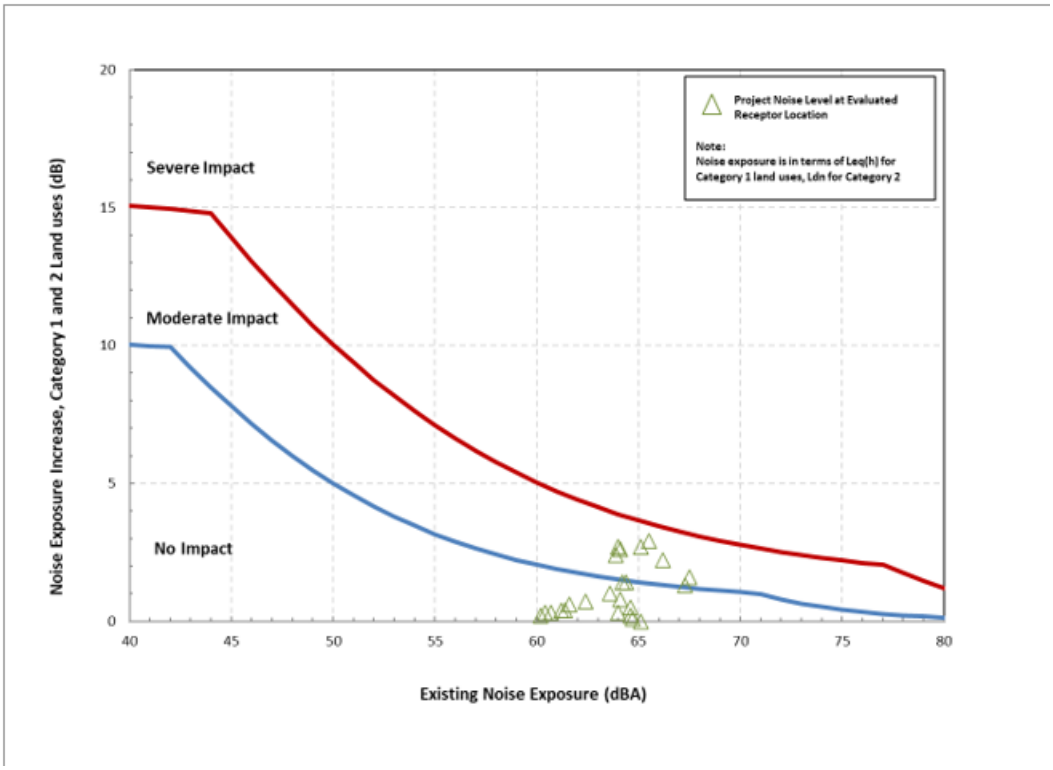


Table 2.25. Train Noise Impact Assessment, Alternative 1

Receptor ID	Location/Cross Streets	Land Use	Existing Ambient Level, L_{dn}	Future Noise Level, L_{dn}	Increase, L_{dn}	Moderate Impact Increase Threshold, L_{dn}	Severe Impact Increase Threshold, L_{dn}	Impact Category
S01	Ellis Lake Drive	Residential (Category 2)	65.1	65.1	0.0	+ 1.4	+ 3.6	No Impact
S02	Ellis Lake Drive	Residential (Category 2)	64.7	64.7	0.0	+ 1.4	+ 3.6	No Impact
S03	Ellis Lake Drive	Residential (Category 2)	64.6	64.9	+ 0.3	+ 1.4	+ 3.6	No Impact
S04	Ellis Lake Drive	Residential (Category 2)	64.6	64.9	+ 0.3	+ 1.4	+ 3.6	No Impact
S05	Ellis Lake Drive	Residential (Category 2)	64.0	64.2	+ 0.2	+ 1.5	+ 3.9	No Impact
S06	Ellis Lake Drive	Residential (Category 2)	67.3	68.0	+ 0.7	+ 1.2	+ 3.2	No Impact
S07	Ellis Lake Drive	Residential (Category 2)	67.5	68.6	+ 1.1	+ 1.2	+ 3.1	No Impact
S08	Ellis Lake Drive	Residential (Category 2)	64.1	64.7	+ 0.6	+ 1.5	+ 3.9	No Impact
S09	Clement Way	Residential (Category 2)	65.4	66.7	+ 1.3	+ 1.4	+ 3.6	No Impact
S10	Clement Way	Residential (Category 2)	64.0	64.7	+ 0.7	+ 1.5	+ 3.9	No Impact
S11	Clement Way/C Street	Residential (Category 2)	66.3	67.4	+ 1.1	+ 1.3	+ 3.4	No Impact
S12	C Street	Residential (Category 2)	64.1	64.5	+ 0.4	+ 1.5	+ 3.9	No Impact
S13	C Street	Residential (Category 2)	69.1	70.1	+ 1.0	+ 1.1	+ 2.9	No Impact
S14	C Street	Residential (Category 2)	68.2	68.5	+ 0.3	+ 1.2	+ 3.1	No Impact
S15	18th Street/C Street	Residential (Category 2)	66.2	66.3	+ 0.1	+ 1.3	+ 3.4	No Impact
S16	18th Street	Residential (Category 2)	68.8	68.5	- 0.3	+ 1.1	+ 2.9	No Impact
S17	18th Street/Elm Street	Residential (Category 2)	66.4	66.0	- 0.4	+ 1.3	+ 3.4	No Impact
S18	18th Street	Residential (Category 2)	65.1	64.8	- 0.3	+ 1.4	+ 3.6	No Impact
S19	18th Street/C Street	Residential (Category 2)	63.9	63.9	0.0	+ 1.5	+ 3.9	No Impact
S20	Elm Street	Residential (Category 2)	71.2	69.3	- 1.9	+ 1.0	+ 2.6	No Impact
S21	Elm Street	Residential (Category 2)	65.5	64.8	- 0.7	+ 1.3	+ 3.4	No Impact

Receptor ID	Location/Cross Streets	Land Use	Existing Ambient Level, L_{dn}	Future Noise Level, L_{dn}	Increase, L_{dn}	Moderate Impact Increase Threshold, L_{dn}	Severe Impact Increase Threshold, L_{dn}	Impact Category
S22	Elm Street	Residential (Category 2)	64.2	63.6	- 0.6	+ 1.5	+ 3.9	No Impact
S23	17th Street/Elm Street	Community Center (Category 3)	71.2	68.6	- 2.6	+ 1.0	+ 2.6	No Impact [1]
S24	17th Street/Elm Street	Residential (Category 2)	64.4	63.4	- 1.0	+ 1.5	+ 3.9	No Impact
S25	B Street	Residential (Category 2)	66.2	64.8	- 1.4	+ 1.3	+ 3.4	No Impact
S26	Elm Street	Residential (Category 2)	63.6	62.8	- 0.8	+ 1.5	+ 3.9	No Impact
S27	B Street	Commercial [2]	66.4	65.0	- 1.4	N/A 2	N/A 2	N/A [2]
E01	B Street	Community Center (Category 3)	68.6	69.6	+ 1.0	+ 1.1	+ 2.9	No Impact [1]
E02	B Street	Commercial [2]	67.0	69.2	+ 2.2	N/A [2]	N/A [2]	N/A [2]
E03	East 24th Street	Vacant/Commercial [2]	66.3	69.1	+ 2.8	N/A [2]	N/A [2]	N/A [2]
E04	East 24th Street/Triplett Way	Residential (Category 2)	62.4	62.9	+ 0.5	+ 1.7	+ 4.4	No Impact
E05	East 24th Street/Triplett Way	Residential (Category 2)	61.6	62.1	+ 0.5	+ 1.7	+ 4.4	No Impact
E06	Triplett Way	Residential (Category 2)	61.4	61.7	+ 0.3	+ 1.9	+ 4.7	No Impact
E07	Triplett Way	Residential (Category 2)	61.2	61.6	+ 0.4	+ 1.9	+ 4.7	No Impact
E08	Triplett Way	Residential (Category 2)	60.7	61.0	+ 0.3	+ 1.9	+ 4.7	No Impact
E09	Triplett Way	Residential (Category 2)	60.4	60.6	+ 0.2	+ 2.0	+ 5.0	No Impact
E10	Triplett Way	Residential (Category 2)	60.2	60.3	+ 0.1	+ 2.0	+ 5.0	No Impact

Note: L_{dn} is day-night level.
[1] The more conservative FTA threshold in terms of Ldn for Category 2 land use is assumed for Category 3 receptors.
[2] FTA does not assign an impact threshold for commercial use without an associated noise-sensitive purpose.

Table 2.26. Train Noise Impact Assessment, Alternative 2

Receptor ID	Location/Cross Streets	Land Use	Existing Ambient Level, L_{dn}	Future Noise Level, L_{dn}	Increase, L_{dn}	Moderate Impact Increase Threshold, L_{dn}	Severe Impact Increase Threshold, L_{dn}	Impact Category
S01	Ellis Lake Drive	Residential (Category 2)	65.1	65.1	0.0	+ 1.4	+ 3.6	No Impact
S02	Ellis Lake Drive	Residential (Category 2)	64.7	64.8	+ 0.1	+ 1.4	+ 3.6	No Impact
S03	Ellis Lake Drive	Residential (Category 2)	64.6	64.9	+ 0.3	+ 1.4	+ 3.6	No Impact
S04	Ellis Lake Drive	Residential (Category 2)	64.6	64.9	+ 0.3	+ 1.4	+ 3.6	No Impact
S05	Ellis Lake Drive	Residential (Category 2)	64.0	64.2	+ 0.2	+ 1.5	+ 3.9	No Impact
S06	Ellis Lake Drive	Residential (Category 2)	67.3	68.0	+ 0.7	+ 1.2	+ 3.2	No Impact
S07	Ellis Lake Drive	Residential (Category 2)	67.5	68.6	+ 1.1	+ 1.2	+ 3.1	No Impact
S08	Ellis Lake Drive	Residential (Category 2)	64.1	64.7	+ 0.6	+ 1.5	+ 3.9	No Impact
S09	Clement Way	Residential (Category 2)	65.4	N/A [1]	N/A [1]	+ 1.4	+ 3.6	N/A [1]
S10	Clement Way	Residential (Category 2)	64.0	66.7	+ 2.7	+ 1.5	+ 3.9	Moderate Impact
S11	Clement Way/C Street	Residential (Category 2)	66.3	N/A [1]	N/A [1]	+ 1.3	+ 3.4	N/A [1]
S12	C Street	Residential (Category 2)	64.1	66.7	+ 2.6	+ 1.5	+ 3.9	Moderate Impact
S13	C Street	Residential (Category 2)	69.1	N/A [1]	N/A [1]	+ 1.1	+ 2.9	N/A [1]
S14	C Street	Residential (Category 2)	68.2	N/A [1]	N/A [1]	+ 1.2	+ 3.1	N/A [1]
S15	18th Street/C Street	Residential (Category 2)	66.2	N/A [1]	N/A [1]	+ 1.3	+ 3.4	N/A [1]
S16	18th Street	Residential (Category 2)	68.8	N/A [1]	N/A [1]	+ 1.1	+ 2.9	N/A [1]
S17	18th Street/Elm Street	Residential (Category 2)	66.4	N/A [1]	N/A [1]	+ 1.3	+ 3.4	N/A [1]
S18	18th Street	Residential (Category 2)	65.1	67.8	+ 2.7	+ 1.4	+ 3.6	Moderate Impact
S19	18th Street/C Street	Residential (Category 2)	63.9	66.3	+ 2.4	+ 1.5	+ 3.9	Moderate Impact

Receptor ID	Location/Cross Streets	Land Use	Existing Ambient Level, L_{dn}	Future Noise Level, L_{dn}	Increase, L_{dn}	Moderate Impact Increase Threshold, L_{dn}	Severe Impact Increase Threshold, L_{dn}	Impact Category
S20	Elm Street	Residential (Category 2)	71.2	N/A [1]	N/A [1]	+ 1.0	+ 2.6	N/A [1]
S21	Elm Street	Residential (Category 2)	65.5	68.4	+ 2.9	+ 1.3	+ 3.4	Moderate Impact
S22	Elm Street	Residential (Category 2)	64.2	65.6	+ 1.4	+ 1.5	+ 3.9	No Impact
S23	17th Street/Elm Street	Community Center (Category 3)	71.2	N/A [1]	N/A [1]	+ 1.0	+ 2.6	N/A [1]
S24	17th Street/Elm Street	Residential (Category 2)	64.4	65.8	+ 1.4	+ 1.5	+ 3.9	No Impact
S25	B Street	Residential (Category 2)	66.2	68.4	+ 2.2	+ 1.3	+ 3.4	Moderate Impact
S26	Elm Street	Residential (Category 2)	63.6	64.6	+ 1.0	+ 1.5	+ 3.9	No Impact
S27	B Street	Commercial [2]	66.4	67.6	+ 1.2	N/A [2]	N/A [2]	N/A [2]
E01	B Street	Community Center (Category 3)	68.6	66.3	- 2.3	+ 1.1	+ 2.9	No Impact [3]
E02	B Street	Commercial [2]	67.0	68.2	+ 1.2	N/A [2]	N/A [2]	N/A [2]
E03	East 24th Street	Vacant/Commercial [2]	66.3	69.1	+ 2.8	N/A [2]	N/A [2]	N/A [2]
E04	East 24th Street/Triplett Way	Residential (Category 2)	62.4	63.1	+ 0.7	+ 1.7	+ 4.4	No Impact
E05	East 24th Street/Triplett Way	Residential (Category 2)	61.6	62.2	+ 0.6	+ 1.7	+ 4.4	No Impact
E06	Triplett Way	Residential (Category 2)	61.4	61.8	+ 0.4	+ 1.9	+ 4.7	No Impact
E07	Triplett Way	Residential (Category 2)	61.2	61.6	+ 0.4	+ 1.9	+ 4.7	No Impact
E08	Triplett Way	Residential (Category 2)	60.7	61.0	+ 0.3	+ 1.9	+ 4.7	No Impact
E09	Triplett Way	Residential (Category 2)	60.4	60.7	+ 0.3	+ 2.0	+ 5.0	No Impact
E10	Triplett Way	Residential (Category 2)	60.2	60.4	+ 0.2	+ 2.0	+ 5.0	No Impact

Note: L_{dn} is day-night level.
[1] The more conservative FTA threshold in terms of Ldn for Category 2 land use is assumed for Category 3 receptors.
[2] FTA does not assign an impact threshold for commercial use without an associated noise-sensitive purpose.

Vibration (Railroad Vibration) - Impacts

As with rail noise, the potential for vibration impacts from train operations was determined by evaluating the shift in the track location, and therefore the proximity of vibration-generating rail traffic with respect to receptor locations. Earlier in the Regulatory Section, “Vibration Categories”, from the FTA, were discussed and defined. Please refer to those definitions for the following discussion.

Alt 1

Predicted vibration levels for Alternative 1 are shown in Table 2.27. As indicated, no vibration impacts are predicted to occur under Alternative 1. The highest vibration level would be 76.8 VdB, which would occur at two different receptors (S07 and S13). While the vibration would exceed a level of 72 VdB for Category 2 land use at these receptors, the magnitude of the increase in vibration would be less than 3 VdB at both locations.

Alt 2

Predicted vibration levels for Alternative 2 are shown in Table 2.28. Vibration impacts are predicted to occur at three Category 2 receptors under Alternative 2, which are single-family residences (S18, S21 and S25). At all these locations, the modeled vibration level would exceed the FTA criterion of 72 VdB for Category 2 use under future build conditions due to the shift in RR track. The vibration level would also increase by 4.8 to 6.4 VdB at these receptors. Avoidance and minimization measures are recommended to mitigate the vibration impact at these Category 2 receptors from Alternative 2.

Table 2.27. Train Vibration Impact Assessment, Alternative 1

Receptor ID	Location/Cross Streets	Land Use	Existing Vibration Level, VdB	Future Vibration Level, VdB	Increase, VdB	Vibration Impact Threshold, VdB	Vibration Increas Threshold, VdB	Impact?
S01	Ellis Lake Drive	Residential (Category 2)	68.6	68.6	0.0	72	+ 3	No
S02	Ellis Lake Drive	Residential (Category 2)	67.7	67.7	0.0	72	+ 3	No
S03	Ellis Lake Drive	Residential (Category 2)	67.5	68.1	+ 0.6	72	+ 3	No
S04	Ellis Lake Drive	Residential (Category 2)	67.5	68.3	+ 0.8	72	+ 3	No
S05	Ellis Lake Drive	Residential (Category 2)	66.0	66.7	+ 0.7	72	+ 3	No
S06	Ellis Lake Drive	Residential (Category 2)	73.6	75.5	+ 1.9	72	+ 3	No
S07	Ellis Lake Drive	Residential (Category 2)	73.9	76.8	+ 2.9	72	+ 3	No
S08	Ellis Lake Drive	Residential (Category 2)	66.3	67.9	+ 1.6	72	+ 3	No
S09	Clement Way	Residential (Category 2)	69.3	72.9 [1]	+ 3.6	80 [2]	+ 3	No
S10	Clement Way	Residential (Category 2)	66.0	68.1 [1]	+ 2.1	80 [2]	+ 3	No
S11	Clement Way/C Street	Residential (Category 2)	71.4	74.3 [1]	+ 2.9	80 [2]	+ 3	No
S12	C Street	Residential (Category 2)	66.1	67.5 [1]	+ 1.4	80 [2]	+ 3	No
S13	C Street	Residential (Category 2)	75.5	76.8	+ 1.3	72	+ 3	No
S14	C Street	Residential (Category 2)	72.6	73.6	+ 1.0	72	+ 3	No
S15	18th Street/C Street	Residential (Category 2)	69.8	69.8	0.0	72	+ 3	No
S16	18th Street	Residential (Category 2)	76.8	74.7	- 2.1	72	+ 3	No
S17	18th Street/Elm Street	Residential (Category 2)	71.7	70.3	- 1.4	72	+ 3	No
S18	18th Street	Residential (Category 2)	68.6	67.7	- 0.9	72	+ 3	No
S19	18th Street/C Street	Residential (Category 2)	65.8	65.6	- 0.2	72	+ 3	No
S20	Elm Street	Residential (Category 2)	81.2	76.3	- 4.9	72	+ 3	No
S21	Elm Street	Residential (Category 2)	69.5	67.5	- 2.0	72	+ 3	No
S22	Elm Street	Residential (Category 2)	66.5	64.4	- 2.1	72	+ 3	No

Receptor ID	Location/Cross Streets	Land Use	Existing Vibration Level, VdB	Future Vibration Level, VdB	Increase, VdB	Vibration Impact Threshold, VdB	Vibration Increas Threshold, VdB	Impact?
S23	17th Street/Elm Street	Community Center (Category 3)	81.2	74.3	- 6.9	75	+ 3	No
S24	17th Street/Elm Street	Residential (Category 2)	66.9	63.8	- 3.1	72	+ 3	No
S25	B Street	Residential (Category 2)	71.1	66.7	- 4.4	72	+ 3	No
S26	Elm Street	Residential (Category 2)	64.9	62.4	- 2.5	72	+ 3	No
S27	B Street	Commercial [3]	70.5	66.3	- 4.2	N/A [3]	N/A [3]	N/A [3]
E01	B Street	Community Center (Category 3)	76.3	78.8	+ 2.5	75	+ 3	No
E02	B Street	Commercial [3]	72.9	78.2	+ 5.3	N/A [3]	N/A [3]	N/A [3]
E03	East 24th Street	Vacant/Commercial [3]	71.4	78.2	+ 6.8	N/A [3]	N/A [3]	N/A [3]
E04	East 24th Street/Triplett Way	Residential (Category 2)	62.1	63.7	+ 1.6	72	+ 3	No
E05	East 24th Street/Triplett Way	Residential (Category 2)	60.1	61.5	+ 1.4	72	+ 3	No
E06	Triplett Way	Residential (Category 2)	59.6	60.6	+ 1.0	72	+ 3	No
E07	Triplett Way	Residential (Category 2)	59.1	60.1	+ 1.0	72	+ 3	No
E08	Triplett Way	Residential (Category 2)	57.8	58.6	+ 0.8	72	+ 3	No
E09	Triplett Way	Residential (Category 2)	57.0	57.7	+ 0.7	72	+ 3	No
E10	Triplett Way	Residential (Category 2)	56.5	56.9	+ 0.4	72	+ 3	No

Note: VdB is vibration velocity level in decibels.
[1] Vibration level is based on the highest value from freight train passbys, which would occur on the transition curve (Track 685) of the interchange. Vibration levels from the mainline track under future conditions would be less than 70 VdB, which is below FTA vibration thresholds for Category 2 land use.
[2] Threshold is based on FTA criterion for "infrequent events" at Category 2 receptors which is applicable to the low frequency of freight train events on the transition curve.
[3] FTA does not assign a land use category or vibration impact threshold for commercial use except for buildings that contain vibration-sensitive equipment.

Table 2.28. Train Vibration Impact Assessment, Alternative 2

Receptor ID	Location/Cross Streets	Land Use	Existing Vibration Level, VdB	Future Vibration Level, VdB	Increase, VdB	Vibration Impact Threshold, VdB	Vibration Increase Threshold, VdB	Impact?
S01	Ellis Lake Drive	Residential (Category 2)	68.6	68.6	0.0	72	+ 3	No
S02	Ellis Lake Drive	Residential (Category 2)	67.7	67.7	0.0	72	+ 3	No
S03	Ellis Lake Drive	Residential (Category 2)	67.5	68.1	+ 0.6	72	+ 3	No
S04	Ellis Lake Drive	Residential (Category 2)	67.5	68.3	+ 0.8	72	+ 3	No
S05	Ellis Lake Drive	Residential (Category 2)	66.0	66.7	+ 0.7	72	+ 3	No
S06	Ellis Lake Drive	Residential (Category 2)	73.6	75.5	+ 1.9	72	+ 3	No
S07	Ellis Lake Drive	Residential (Category 2)	73.9	76.8	+ 2.9	72	+ 3	No
S08	Ellis Lake Drive	Residential (Category 2)	66.3	67.9	+ 1.6	72	+ 3	No
S09	Clement Way	Residential (Category 2)	69.3	N/A [1]	N/A [1]	80 [2]	+ 3	N/A [1]
S10	Clement Way	Residential (Category 2)	66.0	72.3 3	+ 6.3	80 [2]	+ 3	No
S11	Clement Way/C Street	Residential (Category 2)	71.4	N/A [1]	N/A [1]	80 [2]	+ 3	N/A [1]
S12	C Street	Residential (Category 2)	66.1	72.3 3	+ 6.2	80 [2]	+ 3	No
S13	C Street	Residential (Category 2)	75.5	N/A [1]	N/A [1]	72	+ 3	N/A [1]
S14	C Street	Residential (Category 2)	72.6	N/A [1]	N/A [1]	72	+ 3	N/A [1]
S15	18th Street/C Street	Residential (Category 2)	69.8	N/A [1]	N/A [1]	72	+ 3	N/A [1]
S16	18th Street	Residential (Category 2)	76.8	N/A [1]	N/A [1]	72	+ 3	N/A [1]
S17	18th Street/Elm Street	Residential (Category 2)	71.7	N/A [1]	N/A [1]	72	+ 3	N/A [1]
S18	18th Street	Residential (Category 2)	68.6	74.7	+ 6.1	72	+ 3	Yes
S19	18th Street/C Street	Residential (Category 2)	65.8	71.4	+ 5.6	72	+ 3	No
S20	Elm Street	Residential (Category 2)	81.2	N/A [1]	N/A [1]	72	+ 3	N/A [1]
S21	Elm Street	Residential (Category 2)	69.5	75.9	+ 6.4	72	+ 3	Yes
S22	Elm Street	Residential (Category 2)	66.5	69.8	+ 3.3	72	+ 3	No

Receptor ID	Location/Cross Streets	Land Use	Existing Vibration Level, VdB	Future Vibration Level, VdB	Increase, VdB	Vibration Impact Threshold, VdB	Vibration Increase Threshold, VdB	Impact?
S23	17th Street/Elm Street	Community Center (Category 3)	81.2	N/A [1]	N/A [1]	75	+ 3	N/A [1]
S24	17th Street/Elm Street	Residential (Category 2)	66.9	70.3	+ 3.4	72	+ 3	No
S25	B Street	Residential (Category 2)	71.1	75.9	+ 4.8	72	+ 3	Yes
S26	Elm Street	Residential (Category 2)	64.9	67.3	+ 2.4	72	+ 3	No
S27	B Street	Commercial [4]	70.5	73.2	+ 2.7	N/A [4]	N/A [4]	N/A [4]
E01	B Street	Community Center (Category 3)	76.3	71.4	- 4.9	75	+ 3	No
E02	B Street	Commercial [4]	72.9	75.5	+ 2.6	N/A [4]	N/A [4]	N/A [4]
E03	East 24th Street	Vacant/Commercial [4]	71.4	78.2	+ 6.8	N/A [4]	N/A [4]	N/A [4]
E04	East 24th Street/Triplett Way	Residential (Category 2)	62.1	63.7	+ 1.6	72	+ 3	No
E05	East 24th Street/Triplett Way	Residential (Category 2)	60.1	61.5	+ 1.4	72	+ 3	No
E06	Triplett Way	Residential (Category 2)	59.6	60.6	+ 1.0	72	+ 3	No
E07	Triplett Way	Residential (Category 2)	59.1	60.1	+ 1.0	72	+ 3	No
E08	Triplett Way	Residential (Category 2)	57.8	58.6	+ 0.8	72	+ 3	No
E09	Triplett Way	Residential (Category 2)	57	57.7	+ 0.7	72	+ 3	No
E10	Triplett Way	Residential (Category 2)	56.5	56.9	+ 0.4	72	+ 3	No

Note: VdB is vibration velocity level in decibels.
[1] Vibration level is based on the highest value from freight train passbys, which would occur on the transition curve (Track 685) of the interchange. Vibration levels from the mainline track under future conditions would be less than 70 VdB, which is below FTA vibration thresholds for Category 2 land use.
[2] Threshold is based on FTA criterion for "infrequent events" at Category 2 receptors which is applicable to the low frequency of freight train events on the transition curve.
[3] Vibration level is based on the highest value from freight train passbys, which would occur on the transition curve (Track 685) of the interchange. Vibration levels from the mainline track under future conditions would be less than 70 VdB, which is below FTA vibration thresholds for Category 2 land use.
[4] FTA does not assign a land use category or vibration impact threshold for commercial use except for buildings that contain vibration-sensitive equipment.

Abatement, Avoidance and Minimization Measures

Noise (Traffic)

Noise Abatement measures would not be feasible for inclusion in this project due to driveway and sidewalk access requirements along B Street.

Noise (Railroad)

Alternative 1 does not permanently impact sensitive receptors in the project area; therefore, no avoidance and minimization measures were recommended for this alternative.

For Alternative 2 train noise would have a moderate impact on sensitive receptors. Implementation of one or more noise avoidance and minimization measure may reduce increased train noise impacts below the moderate level identified in the analysis.

Options and examples of noise avoidance and minimization are described and were recommended in the Noise and Vibration Analysis prepared for this project: noise barriers along the RR tracks (like a sound wall) and providing sound insulation on affected properties remaining.

These noise avoidance and minimization options were analyzed by the Project Development Team; however, it was determined that those avoidance and minimization measures are not feasible. For example, the minimum sound wall height is 18 feet, with this requirement, the minimum cost of that wall would be approximately $5.8 million. With the train tracks sitting several feet above the remaining residences, an even higher wall would need to be built to accomplish reducing moderate train noise increases, making that estimate wall cost approximately $8 million.

Vibration (Railroad)

Alternative 1 does not permanently impact sensitive receptors in the project area; therefore, no avoidance and minimization measures were recommended for this alternative.

For Alternative 2 train vibration would be above the FTA threshold at several sensitive receptors. Options considered for vibration reduction include buffer zones, vibration reducing track support system on the rails and trenches filled with material to cancel groundborne vibrations. Buffer zones are not feasible due to the proximity of neighborhoods and resource restrictions. Track support systems would require complex and timely coordination with the RR. Trenches are problematic due to potential utility conflicts. Implementation of one or more of these measures may reduce impacts below the threshold as identified in the analysis. However, considering the factors above, it may not be possible to reduce vibration levels below the FTA criteria due to design and utility constraints

or cost considerations. Feasibly of these measures will be considered during the design phase if Alternative 2 is selected.

Vibration (Railroad Vibration) - Impacts

As with rail noise, the potential for vibration impacts from train operations was determined by evaluating the shift in the track location, and therefore the proximity of vibration-generating rail traffic with respect to receptor locations. Earlier in the Regulatory Section, “Noise Categories”, from the FTA, were discussed and defined. Please refer to those definitions for the following discussion.

Alt 1

An assessment of vibration was not required for Alternatives 1 , as the sensitive receptors nearest to the proposed alignments under these alternatives were located at a distance greater than the screening distance of 120 feet for Category 3 receivers (C-3 institutional day use areas). The distance to the nearest track under Alternative 1 would not change for Category 2 receivers (C-2 residences/business where people sleep). As such, RR vibration under Alternatives 1 was not evaluated further.

Alt 2

An assessment of vibration levels under the track realignment under Alternatives 2 is shown is Table 10; As data indicates, FTA Category 2 Receptors 5, 6, 7 and 8 would have vibration impacts. These receptor locations are approximately in the vicinity of the cross streets C Street and 18th Street, Elm Street and 18th Street, and B Street and Lakeside Court. Alternative 2 proposes permanent realignment of the RR track, Because Receptors 5, 6, 7, and 8 approach or exceeds the vibration “threshold” of 72VdB, at future build years, there would be a moderate impact to railroad vibrations to those receptors.

Table 2.29. Train Vibration Impact Assessment, Alternative 2 (Permanent Realignment)

Receptor ID	Location/Cross Streets	Land Use	Existing Vibration Level, VdB	Future Vibration Level, VdB	Increase, VdB	Vibration Impact Threshold, VdB	Impact?
FTA-4	C Street/18th Street	Residence (Category 2)	65.7	71.5	+5.8	72	No
FTA-5	C Street/18th Street	Residence (Category 2)	65.4	72.0	+6.6	72	Yes
FTA-6	Elm Street/18th Street	Residence (Category 2)	68.1	72.4	+4.3	72	Yes
FTA-7	Elm Street/18th Street	Residence (Category 2)	68.4	73.4	+5.0	72	Yes
FTA-8	B Street/Lakeside Court	Residence (Category 2)	69.9	75.1	+5.2	72	Yes

Note: VdB is vibration velocity level in decibels.

Table 2.30. Train Vibration Impact Assessment, Alternative 2 (Temporary Realignment)

Receptor ID	Location/Cross Streets	Land Use	Existing Vibration Level, VdB	Future Vibration Level, VdB	Increase, VdB	Vibration Impact Threshold, VdB	Impact?
FTA-4	C Street/18th Street	Residence (Category 2)	65.7	65.7	+0.0	72	No
FTA-5	C Street/18th Street	Residence (Category 2)	65.4	68.8	+3.4	72	No
FTA-6	Elm Street/18th Street	Residence (Category 2)	68.1	72.4	+4.3	72	Yes
FTA-7	Elm Street/18th Street	Residence (Category 2)	68.4	73.4	+5.0	72	Yes
FTA-8	B Street/Lakeside Court	Residence (Category 2)	69.9	75.1	+5.2	72	Yes

Note: VdB is vibration velocity level in decibels.

Noise Abatement Options - Exercise

Alternative 1 does not permanently impact sensitive receptors in the project area, therefore no abatement measures were recommended for this alternative.

For Alternative 2 train noise and vibration would have an impact on sensitive receptors Implementation of one or more noise abatement measure would reduce increased train noise and vibration impacts below the moderate level identified in the analysis. However, these noise abatement measures are required, but only where implementation is Feasible and Reasonable.

Options and examples of noise abatement are described and were recommended in the Noise and Vibration Analysis prepared for this project: noise barriers along the RR tracks (like a sound wall), providing sound insulation on affected properties remaining, vibration reducing track support system on the rails, provide a buffer zone or vibration easement from adjacent RR and landowners.

These noise abatement options were analyzed by the Project Development Team, and Noise Engineer, and were found to be not reasonable and not feasible for project implementation. The team explored reasonable abatement options; however, it was determined that those abatement measures are not reasonable and/or feasible. For example, the minimum sound wall height is 18 feet, with this requirement, the minimum cost of that wall would be approximately $5.8 million. With the train tracks sitting several feet above the remaining residences, an even higher wall would need to be built to accomplish reducing moderate train noise increases, making that estimate wall cost approximately $8 million. That would be substantially even more expensive. Implementing vibratory reduction to the tracks is not feasible and not reasonable due to high cost, implementation issues, and complex and timely coordination with the RR. Buffer zones are not feasible and/or reasonable due to the proximity of neighborhoods and resource restrictions. Increased insulation of the remaining existing buildings are not reasonable and/or feasible as well.

Avoidance, Minimization, and/or Mitigation Measures

Implementation of one or more of these measures would reduce impacts below the threshold.

- **Buffer Zones**—Negotiate a vibration easement from the affected property owners or expand rail right-of-way.
- **Trenches**—Vibration can be reduced by installation of a trench between RR tracks and vibration-sensitive receptors. An open trench is effective for cancelation of groundborne vibration waves, but trenches can also be filled with a resilient material such as Styrofoam or filled with concrete to function as a solid barrier within the ground. Trenches are most effective when placed near the source of vibration (FTA 2018).

2.21 Energy

Regulatory Setting

The National Environmental Policy Act (NEPA) (42 United States Code [USC] Part 4332) requires the identification of all potentially significant impacts to the environment, including energy impacts.

The California Environmental Quality Act (CEQA) Guidelines section 15126.2(b) and Appendix F, Energy Conservation, require an analysis of a project's energy use to determine if the project may result in significant environmental effects due to wasteful, inefficient, or unnecessary use of energy, or wasteful use of energy resources.

Affected Environment

An Energy Analysis Report was completed June 2020 for this project. The SR 70 Binney Junction project site is located in proximity to City of Marysville in Yuba County, an area within the Sacramento Valley Air Basin (SVAB), which includes Sacramento, Shasta, Tehama, Butte, Glenn, Colusa, Sutter, Yuba, Yolo, and parts of Solano and Placer Counties. The project is also programmed in the Sacramento Area Council of Governments (SACOG) Metropolitan Transportation Implementation Plan (MTIP, 2019-2021) and is proposed for funding from Statewide Transportation Improvement Program (STIP) (California Transportation Improvement Program System (CTIPS) ID 107-0000-1055).

SR 70 is an Interregional Road System (IRRS) route. This route primarily serves to move people or goods from outside the immediate region through Yuba County. Transporting agricultural commodities to markets has made SR 70 a vital economic link to local farmers and agriculture related businesses. Additionally, SR 70 has become a "gateway" route used to access multiple recreational destinations in the Sierra-Nevada Mountains and serves as an alternate route to and from Nevada when Interstate 80 is closed due to accident or weather conditions. SR 70, north of Marysville and the project limits, is a two-lane rural highway through agricultural land. The northern section of the highway presently has standard 12-foot lanes, with shoulder widths less than 8-foot in most areas and there are currently left turn lanes at County road intersections.

The project is bordered by businesses, residences, parks, railroad, levees, East Lake Park and the Marysville High School / Marysville Joint Unified School District. Within the project limits, the roadway consists of 2-12' lanes with asphalt concrete (AC) pavement, predominantly 8' wide shoulders and frequent left turn pockets. The existing pavement and subgrade are in poor condition and require continued maintenance.

The existing Marysville Underpass crosses SR 70 at P.M. 15.1 providing a narrow roadway width of 13'-6" (10'-6'' travelled way, 1' inside shoulder, and 2'

outside shoulder). This underpass has a vertical clearance of 14'-1" and a history of vehicle and truck impacts causing temporary road closures for bridge inspection by Union Pacific Railroad (UPRR) and additional emergency resources. Due to inadequate Marysville UP vertical clearance height, trucks and truck trailers frequently hit or get stuck under the Marysville UP. The restrictions of the underpass cause ongoing maintenance efforts. For example, Caltrans maintenance responded to approximately six hits between 2012 to 2016; the City of Marysville Police Department responded to approximately 16 incidents in the past three years.

The Binney Junction Underpass crosses SR 70 at P.M. 15.4 and has a vertical clearance of 14'-8". Both the Marysville and Binney Junction Underpasses are well below the standard vertical clearance required for Caltrans facilities (16'-6").

In addition, there is an existing, poorly lit pedestrian tunnel adjacent to the Marysville Underpass. There are sidewalks on both sides of SR70 from 14th Street to 17th Street, sidewalk on the east side of SR 70 from 17th Street to East 18th Street and an asphalt sidewalk on the east side of SR 70 from East 24th Street to the Binney Junction Underpass. The sidewalks and curb ramps do not meet Americans with Disabilities Act (ADA) standards.

Several RR tracks and levees exist in the project limits. There is an existing finger levee underneath and to the north of the Binney Junction Underpass and an existing pump station in the west levee. The intersections at 14th Street and 18th Street are signalized with protected left turn pockets. The intersection at E 24th Street is unsignalized with left turn pockets. There are 2 main railroad service lines in this area. The Sacramento Subdivision is the east-west facility with the Valley Subdivision in the north-south direction, intersecting at Binney Junction. There are spur tracks between the two subdivisions that would need to be maintained. The Sacramento Subdivision bisects the City of Marysville.

Existing Traffic Conditions

The baseline year used for analysis is thus 2016. Existing (2016) traffic conditions on SR 70 in Yuba County from south of 14th Street to north of Cemetery Road were analyzed. The reported truck percentage is 8.7 percent on SR 70 at the Yuba County Line, and average speed during AM peak, PM peak, and off-peak travel is 18 mph, 20 mph, and 35 mph, respectively. The VMT count within the post mile limits of 14.8 to 15.7 was 16,645 in the baseline year of 2016. Expected Traffic Conditions

No Build:

The No-Build (No Action) Alternative consists of those transportation projects that are already planned for construction by or before 2026. Consequently, the No-Build alternative represents future travel conditions in the SR 70 Roadway Rehab study area without the SR 70 Roadway Rehab project and is the baseline against

which the other SR 70 Roadway Rehab alternatives would be assessed to meet NEPA requirements (Table 4).

Table 2.31. Summary of Long-Term Operational Impacts of No-Build Traffic Conditions.

Scenario/ Analysis Year	Location	AADT Total	AADT Truck Total	% Truck	VMT (mi)	Average Speed During AM Peak Travel (mph)	Average Speed During PM Peak Travel (mph)	Average Speed During Off-Peak Travel (mph)
No Build 2026 Opening Year	Post Miles 14.8-15.7	23,943	2,083	8.7	21,548	17	13	35
No Build 2046 Design Year	Post Miles 14.8-15.7	30,452	2,649	8.7	27,407	11	6	35

Average speed between northbound and southbound was used to provide AM & PM Peak Travel (mph).

Build Alternatives:

Table 5 shows traffic conditions for the future years on SR 70 in Yuba County from south of 14th Street to north of Cemetery Road.

Table 2.32. Summary of Long-Term Operational Impacts of Build Traffic Conditions.

Scenario/ Analysis Year	Location	AADT Total	AADT Truck	% Truck	VMT (mi)	Average Speed During AM Peak Travel (mph)	Average Speed During PM Peak Travel (mph)	Average Speed During Off-Peak Travel (mph)
Alternatives 1 & 2 for Opening 2026 Year	PM 14.8-15.7	24,385	2,122	8.7	21,947	22	18	35
Alternatives 1 & 2 for Design 2046 Year	PM 14.8-15.7	32,606	2,837	8.7	29,346	14	14	35

Average speed between northbound and southbound was used to provide AM & PM Peak Travel (mph).

The following analysis, in Table 6, summarizes design features and operational impacts on traffic conditions of the existing year, no-build opening and design years, and build opening and design years within the proposed project. As the data shows, the build alternatives 1 and 2 during both opening and design years would increase average daily traffic volumes as well as increased truck travel on SR 70 within the project limit in comparison with the no-build alternative.

However, the average speed during off-peak hours in the build alternatives would not decrease in comparison with those in the existing condition and the no-build alternative during both opening and design years.

Table 2.33: Summary of Long-term operational Impacts on Traffic Conditions of Existing, No-Build, and Build Alternatives.

Scenario/Analysis Year	Location	Design Features and Operational Impacts on Traffic Conditions
Baseline (existing) 2016 Year	Post Miles 14.8-15.7	Design feature: none Operational impacts Total AADT: 18,494 Total truck AADT: 1,609 Average % truck: 8.7 Average speed during peak: 19 mph Average speed during off-peak: 35 mph
No-Build Alternative Opening 2026 Year	Post Miles 14.8-15.7	Design feature: none Operational impacts Total AADT: 23,943 Total truck AADT: 2,083 Average % truck: 8.7 Average speed during peak: 15 mph Average speed during off-peak: 35 mph
No-Build Alternative Design 2046 Year	Post Miles 14.8-15.7	Design feature: none Operational impacts Total AADT: 30,452 Total truck AADT: 2,649 Average % truck: 8.7 Average speed during peak: 9 mph Average speed during off-peak: 35 mph
Build Alternatives 1 & 2 Opening 2026 Year	Post Miles 14.8-15.7	Design feature: 5-Lane facility with TWLTL and a signalized intersection or a roundabout Operational impacts Total AADT: 24,385 Total truck AADT: 2,122 Average % truck: 8.7 Average speed during peak: 20 mph Average speed during off-peak: 35 mph

Scenario/Analysis Year	Location	Design Features and Operational Impacts on Traffic Conditions
Build Alternatives 1 & 2 Design 2046 Year	Post Miles 14.8-15.7	Design feature: 5-Lane facility with TWLTL and a signalized intersection or a roundabout Operational impacts Total AADT: 32,606 Total truck AADT: 2,837 Average % truck: 8.7 Average speed during peak: 14 mph Average speed during off-peak: 35 mph

Environmental Consequences

The following environmental consequences section describes the methods and results of energy consumption of the proposed project. Analyses in the Energy Analysis Report was conducted using methodology and assumptions that are consistent with the requirements of NEPA and CEQA. A quantitative energy analysis for the capacity-increasing project considers direct but temporary fuel usage during construction as well as the direct operational fuel consumption.

Direct Energy Consumption (Construction)

Site preparation and roadway construction would involve land clearing/grubbing, roadway excavation/ removal, structural excavation/removal, base/subbase/imported borrow, structure concrete, paving, drainage/environment/landscaping, and traffic signalization/signage/stripping/painting. During construction, short-term fuel consumption is expected by various operation. Fuels for construction equipment would be largely powered by gasoline and diesel. Construction activities are expected to increase traffic congestion in the area, resulting in increases in fuel consumption from traffic during the delays. This consumption would be temporary and limited to the immediate area surrounding the construction site.

The basic procedure for analyzing direct energy consumption from construction activities is to obtain fuel consumption projections in gallons from the Caltrans Construction Emission Tool (CAL-CET). Construction energy consumption was estimated using the Caltrans' Model, CAL-CET2018 (version 1.3). The energy consumption presented is based on the best information available at the time of calculations. The energy represents the construction fuel consumption.

Construction-related fuel consumption by operation and annual was calculated for the proposed project and provides the following conclusions:

The proposed project construction would primarily consume diesel and gasoline through operation of heavy-duty construction equipment, material deliveries, and debris hauling. As indicated above, energy use associated with proposed project construction is estimated to result in the short-term consumption of 215,967 gallons for alternative 1 and 2 from diesel-powered equipment, and 132,534 gallons for alternative 1 and 2 from gasoline-powered equipment. These represent small demands (approximately diesel: 1.8%; gasoline: 0.3%) on Yuba County's gasoline and diesel sales estimates (i.e. 12 million of diesel gallons and 46 million of gasoline gallons in 2018) that would be easily accommodated, and this demand would cease once construction is complete. Moreover, construction-related energy consumption would be temporary and not a permanent new source of energy demand, and demand for fuels would have no noticeable effects on peak or baseline demands for energy. While construction would result in a short-term increase in energy use, construction design features would help conserve energy.

Direct Energy Consumption (Mobile Sources)

The basic procedure for analyzing direct energy consumption from mobile sources was conducted by calculating fuel consumption using CT-EMFAC2017. Operational energy takes into account long-term changes in fuel consumption due to the project that would increase a capacity (excluding the construction phase). The operational fuel consumption analysis compares forecasted consumption for baseline, No-Build, and Build alternatives during existing, opening, and design years. Table 9 below contains a summary of all long-term operational energy consumption associated with the proposed project. Measures of vehicle miles of travel (VMT) for existing, opening, and design years were estimated using fuel consumption, fleet average fuel consumption factor, and the VMT distribution in the speed bin between 5 and 75 mph. Detailed fuel consumption calculations can be found in the Energy Analysis Report and in the Traffic and Transportation/Bicycles and Pedestrians Section.

Table 2.34. Summary of Comparative Fuel Consumption Analysis.

Scenario/ Analysis Year	Daily Vehicles Miles of Travel	Vehicle Percentage (%) Truck	Vehicle Percentage (%) Non-Truck	Annual Fuel Consumption (gallons) Diesel	Annual Fuel Consumption (gallons) Gasoline
Baseline Year 2016	16,645	8.7	91.3	98.674	638.314

Opening Year, 2026

Scenario/ Analysis Year	Daily Vehicles Miles of Travel	Vehicle Percentage (%) Truck	Vehicle Percentage (%) Non-Truck	Annual Fuel Consumption (gallons) Diesel	Annual Fuel Consumption (gallons) Gasoline
No-Build Alternative	21,548	8.7	91.3	130.330	610.070
Build Alternatives	21,947	8.7	91.3	124.062	597.222

1 & 2					

Design Year, 2046

Scenario/ Analysis Year	Daily Vehicles Miles of Travel	Vehicle Percentage (%) Truck	Vehicle Percentage (%) Non-Truck	Annual Fuel Consumption (gallons) Diesel	Annual Fuel Consumption (gallons) Gasoline
No-Build Alternative	27,407	8.7	91.3	155.179	589.979
Build Alternatives 1 & 2	29,346	8.7	91.3	152.234	601.196

The added 12-foot lanes on both directions of the highway proposed as alternatives 1 and 2 would affect traffic operations and increase vehicle capacity along SR 70 in the project area. The annual gasoline fuel consumption from the alternatives during the design year is higher than that from the no-build scenario due to increase in VMT, and the differences between the build and the no-build alternatives are approximately 11,217 gasoline gallons. The overall gasoline fuel consumption from the build alternatives during the future years would decrease in comparison with that from the existing condition due to increases in carpooling, hybrid, and electric cars that would improve the emission factors. In order to decrease diesel fuel consumption, the application of newer and more fuel-efficient vehicles would result in an overall lower potential for an increase in the energy consumption. Additionally, the project will generally offset some of a project's potential energy usage if it includes elements that would reduce VMT, such as transit improvements or providing facilities for pedestrians and bicyclists.

Overall, the project is expected to increase travel speed for carpools and vanpools as well as the utilization of hybrid/electric cars, which in turn is expected to cause some level of mode shift to carpools and eco-friendly fuel automobiles. As such the proposed project regarding the non-truck portion would not increase in a consumption of energy in comparison with the existing conditions.

Indirect Energy

The proposed project does not include maintenance activities which would result in long-term indirect energy consumption by equipment required to operate and maintain in the roadway. It would maintain mobility and connectivity on SR 70 in Yuba County from south of 14th Street and north of Cemetery Road without load restrictions, adding an additional 12-foot lane to both directions of the highway. As such, it is unlikely to increase indirect energy consumption though increased fuel usage.

Avoidance, Minimization, and/or Mitigation Measures

There are no avoidance, minimization, and/or mitigation measures required for energy.

2.22 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, of which there are none in the project area. 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 usually discussed in the Threatened and Endangered Species section, however there are no Threatened or Endangered Species within the project area, therefore that section is unnecessary for inclusion into the environmental document. Wetlands and other waters, however, are also discussed in the following section.

Affected Environment

A Natural Environment Study with Mitigation (NES MI) was conducted September 2024 by qualified Caltrans biologist. The NES-MI was used to assess the effects of the proposed project on the existing natural resources and special status species that have the potential to occur within or in the vicinity of the project ESL. There are three natural communities with the potential to occur within the ESL, seasonal wetlands, great valley cottonwood riparian forest, and great valley mixed riparian forest. Of these three, only seasonal wetlands exist within the project ESL, which will be discussed in the following wetlands and other waters section..

The survey area is predominantly within Caltrans' right-of-way (ROW) which is primarily barren or urban with little to no vegetative cover. Areas of natural vegetation, disturbed ruderal vegetation, occur in the ROW primarily along the roadside slopes and associated drainage ditches north of the Marysville ring levee and Binney Junction; and along the front of Marysville High. Wetlands occur in three low-lying areas. The first is between the Marysville ring levee and the Historic Marysville Cemetery. The second is north of the Marysville ring levee just west of the St. Josephs Catholic Cemetery. The third is just inside the ring levee between Marysville UP and 18th St.

Barren: This habitat is defined as land with the absence of vegetation. Any habitat with <2% total vegetation cover by herbaceous, desert or non-wildland species and <10% cover by tree or shrub species (Biogeographic Data Branch 1988). Within the ESL, over 50% of the surface is considered barren due to asphalt overlay and buildings.

Urban: This habitat has variable cover but is usually comprised of landscaped areas containing trees, shrubs, lawns or a combination of them. The areas considered an urban community are comprised by scattered shade trees along the traveled way and lawns in front of the Marysville High School and Youth Center and comprises about

Disturbed Ruderal: The disturbed/ruderal vegetation type in the survey area consists of sparse, primarily nonnative vegetation on the median divide, heavily disturbed road shoulders, and steep embankments. Typical plant species present are milk thistle (Silybum marianum), common mustard (Brassica rapa), and red stemmed filaree (Erodium cicutarium).

There are no wildlife corridors or fish passages located within the project area.

The following Table 2.35 contains Listed, Proposed Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area. Species lists are also located in Appendix E.

Table 2.35. Species List

Scientific name	Common name	Status[1] Federal/State /CNPS	Habitat	Habitat Present/ Absent	Rationale
AMPHIBIANS					
Rana draytonii	California red-legged frog	T/SC	Permanent and semi-permanent aquatic habitats such as creeks and cold water ponds, with emergent and submergent vegetation.	Absent	No effect – No suitable habitat present within project area. Project will not result in take.
BIRDS					
Agelaius tricolor	Tricolored blackbird	-/CE, SC	Nests in emergent wetland vegetation such as tules or cattails, or at upland sites with blackberry shrubs, nettles, and thistles.	Absent	No suitable habitat present within project area. Project will not result in take.
Buteo swainsoni	Swainson's hawk	-/T	Nests in trees with views of riparian areas, grasslands, or agricultural fields.	Absent	No suitable habitat present within project area. Project will not result in take.
Coccyzus americanus occidentalis	Western yellow-billed cuckoo	T/E	Wide, dense riparian forests with a thick understory of willows for nesting; sites with a dominant cottonwood overstory are preferred for foraging; may avoid valley oak-riparian habitats where scrub jays are abundant.	Absent	No effect – No suitable habitat present within project area. Project will not result in take.
Melospiza melodia	Song sparrow ("Modesto" population)	-/SSC	Extensive wetlands and riparian forests.	Absent	No suitable habitat present within project area. Project will not result in take.
Riparia riparia	Bank swallow	-/T	Neotropical migrant found in riparian, lacustrine and coastal habitats with vertical banks, bluffs and cliffs containing sandy soils for digging nest holes.	Absent	No suitable habitat present within project area. Project will not result in take.
Vireo bellii pusillus	Least Bell's vireo	E/E	Riparian forest, scrub, or woodland; nests along margins of bushes or twigs projecting.; usually willow, Baccharis, mesquite.	Absent	No effect – No suitable habitat present within project area. Project will not result in take.

Scientific name	Common name	Status[4] Federal/State /CNPS	Habitat	Habitat Present/ Absent	Rationale
AMPHIBIANS					
Rana draytonii	California red-legged frog	T/SC	Permanent and semi-permanent aquatic habitats such as creeks and cold water ponds, with emergent and submergent vegetation.	Absent	No effect – No suitable habitat present within project area. Project will not result in take.
BIRDS					
Agelaius tricolor	Tricolored blackbird	-/CE, SC	Nests in emergent wetland vegetation such as tules or cattails, or at upland sites with blackberry shrubs, nettles, and thistles.	Absent	No suitable habitat present within project area. Project will not result in take.
Buteo swainsoni	Swainson's hawk	-/T	Nests in trees with views of riparian areas, grasslands, or agricultural fields.	Absent	No suitable habitat present within project area. Project will not result in take.
Coccyzus americanus occidentalis	Western yellow-billed cuckoo	T/E	Wide, dense riparian forests with a thick understory of willows for nesting; sites with a dominant cottonwood overstory are preferred for foraging; may avoid valley oak-riparian habitats where scrub jays are abundant.	Absent	No effect – No suitable habitat present within project area. Project will not result in take.
Melospiza melodia	Song sparrow ("Modesto" population)	-/SSC	Extensive wetlands and riparian forests.	Absent	No suitable habitat present within project area. Project will not result in take.
Riparia riparia	Bank swallow	-/T	Neotropical migrant found in riparian, lacustrine and coastal habitats with vertical banks, bluffs and cliffs containing sandy soils for digging nest holes.	Absent	No suitable habitat present within project area. Project will not result in take.
Vireo bellii pusillus	Least Bell's vireo	E/E	Riparian forest, scrub, or woodland; nests along margins of bushes or twigs projecting; usually willow, Baccharis, mesquite.	Absent	No effect – No suitable habitat present within project area. Project will not result in take.

MAMMALS					
None					
REPTILES					
Thamnophis gigas	Giant garter snake	T/T	Marshes, sloughs, canals, irrigation ditches, and slow-moving creeks.	Absent	No effect – No suitable habitat present within project area. Project will not result in take.
PLANTS					
Astragalus tener var. *ferrisiae*	Ferris' milk-vetch	-/-/List 1B.1	Meadows and seeps, valley and foothill grassland. Subalkaline flats on overflow land in the Central Valley; usually seen in dry, adobe soils.	Absent	No suitable habitat present within project area.
Delphinium recurvatum	Recurved larkspur	-/-/List 1B.2	Alkaline soils. Chenopod scrub, cismontane woodland, valley and foothill grassland.	Absent	No suitable habitat present within project area.
Monardella venosa	Veiny monardella	-/-/1B.1	Found in heavy clay. Cismontane woodland, valley and foothill grassland.	Absent	No suitable habitat present within project area.
Pseudobahia bahiifolia	Hartweg's Golden Sunburst	E/E/List 1B.1	Cismontane woodland, valley and foothill grassland. Predominantly on north-facing slopes of knolls and can occur along shady creeks or vernal pool margins. Clay soils, prefers highly acidic shallow soils, derived from rhyolitic tuff.	Absent	No effect – No suitable habitat present within project area. Project will not result in take.
SENSITIVE HABITATS					
Great Valley Cottonwood Riparian Forest		-/-/-	Riparian Forest		Habitat does not occur within project area.
Great Valley Mixed Riparian Forest		-/-/-	Riparian Forest		Habitat does not occur within project area.
Great Valley Mixed Riparian Forest		-/-/-	Riparian Forest		Habitat does not occur within project area.

[1]Status Explanations:

Federal Status (pursuant to the Federal Endangered Species Act of 1973, as amended)

E = endangered. Listed as being in danger of extinction.
T = threatened. Listed as likely to become endangered within the foreseeable future.
P = proposed. Proposed for listing as threatened or endangered, or for delisting.
C = candidate. Candidate that may become a proposed species.
D = delisted.
- = no listing under the Federal Endangered Species Act.

State Status (pursuant to §1904 (Native Plant Protection Act of 1977) and §2074.2 and §2075.5 (California Endangered Species Act of 1984) of the Fish and Game Code)

E = listed as endangered under the California Endangered Species Act.
T = listed as threatened under the California Endangered Species Act.
C = candidate. Candidate that may become threatened, endangered, or delisted.
D = delisted.
- = no listing.

State Status (other listings)

SC = species of special concern. Animals not listed under the Federal Endangered Species Act or the California Endangered Species Act but which are declining at a rate that could result in listing, or historically occurred in low numbers and known threats to their persistence currently exist.
FP = Fully Protected. Fully Protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.
WL = Watch List. Species that do not meet the criteria of SC, but for which there is concern and a need for additional information to clarify status.

California Native Plant Society (CNPS)

List 1A = Presumed extinct in California.
List 1B species = Plants rare, threatened, or endangered in California and elsewhere.
List 2 species = Rare, threatened, or endangered in California, but more common elsewhere.
List 3 species = More information is needed about the plant species.
List 4 species = Limited distribution (Watch List).
.1 = seriously endangered in California.
.2 = fairly endangered in California.
.3 = Not very endangered in California.

Environmental Consequences

There are minimal to no impacts to natural communities with implementation of this project as the project contains little to no vegetation. The project would widen the road which would have a minimal impact to some of the shade trees in front of the Marysville High School.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, or mitigation measures are required.

Wetlands and Other Waters

Regulatory Setting

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Federal Water Pollution Control Act, more commonly referred to as the Clean Water Act (CWA) (33 United States Code [USC] 1344), is the primary law regulating wetlands and surface waters. One purpose of the CWA is to regulate the discharge of dredged or fill material into waters of the U.S., including wetlands. Waters of the U.S. include navigable

waters, interstate waters, territorial seas, and other waters that may be used in interstate or foreign commerce. The lateral limits of jurisdiction over non-tidal water bodies extend to the ordinary high water mark (OHWM), in the absence of adjacent wetlands. When adjacent wetlands are present, CWA jurisdiction extends beyond the OHWM to the limits of the adjacent wetlands. To classify wetlands for the purposes of the CWA, a three-parameter approach is used that includes the presence of hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils formed during saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the CWA.

Section 404 of the CWA establishes a regulatory program that provides that discharge of dredged or fill material cannot be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the U.S. Army Corps of Engineers (USACE) with oversight by the U.S. Environmental Protection Agency (U.S. EPA).

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

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

The Executive Order for the Protection of Wetlands (EO 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, EO 11990 states that a federal agency, such as FHWA and/or the Department, as assigned, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: (1) that there is no practicable alternative to the construction and (2) the proposed project includes all practicable measures to minimize harm. A Wetlands Only Practicable Alternative Finding must be made.

At the state level, wetlands and waters are regulated primarily by the State Water Resources Control Board (SWRCB), the Regional Water Quality Control Boards (RWQCBs) and the California Department of Fish and Wildlife (CDFW). In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission or the Tahoe Regional Planning Agency) may also be involved. Sections 1600-1607 of the California Fish and Game Code require any agency that proposes a project that would substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFW before beginning construction. If CDFW determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement would be required. CDFW jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the USACE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFW.

The RWQCBs were established under the Porter-Cologne Water Quality Control Act to oversee water quality. Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA. In compliance with Section 401 of the CWA, the RWQCBs also issue water quality certifications for activities which may result in a discharge to waters of the U.S. This is most frequently required in tandem with a Section 404 permit request. Please see the Water Quality section for more details.

Affected Environment

Within the ESL, four potentially jurisdictional aquatic resources were identified and delineated using methods described in the USACE OHWM Delineation Manual (USACE, 2008. These small seasonal wetlands are located in basin depressions along the northern end of the ESL, are isolated from any other potentially jurisdictional waters, and do not contain suitable habitat for any species.

Wetland	Type	Area (acres)	Permanent Impacts (acres)	Temporary Impacts (acres)
SW-7	Seasonal	0.52	0.21	0.21
ASW1	Seasonal	0.06	0.04	0.01
ASW2	Seasonal	0.05	None	None
ASW3	Seasonal	0.04	None	None
	Total Area	0.67	0.25	0.22

Figure 2.26 Seasonal Wetlands and Waters of U.S.



Environmental Consequences

Both Alternative 1 and 2 would permanently impact approximately 0.25 acre and temporarily impact 0.22 acre of seasonal wetlands through relocation of the right

finger levee of the Marysville ring levee and relocation of the Marysville UP in order to accommodate the widening of SR 70.

Avoidance, Minimization, and/or Mitigation Measures

The following avoidance and minimization measures will be implemented to minimize the proposed project's impacts to potentially jurisdictional waters of the US.

- Installation of temporary BMPs such as temporary fiber rolls, temporary drainage inlet protection, temporary silt fence, temporary stabilized entry/exits. A storm water pollution prevention plan (SWPPP) will be completed for the project and will specify minimum erosion and sediment control BMPs and monitoring of turbidity and pH at stormwater discharge points.

- Permanent BMPs will be installed to control pollutant discharges by reducing suspended particulate loads. For example, install ditches or swales to convey roadway runoff to existing crossings or creeks and install fiber rolls to prevent concentration of flows and promote sheet flow. Slopes will be stabilized using erosion control seeding and mulching, erosion control blankets, and compost may be employed depending on project SWPPP.

- Installation of fencing to protect sensitive biological resources.

- Limit ground disturbance to the minimum amount required to complete project.

- Limit construction footprint to the minimum necessary to construct project

Compensatory mitigation is proposed for the 0.25 acres of permanent impacts to potentially jurisdictional aquatic resources with the purchase of in-lieu fee credits or agency approved mitigation bank credits.

Wetlands Only Practicable Finding

Executive Order 11990 states that a federal agency may not undertake or provide assistance for new construction in wetlands unless the head of the agency finds that there is no practicable alternative, and the proposed project includes all practicable measures to minimize harm.

In order to avoid project impacts to historical resources, such as the Maryville Cemetery and Catholic Cemetery nearby, and minimize work on the Marysville ring levee to the minimum needed to construct the project, a wetlands only practicable alternative could not feasibly be constructed, pertaining to EO 11990.

Based on the above considerations, it is determined that there is no practicable alternative to the proposed construction in the wetlands and that the proposed action includes all practicable measures to minimize harm to wetlands that may result from such use. This means, that there was no other feasible means to avoid the wetland, given the other constraints and valuable resources, such as the unavoidable cemeteries, if the wetland were to be avoided.

For both Alternative 1 and Alternative 2, the project would permanently impact approximately 0.523 acres of ephemeral wetlands during the relocation of the Marysville ring levee finger levee. The impacted wetlands are isolated, currently degraded, and void of any special status and/or listed species. Given this, affects to the wetland are not considered a potentially significant impact. As a result, per CEQA, mitigation measures are not required for this project as mitigation measures are not required for environmental impacts that are not found to be significant. However, due to anticipated agency requirements, Caltrans plans to mitigate for wetlands by purchasing credits at an approved mitigation bank.

Avoidance, Minimization and/or Mitigation Measures

Caltrans plans to mitigate for wetlands by purchasing credits at an approved mitigation bank.

Invasive Species

Regulatory Setting

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

Affected Environment

There is minimal vegetation within the project area and conclusively minimal invasive species within the project area. Most invasive species present in the project area are among the weeds scattered adjacent to the highway.

Environmental Consequences

Project activities are not anticipated to contribute to the increasing number of invasive species beyond what is currently present within the ESL. All replanting and planting of trees and erosion control species would not contain invasive species.

Avoidance and Minimization Measures

There are no avoidance, minimization, and/or mitigation measure for invasive species.

CONSTRUCTION IMPACTS

Air Quality – Construction Emissions

Construction Equipment, Traffic Congestion, and Fugitive Dust

Site preparation and roadway construction would involve grading, removing or improving existing roadways, installing a traffic sign, and paving roadway surfaces. During construction, short-term degradation of air quality is expected from the release of particulate emissions (airborne dust) generated by excavation, grading, hauling, and other activities related to construction. Emissions from construction equipment powered by gasoline and diesel engines are also anticipated and would include CO, NOX, ROGs, directly emitted PM10 and PM2.5, and toxic air contaminants (TACs) such as diesel exhaust particulate matter. Construction activities are expected to increase traffic congestion in the area, resulting in increases in emissions from traffic during the delays. These emissions would be temporary and limited to the immediate area surrounding the construction site.

Under the transportation conformity regulations (40 CFR 93.123(c)(5)), construction-related activities that cause temporary increases in emissions are not required in a hot-spot analysis. These temporary increases in emissions are those that occur only during the construction phase and last five years or at any individual site. They typically fall into two main categories:

- Fugitive Dust: A major emission from construction due to ground disturbance. All air districts and the California Health and Safety Code (Sections 41700-41701) prohibit “visible emissions” exceeding three minutes in one hour – this applies not only to dust but also to engine exhaust. In general, this is interpreted as visible emissions crossing the right-of-way line.

Sources of fugitive dust include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site may deposit mud on local streets, which could be an additional source of airborne dust after it dries. PM10 emissions may vary from day to day, depending on the nature and magnitude of construction activity and local weather

conditions. PM10 emissions 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 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). Construction-related emissions for the proposed project are presented in Table 16. The results of the construction emission calculations are included in Appendix E. The emissions presented are based on the best information available at the time of calculations. The emissions represent the daily average construction and project total emissions, respectively.

  Implementation of the following measures would 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.

- Water or a dust palliative would be applied to the site and equipment as often as necessary to control fugitive dust emissions.

- Soil binder would be spread on any unpaved roads used for construction purposes, and on all project construction parking areas.

- Trucks would be washed as they leave the right-of-way as necessary to control fugitive dust emissions.

- Construction equipment and vehicles would be properly tuned and maintained. All construction equipment would use low sulfur fuel as required by CA Code of Regulations Title 17, Section 93114.

- A dust control plan would be developed documenting sprinkling, temporary paving, speed limits, and timely re-vegetation of disturbed slopes as needed to minimize construction impacts to existing communities.

- Equipment and materials storage sites would be located as far away from residential, and park uses as practicable. Construction areas would be kept clean and orderly.

- Track-out reduction measures, such as gravel pads at project access points to minimize dust and mud deposits on roads affected by construction traffic, would be used.

- All transported loads of soils and wet materials would be covered before transport, or adequate freeboard (space from the top of the material to the top of the truck) would be provided to minimize emission of dust during transportation.

- Dust and mud that are deposited on paved, public roads due to construction activity and traffic would be promptly and regularly removed to reduce PM emissions.

- To the extent feasible, construction traffic would be scheduled and routed to reduce congestion and related air quality impacts caused by idling vehicles along local roads during peak travel times.

Asbestos

Based on review of the California Geological Survey12, Yuba County includes the presence of ultramafic rocks or serpentinite and asbestos occurrences reported in the literature. However, Naturally Occurring Asbestos (NOA) is not mapped in the area of Yuba County where NOA is expected to occur.

The construction activities proposed by Caltrans may disturb NOA-containing soil/rock units, if present at the site. The California Air Resources Board (CARB) has minimization practices for construction, grading, quarrying and surface mining operations that may disturb natural occurrences of asbestos as outlined in CCR Title 17, §93105 – Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations (ATCM 93105). NOA potentially poses a health hazard when it becomes an airborne particulate. However, the primary practice used for controlling exposure to potentially asbestos-containing dust, is wetting the materials being disturbed. If

engineering controls do not adequately control exposure to potentially asbestos-containing dust, the use of personal protective equipment is required during construction activities.

Lead

Lead is normally not an air quality issue for transportation projects unless the project involves disturbance of soils containing high levels of aerially deposited lead or painting or modification of structures with lead-based coatings. Any potential Aerially Deposited Lead (ADL) issues would be addressed within the Initial Site Assessment (ISA). See Hazardous Waste section for more details.

Noise – General Construction Impacts

During the construction phases of the project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Table 4 summarizes noise levels produced by construction equipment commonly used on roadway construction projects. As indicated, equipment involved in construction is expected to generate noise levels ranging from 80 to 89 dBA at a distance of 50 feet. Noise produced by construction equipment would be reduced over distance at a rate of approximately 6 dB per doubling of distance.

Table 2.36 Construction Equipment Noise Emission Levels

Equipment	Typical Noise Level (dBA) 50 feet from Source
Grader	85
Bulldozer	85
Truck	84
Loader	85
Compactor	82
Backhoe	80
Crane	83
Excavator	85

Source: FTA 2018
Note: dBA is A-weighted decibels.

Construction noise varies greatly depending upon the construction process, type and condition of equipment used, and layout of the construction site. Many of these factors are traditionally left to the contractor's discretion, which makes it difficult to accurately estimate levels of construction noise. Construction noise estimates are approximate because of the lack of specific information available at the time of the assessment. Temporary construction noise impacts would be unavoidable at areas immediately adjacent to the proposed project alignment. Sound control would conform to the provisions in Section 14-8.02, *Noise Control*, of the Standard Specifications and Special Provisions (SSP 14-8.02) (California Department of Transportation 2015). According to requirements of these specifications, construction noise cannot exceed 86 dBA at 50 feet from the job site activities from 9:00 p.m. to 6:00 a.m.

Noise – Vibration Impacts

FTA has developed methods for evaluating construction noise levels, which are discussed in the FTA Manual (2018). The Manual does not contain standardized criteria for assessing construction noise impacts; instead, it

includes guidelines for suggested noise limits for residential uses exposed to construction noise to describe levels that may result in an adverse community reaction. The FTA guidelines limits residential construction noise exposure to 90 Leq (dBA) during daytime and 80 Leq (dBA) during nighttime. However, thresholds for construction noise may be set at the local level according to expected hours of equipment operation and the noise limits specified in the noise ordinances of the applicable jurisdictions.

Aesthetics – Visual Impacts

Construction of the proposed Project would total several years, with a full road closure during different stages during this time. Therefore, roadway users would be redirected from this portion of the Project corridor several times during construction with, but roadway neighbors would still be able to see construction activities. Roadway neighbors located on the detour route would not see construction activities but would see a temporary increase in local traffic along the detour route. Visual barriers associated with Avoidance and Minimization Measures would not be installed along detour routes because the visual changes associated with minor traffic increases are not likely to be very noticeable and the introduction of visual barriers would create a negative visual effect along detour routes. Even though the proposed Project would take more than two years to construct, visual presence of construction activities and detour traffic is considered temporary. Nighttime construction could occur; therefore, high-intensity lighting for illuminating construction activities could be needed.

Equipment that would be used for construction includes graders, excavators, backhoes, pavers, compactors, and various types of construction vehicles/trucks. Under all Build Alternatives, general construction activities, construction staging/stockpiling, the storage of building materials, the presence of construction equipment, and temporary traffic barricades would result in temporary visual impacts by altering the composition of the viewsheds throughout the Project corridor. However, construction activities would be temporary in duration and would be governed by city, state, and federal regulations and standards designed to minimize their potential to affect adjacent sensitive uses in significantly adverse ways. Construction activities would comply with the applicable regulations, standards, and policies outlined in guidance documents such as the City of Marysville General Plan. Construction staging and laydown areas occurring on SR-70 between 14th Street and Laurellen Road would be located within the ROW. The residences in the City of Marysville that are east and west of SR-70 are separated from the area that may be used as staging by the railroad levee and dense landscaping, so would not likely be affected by construction staging. However, views seen by roadway users and recreationists passing by the intersection of SR-70 would be disrupted by construction staging at this location.

Residents located in the apartments and homes closest to the intersection of 18th Street along C Street which are closest to Railroad levee could have disruptive views of staging areas if they are located along this portion of the roadway corridor. Avoidance and Minimization Measures would ensure that staging areas are screened, minimizing the amount of visual disruption caused by construction staging.

Active construction areas would primarily occur within street ROWs and would have construction signs and barricades to delineate the work zone and partially screen construction activities available to nearby viewers that have unobstructed

lines of sight to the Project area. Visual changes due to construction signaling, signage, and surface glare may occur, though they are not considered to be adverse due to their temporary nature. Avoidance and Minimization Measures would ensure that staging areas are maintained in a clean and orderly manner throughout the construction period. Due to residential/neighboring viewers' familiarity with the existing UPs and thru-traffic, negative visual effects are expected to occur, but because of the temporary nature of construction these effects would be temporary.

A moderate amount of cut, fill and smoothing would be required on the levee slopes as part of the project under the build alternative. In addition, construction staging/stockpiling, the storage of road-building materials, the presence of construction equipment, and temporary traffic barricades would result in minor temporary potential visual impacts. The visible activities would include the removal and installation of pavement, the removal of the new railroad crossings and erection of new railroad crossing, the erecting of falsework, other routine construction activities, and deliveries by truck. These activities would be visible to the motorists and sightseers travelling on SR-70, pedestrians travelling between Ellis Lake and the high school via the existing pedestrian sidewalks, and those in the adjacent residential properties along SR-70 with sightlines to the two under crossings. Views of these activities would not be easily acquired from Marysville residents.

The sensitivity of residents is expected to range from low to moderate according to the sightlines. For the small number of residents who live along SR-70, sensitivity would be greatest; however, most construction activities would be only minimally visible to other residents (e.g., those SR-70 residents who are farther north or south of the construction site) due to topographic factors and/or the intervening distances that separate the viewer from the construction site. Due to heavy traffic along SR-70, including high levels of traffic-related noise, the residents who are closest to the construction activities are likely to have a moderately high tolerance level for the minor construction-related impacts on the visual setting; their sensitivity is therefore considered moderate.

Motorists (including sightseers in vehicles) traveling along SR-70 would see barricades at the portion of the widening during the construction process; however, due to the staging, they would see only a small portion of the construction process (viz., the presence of construction equipment and some building activities) as they drive through the project area. Given the brief opportunity to acquire views of the construction process from SR-70, motorists are likely to have a moderate tolerance level for minor construction-related effects/impacts; their sensitivity is therefore considered moderate. In addition, the construction activities would be temporary, and once the improvements are complete, the roadways would essentially look and function as they did previously.

Construction-related impacts during the construction process would include the following:

- excavating the soil for footings and drill holes for Binney Junction UP and Marysville Underpass;
- reinforcing the footings and pouring concrete;
- constructing a retaining wall, curb, gutter, sidewalk and barrier;
- reconstructing and restriping the roadway;
- removing the temporary staging areas and regrading/revegetating the disturbed slopes and soils.

All actions called for under the Build Alternative options would be temporary, however, and the changes to the streetscape and landscape would be reversible. Once the construction process is completed, these would have no significantly noticeable long-term effect on the visual surroundings because the road would retain the same location, siting, railroad crossings and design elements it currently has. Therefore, substantial adverse effects under NEPA or significant impacts under CEQA due to construction activities are not anticipated under the Build Alternative or the No-build Alternative.

Project Description Features

Air Quality

Caltrans special provisions and standard specifications include the requirement to minimize or eliminate dust through application of water or dust palliatives. The following construction dust and equipment exhaust emissions measures shall be implemented when practical, during all phases of construction work:

- Control measures would be implemented as specified in Caltrans 2018 Standard Specifications Section 10-5 “Dust Control”, Section 14-9 “Air Quality” and Section 18 “Dust Palliatives”.

- Adhere to FRAQMD Rule 3.16 (Fugitive Dust)

- Implement all feasible PM10 control measures recommended by the FRAQMD

- Implement Fugitive Dust Control Plan

The FRAQMD CEQA Guidelines provide feasible control measures for construction emissions. Measures to reduce PM10, PM2.5 and diesel particulate matter from construction are recommended to ensure that short-term health impacts to nearby sensitive receptors are avoided. These are listed below.

- All grading operations on a project should be suspended when winds exceed 20 miles per hour or when winds carry dust beyond the property line despite implementation of all feasible dust control measures.

- Construction sites shall be watered as directed by the Department of Public Works or Air Quality Management District and as necessary to prevent fugitive dust violations.

- An operational water truck should be onsite at all times. Apply water to control dust as needed to prevent visible emissions violations and offsite dust impacts.

- Onsite dirt piles or other stockpiled particulate matter should be covered, wind breaks installed, and water and/or soil stabilizers employed to reduce wind-blown dust emissions. Incorporate the use of approved non-toxic soil stabilizers according to manufacturer's specifications to all inactive construction areas.

- All transfer processes involving a free fall of soil or other particulate matter shall be operated in such a manner as to minimize the free fall distance and fugitive dust emissions.

- Apply approved chemical soil stabilizers according to the manufacturers' specifications, to all-inactive construction areas (previously graded areas that remain inactive for 96 hours) including unpaved roads and employee/equipment parking areas.

- To prevent track-out, wheel washers should be installed where project vehicles and/or equipment exit onto paved streets from unpaved roads. Vehicles and/or equipment shall be washed prior to each trip. Alternatively, a gravel bed may be installed as appropriate at vehicle/equipment site exit points to effectively remove soil buildup on tires and tracks to prevent/diminish track-out.

- Paved streets shall be swept frequently (water sweeper with reclaimed water recommended; wet broom) if soil material has been carried onto adjacent paved, public thoroughfares from the project site.

- Provide temporary traffic control as needed during all phases of construction to improve traffic flow, as deemed appropriate by the Department of Public Works and/or Caltrans and to reduce vehicle dust emissions.

- Reduce traffic speeds on all unpaved surfaces to 15 miles per hour or less and reduce unnecessary vehicle traffic by restricting access. Provide appropriate training, onsite enforcement, and signage.

- Reestablish ground cover on the construction site as soon as possible and prior to final occupancy, through seeding and watering.

- Disposal by burning: Opening burning is yet another source of fugitive gas and particulate emissions and shall be prohibited at the project site. No open burning of vegetative waste (natural plant growth wastes) or other legal or illegal burn materials (trash, demolition debris, et. al.) may be conducted at the project site. Vegetative wastes should be chipped or delivered to waste to energy facilities (permitted biomass facilities), mulched, composted, or used for firewood. It is unlawful to haul waste materials offsite for disposal by open burning.

Noise

Many measures can be taken to minimize noise intrusion without placing unreasonable constraints on the construction process or substantially increasing costs. These measures include noise monitoring to ensure that contractors take all reasonable steps to minimize impacts when near sensitive areas, noise testing and inspection of equipment to ensure that all equipment on site is in good condition and effectively muffled, and an active community liaison program. A community liaison program would keep residents informed about construction plans so they can plan around periods of particularly high noise or vibration levels, and it would provide a conduit for residents to express any concerns or complaints.

In addition, the following measures could be implemented, when feasible, to minimize noise disturbances at sensitive areas during construction:

- Sound control would conform to the provisions in Section 14-8.02, *Noise Control*, of the Standard Specifications and Special Provisions (SSP 14-8.02) (California Department of Transportation 2015). According to requirements of these specifications, construction noise cannot exceed 86 dBA at 50 feet from the job site activities from 9:00 p.m. to 6:00 a.m.

- All equipment would have sound-control devices no less effective than those provided on the original equipment. Each internal combustion engine used for

any purpose on the job or related to the job would be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine would be operated on the job site without an appropriate muffler.

- Construction methods or equipment that would provide the lowest level of noise impact would be used.

- Idling equipment would be turned off.

- Truck loading, unloading, and hauling operations would be restricted so that noise and vibration are kept to a minimum through residential neighborhoods to the greatest possible extent.

- Construction activities would be minimized in residential areas during evening, nighttime, weekend, and holiday periods. Noise impacts are typically minimized when construction activities are performed during daytime hours; however, nighttime construction may be desirable (e.g., in commercial areas where businesses may be disrupted during daytime hours) or necessary to avoid major traffic disruption. Coordination with each city would occur before construction can be performed in noise-sensitive areas.

Aesthetics / Visual

The following construction and operation features would be the same or very similar under all four build alternatives.

A moderate amount of cut and fill and smoothing would be required on the levee slopes as part of the project under the build alternative. In addition, construction staging/stockpiling, the storage of road-building materials, the presence of construction equipment, and temporary traffic barricades would result in minor temporary potential visual impacts. The visible activities would include the removal and installation of pavement, the removal of the new railroad crossings and erection of new railroad crossing, the erecting of falsework, other routine construction activities, and deliveries by truck. These activities would be visible to the motorists and sightseers travelling on SR-70, pedestrians travelling between Ellis Lake and the high school via the existing pedestrian sidewalks, and those in the adjacent residential properties along SR-70 with sightlines to the two under crossings. Views of these activities would not be easily acquired from Marysville residents.

The sensitivity of residents is expected to range from low to moderate according to the sightlines. For the small number of residents who live along SR-70,

sensitivity would be greatest; however, most construction activities would be only minimally visible to other residents (e.g., those SR-70 residents who are farther north or south of the construction site) due to topographic factors and/or the intervening distances that separate the viewer from the construction site. Due to heavy traffic along SR-70, including high levels of traffic-related noise, the residents who are closest to the construction activities are likely to have a moderately high tolerance level for the minor construction-related impacts on the visual setting; their sensitivity is therefore considered moderate.

Motorists (including sightseers in vehicles) traveling along SR-70 would see barricades at the portion of the widening during the construction process; however, due to the staging, they would see only a small portion of the construction process (viz., the presence of construction equipment and some building activities) as they drive through the project area. Given the brief opportunity to acquire views of the construction process from SR-70, motorists are likely to have a moderate tolerance level for minor construction-related effects/impacts; their sensitivity is therefore considered moderate. In addition, the construction activities would be temporary, and once the improvements are complete, the roadways would essentially look and function as they did previously.

Construction-related impacts during the construction process would include the following:

- excavating the soil for footings and drill holes for Binney Junction UP and Marysville Underpass;
- reinforcing the footings and pouring concrete;
- constructing a retaining wall, curb, gutter, sidewalk and barrier;
- reconstructing and restriping the roadway;
- removing the temporary staging areas and regrading/revegetating the disturbed slopes and soils.

All actions called for under the Build Alternative options would be temporary, however, and the changes to the streetscape and landscape would be reversible. Once the construction process is completed, these would have no significantly noticeable long-term effect on the visual surroundings because the road would retain the same location, siting, railroad crossings and design elements it currently has. Therefore, substantial adverse effects under NEPA or significant impacts under CEQA due to construction activities are not anticipated under the Build Alternative or the No-build Alternative.

Construction of the proposed Project would total 8-10 years, with a full road closure during different stages during this time. Therefore, roadway users would

be redirected from this portion of the Project corridor several times during construction with, but roadway neighbors would still be able to see construction activities. Roadway neighbors located on the detour route would not see construction activities but would see a temporary increase in local traffic along the detour route. Visual barriers associated with Avoidance and Minimization Measures would not be installed along detour routes because the visual changes associated with minor traffic increases are not likely to be very noticeable and the introduction of visual barriers would create a negative visual effect along detour routes. Even though the proposed Project would take more than 2 years to construct, visual presence of construction activities and detour traffic is considered temporary. Nighttime construction could occur; therefore, high-intensity lighting for illuminating construction activities could be needed.

Equipment that would be used for construction includes graders, excavators, backhoes, pavers, compactors, and various types of construction vehicles/trucks. Under all Build Alternatives, general construction activities, construction staging/stockpiling, the storage of building materials, the presence of construction equipment, and temporary traffic barricades would result in temporary visual impacts by altering the composition of the viewsheds throughout the Project corridor. However, construction activities would be temporary in duration and would be governed by city, state, and federal regulations and standards designed to minimize their potential to affect adjacent sensitive uses in significantly adverse ways. Construction activities would comply with the applicable regulations, standards, and policies outlined in guidance documents from Caltrans and the City of Marysville General Plan. Construction staging and laydown areas occurring on SR-70 between 14th Street and Laurellen Road would be located within the ROW. The residences in the City of Marysville that are east and west of SR-70 are separated from the area that may be used as staging by the railroad levee and dense landscaping, so would not likely be affected by construction staging. However, views seen by roadway users and recreationists passing by the intersection of SR-70 would be disrupted by construction staging at this location.

Residents located in the apartments and homes closest to the intersection of 18th Street along C Street, that are closest to Railroad levee could have disruptive views of staging areas if they are located along this portion of the roadway corridor. Mitigation Measures would ensure that staging areas are screened, minimizing the amount of visual disruption caused by construction staging.

Active construction areas would primarily occur within street ROWs and would have construction signs and barricades to delineate the work zone and partially screen construction activities available to nearby viewers that have unobstructed lines of sight to the Project area. Visual changes due to construction signaling, signage, and surface glare may occur, though they are not considered to be adverse due to their temporary nature. Mitigation Measures would ensure that staging areas are maintained in a clean and orderly manner throughout the construction period. Due to residential/neighboring viewers' familiarity with the

existing UPs and thru-traffic, negative visual effects are expected to occur, but because of the temporary nature of construction these effects would be temporary.

Cumulative Impacts

Regulatory Setting

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

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

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

Cumulative Analysis Impact by Resource

The State CEQA Guidelines provide that cumulative context may be described through either the list approach or the plan/projections approach. The list approach involves identifying and listing the past, present, and reasonably foreseeable probable future projects that contribute to a given significant cumulative impact. The plan/projections approach relies on an adopted plan or reliable projection that describes the significant cumulative impact. This document relies on the plan approach, using cumulative impacts described in the *Final Yuba County General Plan EIR* (AECOM 2011) as the basis for the cumulative impact analysis.

The cumulative impact analysis does not include any impacts that are not cumulatively significant. In addition, it does not include cumulative impacts to which the project would not contribute.

Traffic and Transportation/Growth

The Yuba County General Plan EIR concluded that buildout of the general plan would result in cumulative impact due to regional population growth.

Under the cumulative condition, ongoing urban development is expected to continue within the study area. Local and regionally planned transportation projects are intended to accommodate the expected increase in traffic related to development in the region. However, if work on multiple projects were to overlap with the proposed project during construction, significant cumulative impacts related to traffic delays and detours for travel in the region could occur.

Planned highway projects, such as the SR 70 Safety Project and the Segment 4 & 5 STIP widening projects on the SR 70 corridor could require temporary reductions in lane widths and reductions in speed limits along SR 70, which could contribute to significant cumulative impacts on traffic circulation and congestion in construction zones. While some level of disruption in traffic could occur if planned development and transportation improvement projects overlap, cumulative construction impacts would be temporary and individual projects would contain measures to avoid major traffic delays. Therefore, it is not anticipated that that temporary effects of construction of multiple projects would combine to result in cumulatively significant impacts.

Over the long term, planned transportation improvements of major roadways in the study area are anticipated to provide beneficial impacts on the existing highway network by widening existing highways, improving safety, and reducing congestion. Taken together, these transportation projects would provide a cumulative regional benefit to transportation, improving circulation and access in the region. Therefore, there would not be a cumulatively significant impact on traffic and transportation.

Neighborhood, Community Character and Cohesion

There would no cumulative impacts regarding community character and cohesion. This build project and future build projects along the SR 70 corridor would improve intersections, improve safety, and improve accessibility for pedestrians, bicyclists, and transit utilizers. Safe routes to school practices implemented in nearby urban and rural area projects, would improve services and mobility for community members, enhancing community character and cohesion.

While some level of disruption in traffic could occur if planned development and transportation improvement projects overlap, cumulative construction impacts would be temporary and individual projects would contain measures to avoid

major traffic delays. Therefore, it is not anticipated that that temporary effects of construction of multiple projects would combine to result in cumulatively significant impacts for community character and cohesion,

Environmental Justice/Relocations and Real Property Acquisition

Over the long term, planned transportation improvements of major roadways in the study area are anticipated to provide beneficial operational impacts on the existing highway network by widening existing highways, improving safety, and reducing congestion. Taken together, these transportation projects would provide a cumulative regional benefit to transportation, improving circulation and accessibility in the region. Environmental justice communities are largely reliant on modes of travel, other than a personal vehicle, such as walking, biking, and using the local transit system. Planned projects would enhance these alternate modes of travel. Therefore, there would not be a cumulatively significant impact on environmental justice communities.

For the proposed project's Alternative 2 *only*,18 residences in a neighborhood which contains environmental justice communities would be acquired with the proposed realignment of the RR track for Alternative 2. However, other planned transportation improvements of major roadways in the study area do not remove a substantial amount of housing. After completion of this proposed project, railroad alignments would not need to be readjusted and the vertical/horizontal clearances would be remediated to standard distance clearances. The addition of new railroad lines could be a distant possibility, but that would not be foreseeable in the near or planned future. Therefore, there would not be a cumulative impact to environmental justice population or real property relocations either.

While some level of disruption in traffic could occur if planned development and transportation improvement projects overlap, cumulative construction impacts would be temporary and individual projects would contain measures to avoid major traffic delays. Therefore, it is not anticipated that that temporary effects of construction of multiple projects would combine to result in cumulatively significant impacts.

Visual Resources

Cumulative impacts are those resulting from past, present and reasonably foreseeable future actions, combined with the potential visual impacts of the project. There are several known projects within the area of cumulative effect.

Three projects are planned that could be reasonably considered as contributing to the corridor's visual resources: 03-1E060 Simmerly Slough Project, 03-1H270 Yuba 70 Bridge Widening, 03-3F281 Yuba 70 Passing Lanes Segment 2, 03-3H930 Yuba 70 Passing Lanes Segment 3 and 03-3F283 Yuba 70 Passing Lanes Segment 4&5. All projects would contribute to the corridor's visual changes but would not significantly alter the visual landscape, degrade the Visual

Quality of the project area, and negatively affect highways users and highway neighbors. Therefore, the project's cumulative effects would not be cumulatively considerable.

For the proposed project, it has been determined that the following cumulative visual impacts may occur: loss of mature trees, temporary construction impacts, infilling open space and vacant lots and reprogramming existing land use from agricultural or rural development to more suburban land uses, and ambient atmospheric lighting and glare.

The loss of mature trees would affect visual quality. Temporary construction impacts associated with the proposed project would not result in cumulative visual impacts because they would be temporary, especially when compared to larger-scale development and transportation projects occurring in the area. Planned development and transportation projects also would alter the existing visual character of the area in the long term by infilling open space and vacant lots and reprogramming existing land use from agricultural or rural development to more suburban land uses. Future development and roadway improvements also would add to ambient atmospheric lighting and glare in the area by infilling unlit open space areas with lit buildings and roadways and by adding reflective surfaces to areas that are currently undeveloped or removing aged commercial buildings. The proposed project, however, would not contribute to these cumulative impacts related to planned and/or proposed development in the area because it would not substantially alter the existing visual landscape or degrade the visual quality of the project area. The combined visual effect of all alternatives and other roadway projects planned, recently in construction, or currently in construction would gradually change the visual character of the major transportation corridors in the region from rural highways to highways that are more urban in character. This impact would not be cumulatively considerable.

Physical Environment

Hydrology and Floodplain

The Yuba County General Plan EIR concluded that there would be a significant cumulative impact related to an increase in impervious surfaces.
Planned and reasonably foreseeable development, including major construction projects in the project vicinity, could impede flood flows or increase the number of people or structures affected.by flooding within the cumulative floodplain Resource Study Area. Future projects involving new and improved bridge crossings, such as bridge crossings, such as the Simmerly Slough Bridge replacement, could require the placement of piers in a Federal Emergency Management Agency floodway or floodplain. If the effects to floodplains from these projects were to combine to substantially redirect flood flows or increase flood elevations such that it placed structures within a floodplain such that they would be imperiled, it would be considered a significant cumulative impact.
All ongoing and reasonably foreseeable projects are subject to and must comply with applicable federal, state, and local policies, programs, and ordinances, which would

reduce the impact on floodplains and flood risks. The local flood control agencies and applicable flood control design criteria require projects in areas within the designated 100-year flood zones to design project-specific drainage systems in accordance with findings of site-specific studies. Therefore, construction associated with reasonably foreseeable projects in such areas would be designed to comply with regulatory agency requirements. Consistent with the standard requirements of those agencies, design of these bridge crossings would include measures to minimize the impacts of placing piers in the floodplains and floodways.

In addition, some development within a 100-year floodplain may divert or redirect flood flows; however, where these floodplains and floodways exist, project proponents would design projects so that little to no increase in water surface elevation would occur, in accordance with local regulations and permitting. In addition, new development within levee-protected zones could expose more people and structures to flooding risks. However, federal, state, and local agencies (i.e., USACE, California Department of Water Resources, municipalities, and local flood districts) would continue to coordinate so that levees are constructed, repaired, and maintained to provide adequate flood protection within potential inundation areas. Accordingly, development under county and city general plans as well as other past, present, and reasonably foreseeable projects would not result in cumulatively significant impacts on localized or regional flooding by impeding or redirecting flood flows nor would the proposed project impede or redirect flood flows or otherwise encroach on a 100-year floodplain. Based on the above analysis, the proposed project, when combined with the cumulative projects, is not anticipated to result in a cumulative impact to hydrology and floodplains.

Water Quality and Storm Water Runoff

The Yuba County General Plan EIR concluded that there would be a significant cumulative impact related to an increase in impervious surfaces.
The anticipated growth and development within the Lower Feather River Watershed could contribute to the cumulative surface water quality degradation and the collective effect of development could degrade stormwater quality by contributing pollutants during construction and operations within the cumulative surface water RSA. Cumulative development could also affect surface water quality if the land uses change, the intensity of land use changes, or drainages are altered such that they facilitate introduction of pollutants to surface water. A significant cumulative impact would occur if the effects of multiple projects combined to violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality in water bodies in the project vicinity.

As a result of land use changes, the preservation of surface water quality is anticipated to be an increasing challenge through 2040. Planned and reasonably foreseeable future projects could have construction schedules that overlap. Construction in, across, or over rivers, streams and canals (e.g., 5th Street Bridge Replacement, the Pennington Bridge replacement, the Simmerly Slough Bridge replacement, and bridge preventative maintenance within Yuba County) has the potential to degrade surface water quality, and concurrent construction schedules for these multiple projects could exacerbate this degradation of surface water quality.

Accordingly, construction and ongoing operations and maintenance of these overlapping projects would have the potential to result in cumulative impacts on surface water and stormwater quality.

However, compliance with regulatory standards (NPDES Permit, MS4 Permit, and local stormwater requirements) and required avoidance features, as conditions of individual project approvals, should minimize or eliminate potential water quality impacts associated with construction operations and the functionality of the facility (post construction). With required actions in place and the implementation of avoidance and minimization measures, construction work and operations within the project vicinity are not anticipated to violate water quality standards or waste discharge requirements or further degrade water quality within the Lower Feather River Basin; therefore, cumulative surface water and stormwater quality impacts are not anticipated to be cumulatively significant.

Geology and Soils

The Yuba County General Plan EIR concluded that there would be a significant cumulative impact related to loss of mineral resources.

Planned projects may convert additional land to transportation or developed land uses within the project vicinity for geology, soils, seismicity, and topography. These projects would likely require excavation and grading activities that would contribute to the removal of vegetation and could collectively increase the potential for surface water runoff and expose soils to wind and water erosion. Exposed soils that are not protected, such as exposed work areas and stockpiles, could erode and result in a loss of high-value topsoil. In addition, planned and future transportation and development projects occurring in areas of expansive soils could contribute to differential movement and possible foundation damage as a result of changes in soil volume. Regulatory and State standards and requirements, including the California Building Code, Caltrans' Specifications, avoidance features, and the implementation of construction site BMPs, should minimize or eliminate the potential geological impacts identified and associated with the construction and operation of planned development projects on SR 70. There are no anticipated impacts to minerals as a result of the build alternatives. Therefore, the proposed project, in combination with the cumulative projects, is not anticipated to produce cumulative impacts related to geology and soils.

Air Quality and Energy

The Yuba County 2030 General Plan EIR concluded that construction and operational criteria pollutant emissions and TACs associated with buildout of the general plan would have a significant cumulative impact.

Future planned transportation projects such as the SR 70 Safety Project and the Segment 4 & 5 STIP widening projects on SR 70 are located within the project vicinity. These projects could contribute to cumulative short-term air quality impacts if construction schedules for these projects overlap. This scenario is not anticipated to occur because the construction of the various present and

reasonably foreseeable future projects would be temporary, and the projects do not generally have overlapping or adjacent construction footprints or schedule. As a result, the proposed project, in combination with these cumulative projects, would not contribute to a cumulative air quality impact, regarding construction.

Under SB 375, SACOG, as the region's Metropolitan Planning Organization (MPO), has been designated by the state to prepare the area's "Sustainable Communities Strategy" (SCS) as an additional element of the MTP. The SCS is the forecasted development pattern for the region, which, when integrated into with the transportation network, and other transportation measures and policies, would meet the passenger vehicle greenhouse gas reduction target for the area. SB 375 prompts regions to reduce GHG emissions from passenger vehicles through the coordinated planning of long-range transportation plans. The legislation requires all MPO in California to develop a SCS as an additional element of their regional transportation plans. SACOG's 2020 MTP/SCS was adopted on November 18, 2019.

As discussed in the SACOG 2020 MTP/SCS Draft Environmental Impact Report (DEIR), the forecasted emissions for ozone, PM10 and CO associated with implementation of the MTP/SCS are within the conformity budgets identified within the existing plans for each milestone year. Similarly, the forecasted emissions for PM10 and PM2.5 associated with the proposed MTP/SCS pass all interim emissions tests for all milestone years. However, projected growth within the cumulative impact analysis area of the 2020 MTP/SCS would result in a potentially unavoidable cumulative impact from air emissions adversely affecting a number of air basins. The project would be implemented as part of the 2020 MTP/SCS and would potentially contribute to cumulative/ regional/indirect effects as identified in the SACOG 2020 MTP/SCS DEIR.

Noise and Vibration

The Yuba County 2030 General Plan EIR concluded that traffic noise associated with buildout of the general plan would have a significant cumulative impact.

A cumulative noise impact would occur if activities related to the proposed project combined with the noise generated by other projects to expose people to noise levels in excess of standards for severe impacts as established by the FHWA. Future planned transportation projects on and near SR 70 could contribute to cumulative noise impacts on sensitive receivers if construction schedules for these projects overlap and sensitive receptors are within the impact areas of two or more projects at a time. This scenario is unlikely to occur because the construction of the various present and reasonably foreseeable future projects would be temporary, and the projects do not generally have overlapping or adjacent construction footprints or schedules. Further, each project would be responsible for following applicable noise ordinances during construction, thereby reducing the noise impact. As a result, the proposed project would not contribute to a cumulative noise impact.

Biological Resources

In particular, this project has a minimal effect on the biological environment. When looking at other projects in the general project area, biological resources in the urban corridors would not be cumulatively impacted as there are limited resources in the urban core which would be affected by other projects. Just north of the proposed project, on SR 70 with the Continuous Passing Lanes project (Segment 4 and 5) would impact biological resources, there would not be a project in the foreseeable future which would widen highway further. As a result, the proposed project, would not contribute to a cumulative biological impact.

Climate Change/Green House Gas Emissions

GHG analysis is by its nature cumulative. No individual project is of sufficient size to be the sole reason for climate change. Instead, climate change is the result of millions of activities that emit GHGs. The analysis of the proposed project's GHG emissions is within the context of statewide efforts to minimize the impacts of climate change. See Section 3.2.22, *Climate Change,* for the discussion of cumulative impacts and mitigation measure

Chapter 3 California Environmental Quality Act Evaluation

3.1 Determining Significance under the California Environmental Quality Act

As stated above, 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).

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, would be required. NEPA requires that an EIS be prepared when the proposed federal action (project) as a whole 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.

3.2 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 you 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.

3.3 Aesthetics

CEQA Significance Determinations for Aesthetics

Except as provided in Public Resources Code Section 21099, would the project:

a) Have a substantial adverse effect on a scenic vista?

No Impact

The proposed project corridor is not considered scenic and there would be no alteration or impacts to a scenic vista.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Less Than Significant Impact

The proposed project would not damage scenic resources, which include, but are not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. The new alignment/widening would not create an additional negative effect on scenic resources. Minor tree removal would be required; however, landscaping would be planted throughout the project limits. Adjacent to the project location are several businesses, schools, parks, railroad facilities, and drainage facilities that would ultimately be impacted by the proposed project. These facilities include: East Lake Park, Marysville High School, Marysville Joint Unified School District, Allen Scott Youth & Community Center, Yuba-Sutter Transit, Dollar Tree, El Torero Meat Market & Taqueria, Yanez Custom Wheels and Tires, The Wright Closet, WP Towing, B Street Dental, Tey Café and Veterans Memorial Center. However, project design implementation would have less than significant impacts to scenic resources.

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?

Less Than Significant Impact

The proposed project is located in an urban area and would alter the existing roadside landform; however, the new alignment would not increase the effect on the visual character and quality of the surrounding environment. New road edges would provide shoulders for bike lanes, continuous sidewalks with street trees and colored paving and easily marked crosswalks, which should enhance the overall visual character and quality of the area. Several businesses would no longer abut the roadway, and the corridor would become wider from the added lane/s, shoulders and sidewalks in addition to the removed facilities. Therefore, the project as designed would not substantially degrade the visual character and quality of the site and would have less than significant impacts to scenic resources and visual character. No mitigation is required.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant Impact

The proposed project would not introduce new permanent sources of nighttime lighting or increase light or glare. The roadway would be wider and potentially more heavily travelled; however, this route is already a major throughfare….. Project design features such as LED no glare lighting would cause less than significant effects on light and glare. No mitigation is required.

3.4 Agriculture and Forest Resources

CEQA Significance Determinations for Agriculture and Forest Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

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?

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

d) Result in the loss of forest land or conversion of forest land to non-forest use?

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact

Questions a) through e) would be no impact because the project is not acquiring nor indirectly affecting any farmlands or timberlands. Therefore, there would be no impact to farmlands and timberlands.

3.5 Air Quality

CEQA Significance Determinations for 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?

Less Than Significant Impact

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 in cooperation with Sacramento Area Council of Governments (SACOG's), local governments, and the private sector. The Air Quality Management Plan provides the blueprint for meeting state and federal ambient air quality standards. The proposed project

is included in SACOG's Metropolitan Transportation Plan (MTP) and Metropolitan Transportation Improvement Program (MTIP), both of which were found to be conforming. Therefore, the proposed project would not conflict with the applicable Air Quality Management Plan. Thus, the impact would be less than significant.

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?

Less Than Significant Impact

No cumulatively considerable impacts to criteria pollutants are anticipated from the project's operational emissions under either build alternative. Thus, the impact is less than significant. No mitigation is required.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact

There are two sensitive receptors within the project area and include the Marysville High School located at 12 18th Street, Marysville, CA 95901, and the E Center, located at 1128 Yuba Street, Marysville, CA 95901.

No considerable impacts to criteria pollutants are anticipated as the project's operational emissions are not significant under the build alternatives. For temporary construction emissions, construction dust and equipment exhaust emissions measures shall be implemented through Caltrans' special provisions and standard specifications, during all phases of construction work thus, the impact would be less than significant. No mitigation is required

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less Than Significant Impact

Temporary construction activities could generate fugitive dust and odors from the operation of construction equipment. However, the project would comply with construction standards adopted by FRAQMD as well as Caltrans standardized procedures for minimizing air pollutants during construction. Impacts would be less than significant. No mitigation is required.

3.6 Biological Resources

CEQA Significance Determinations for Biological Resources

Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

No Impact

There are no special status plant species or animal species of concern within or near the project area, therefore there is no impact.

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 U.S. Fish and Wildlife Service?

No Impact

There are no sensitive natural communities or riparian within the project area; therefore, there is no impact to riparian or sensitive natural communities.

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?

Less Than Significant Impact

The proposed project would permanently 0.25 acre and temporarily impact approximately 0.22 acre of seasonal wetlands during the relocation of the Marysville ring levee and Marysville UP. The impacted wetlands are isolated, currently degraded, and void of any special status and/or listed species. Given this, impacts to the wetlands are not considered a potentially significant impact. As a result, per CEQA, mitigation measures are not required for this project as mitigation measures are not required for environmental impacts that are not found to be significant. However, due to anticipated agency requirements, Caltrans plans to compensate for the permanent impacts to 0.25 acre of seasonal wetlands by purchasing approved mitigation bank or in-lieu fee credits.

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?

No Impact

There are no wildlife corridors, fish or other species, within the project area. There would be minimal trees removed for construction of the project and migratory bird/bat species would be protected by implementation of pre-construction surveys. No impact to wildlife corridors is expected.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact

There are no local policies or special ordinances within or near the project area; therefore, there is 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?

No Impact

There are no habitat conservation plans, natural community conservation plans, or other plans within or near the project area; therefore, there is no impact.

3.7 Cultural Resources

CEQA Significance Determinations for Cultural Resources

Would the project:

a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

No Impact

Caltrans has determined that the project would not result in a significant adverse change in the significance of the built environment resources in the APE and received SHPO concurrence on November 19, 2020.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less than Significant Impact

Although there are no known archaeological resources within the project limits, Caltrans has determined that there is potential for subsurface, historic-era, archaeological resources. Due to access limitations, Caltrans has not yet determined project impacts to these resources, if any should exist; however, Caltrans has consulted with CSO regarding the Cultural Resources Management Plan, which would address any impacts to previously unknown archaeological deposits, if any are discovered during construction, under Public Resources Code 5024. CSO responded on November 30, 2020, stating that they have no objection to the plan.

c) Disturb any human remains, including those interred outside of dedicated cemeteries?

No Impact

There are no known human remains within the project limits, and Caltrans has determined that there is no potential for subsurface, archaeological resources that might include human remains.

3.8 Energy

CEQA Significance Determinations for 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?

No Impact

The proposed project does not include maintenance activities which would result in long-term indirect energy consumption by equipment required to operate and maintain the roadway. The proposed project would maintain mobility and connectivity on SR 70 in Yuba County from south of 14th Street and north of Cemetery Road without load restrictions, adding an additional 12-foot lane to both directions of the highway. As such, it would not increase indirect energy consumption though increased fuel usage.

During construction, energy use would primarily involve fuel consumption from use of construction equipment and on road vehicles. This consumption would be temporary in nature and would cease once construction is complete. There would be no increase in energy consumption compared to existing conditions. Therefore, the project would not result in a wasteful, inefficient, or unnecessary usage of energy resources during project construction or operation regarding gasoline consumption. Thus, there would be no impacts to unnecessary consumption of energy resources.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact

The applicable renewable energy plan for the project area would be the State Renewable Portfolio Standards (RPS), which requires utility agencies to ensure a certain percentage of the electricity they sell is from a renewable source. The project would not conflict with or obstruct this plan. Thus, no impact would occur.

3.9 Geology and Soils

CEQA Significance Determinations for Geology and Soils

Answers to this section are based on the project location and information from the project Geologist.

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?

No Impact

No active faults cross this project site. Therefore, there are no impacts to active fault zones.

ii) Strong seismic ground shaking?

Less Than Significant Impact

The magnitude of seismic shaking is relatively low as active faults are far from this project site. All structures would be designed to meet state and federal seismic standards.

iii) Seismic-related ground failure, including liquefaction?

No Impact

Based on the project location and ground condition, no seismic-related ground failure or liquification would occur.

iv) Landslides?

No Impact

This site is not located in landslide zone.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact

Exposed soils that are not protected, such as exposed work areas and stockpiles, could erode and result in a loss of high-value topsoil. Regulatory and State

standards and requirements, including the California Building Code, Caltrans' Specifications, avoidance features, and the implementation of construction site BMPs, should minimize or eliminate the potential geological impacts identified and associated with the construction.

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?

No Impact

The ground condition is stable at this project site; therefore, no landslide, lateral spreading, subsidence, liquefaction or collapse would occur.

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?

No Impact

No expansive soils were identified at this project site and no direct or indirect risks to life or property would occur.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?

No Impact

Soils have adequate bearing to support septic tanks or alternative wastewater disposal systems.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

No Impact

The proposed project would not destroy any unique geologic features.

3.10 Greenhouse Gas Emissions

CEQA Significance Determinations for Greenhouse Gas Emissions

Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact

The increase in GHG emissions to the small VMT increase would be offset by the reduction in peak hour GHG emissions due to improved operations at multiple intersections. Because there is a reduction in future emissions with the project compared to the existing emissions, there is still evidence of substantial progress in reducing emissions and the impact is considered less than significant.

In addition, this project promotes multi-modal transportation alternatives to vehicles, by adding sidewalks, enhancing bike accessibility and connectivity, upgrading to ADA standards, and building a complete streets project with active transportation features. In addition, planting trees and vegetation adjacent to the highway, for this project would help to minimize GHG emissions long term and promote active transportation, therefore complying with California's vision of reduced emissions and enhanced livability.

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

Less Than Significant Impact

The proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions, as the project is consistent with SACOG's RTP/SCS (which considers goals stipulated by AB 32, etc.) would therefore not conflict with SB 375. In addition, although the project is not specifically called out in the General Plan, the project is consistent with the policies in the General Plan and would help the County achieve its goals of providing a safe and efficient transportation system by improving the throughput of vehicles in the corridor. The project is considered a project accommodated for in the General Plan. Moreover, the build alternatives result in a decrease in GHG emissions by horizon year in relation to existing conditions for all project alternatives consistent with the goal of SB 743 to reduce greenhouse gas emissions.

3.11 Hazards and Hazardous Materials

CEQA Significance Determinations for 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?

Less Than Significant Impact

During construction, there would be the occasional or routine transportation of soil which may contain hazardous waste such as aerial deposited lead. All state

and federal hazardous waste regulatory requirements, protocols, and regulations pertaining to transportation of such materials would be adhered to.

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?

Less Than Significant Impact

Implementation of Caltrans Standard Specifications for the removal and handling of known hazardous materials would minimize the chances of an accidental release of hazardous materials into the environment. This impact is less than significant. No mitigation is proposed.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant Impact

There is an existing high school within the project limits. Implementation of Caltrans Standard Measures, Best Management Practices, and Caltrans Standard Specifications for the removal and handling of known hazardous materials would minimize the chances of emitting hazardous emissions, materials, substances, or waste. All state and federal hazardous waste regulatory requirements, protocols, and regulations pertaining to the handling and transportation of such materials would be adhered to.

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?

Less Than Significant Impact

The 7up bottling property located at 2100 B Street is on the Cortese List and classified as a “closed site”. Measures would be taken to ensure compliance with federal, state and local laws in handling this property. No hazard to the public or environment would occur.

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?

No Impact

The project is not located within or near an airport or planned airport. There is no impact to airports and airport land use.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant

During construction, only one lane will be closed during overnight hours when volumes are low. Emergency services will be provided access at all times. Any required closures would be coordinated with emergency service providers as not to hinder emergency responses. After the project is constructed, emergency service routes would be enhanced with a wider roadway, additional lanes for traffic control, and wide shoulders. There would be no impact to police protection services.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

No Impact

This project and project area is not within or adjacent to a high fire hazard and is not located in any fire hazard area, according to the Calfire “State Responsibility Area” map and the “Local Responsibility Area” map. Therefore, there is no impact for wildfire as a result of this project.

3.12 Hydrology and Water Quality

CEQA Significance Determinations for 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?

Less than Significant Impact

It is anticipated that the project would be regulated under the Construction General Permit (CGP). Compliance with the CGP would require a risk level analysis based on the project’s potential erosion and transport to receiving waters. The results of this analysis would be utilized to determine standard water quality protection measures (to be implemented) in order to avoid surface and ground water quality degradation during construction operations. It is anticipated that BMP usage, placement, field implementation and effectiveness would be monitored, adjusted, and modified (accordingly) for the duration of the project. Compliance with all applicable NPDES Permits, in addition to coordination with the Regional Water Quality Board, is expected to ensure the protection of water resources in the area. Violation of water quality standards or waste discharge requirement are not anticipated.

For projects having one acre or more of new impervious area, Caltrans' MS4 Permit requires the implementation of storm water design features and a strategy to treat runoff and manage impervious and pervious areas within the project limits. Specific design features would be vetted, and decisions made (storm water related) would be documented within project design and environmental technical studies. This impact is less than significant. No mitigation is proposed.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less Than Significant Impact

The intended use of the facility and potential pollutants that would be encountered in storm water runoff, after the project is constructed, is not anticipated to change from its current condition. The groundwater elevation within this corridor historically fluctuates but is not anticipated to permanently impact proposed drainage appurtenances, storm water treatment, or other design features. Additionally, due to excavation occurring on a temporary and short-term basis, during the construction period, groundwater resources should not be affected, and it is not anticipated that the project would negatively impact regional sustainable groundwater management (within the project vicinity). Therefore, there is a less than significant impact to substantial groundwater impacts. No mitigation is proposed.

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;

Less Than Significant Impact

Compliance with the Construction General Permit (GCP) is anticipated to address all potential impacts to hydrology and water quality. It is expected that standard construction erosion control measures would be utilized to avoid erosion and siltation for the duration of project activities. BMP measures and field implementation strategies would be outlined in the Contractor prepared and Caltrans approved SWPPP. These would likely include temporary soil stabilization measures, linear sediment barriers (i.e., silt fence, gravel bag berms, fiber rolls), and construction site waste management (i.e., concrete washout, construction materials storage, litter/ waste management) among other approved controls. No substantial erosion onsite or offsite is anticipated. This impact is less than significant. No mitigation is proposed.

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

Less Than Significant Impact

It is anticipated that drainage system design would focus on perpetuating existing highway drainage conditions to the greatest extent feasible. New drainage features would be designed to perpetuate flow in the existing direction and would have similar or greater capacity than what currently exists in support of current design standards and the proposed design features for the project. No substantial increase in rate or amount of surface runoff is anticipated. This impact is less than significant. No mitigation is proposed.

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

Less Than Significant Impact

Drainage appurtenances, within the project limits, would be designed to accommodate the anticipated change in flow. In compliance with Caltrans' MS4 Permit, treatment BMPs would be incorporated into the project design, where applicable and feasible, to treat the new impervious area anticipated for the project. The implementation of BMPs meant to treat general pollutants would be evaluated and an analysis of site characteristics to optimize water quality volume/water quality flow and maximize site perviousness would be performed. The proposed project is not anticipated to create or contribute to a change in drainage flow with the implementation of BMPs. This impact is less than significant. No mitigation is proposed.

iv) Impede or redirect flood flows?

Less Than Significant Impact

It is anticipated that the site characteristics, pertaining to final drainage flow and functionality, would remain (in large part) similar to what currently occurs and exists. At this time, preliminary hydraulic analyses show no significant impact to the floodplain or base flood elevations for the nearby slough or surrounding system. The proposed project is not anticipated impede or redirect flood flows. This impact is less than significant. No mitigation is proposed.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact

Based on Floodplain Evaluation Summary (September 2020), the proposed project is located in FEMA flood map 06115C0340D and portions of the proposed project are located within the 100-year floodplain, however, based on

the project, there is no impact to flood hazard. The project proposes to set back the Marysville Ring Levee but it is not a significant encroachment into the floodplain. Additionally, the project location is not adjacent to any tsunami or seiche zones.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less Than Significant Impact

The proposed project may require coordination with the local municipality, responsible for implementing NPDES/MS4 Phase II urban storm water management, to ensure regional permit and programmatic compliance. At this time, it is expected that temporary and permanent impacts to local water quality basin and groundwater management plans would be minimized and/or avoided through the use of Best Management Practices and NPDES permit compliance (i.e., CGP and Caltrans' MS4), as previously described (in detail) within this document. The proposed project is not anticipated to conflict with or obstruct implementation of a water quality control plan.

3.13 Land Use and Planning

CEQA Significance Determinations for Land Use and Planning

Would the project:

a) Physically divide an established community?

No Impact

The project would not physically divide an established community. Currently, the neighborhoods existing on either side of SR 70 are already divided due to intermittent traffic congestion and limited crossing opportunities for various modes of travel. However, with the build alternatives although the highway would be wider, the project would in fact enhance community cohesion and combine the two sides of the highway, rather than divide an established community. The project would provide more access opportunities for all modes of transportation, including safe crossing for pedestrians, bicyclists, elderly populations with ADA compliant sidewalks, transit users, and vehicles. In addition, complete streets elements like tree lined streets, aesthetic features and ADA sidewalk networks would enhance the experience of walking and/or bicycling in the project area. Therefore, there would be a no impact to dividing an established community.

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?

No Impact

The project would not be converting any land use designations; therefore, the Build Alternatives would not change the land use designations or zoning in the study area. There is no impact to land use.

3.14 Mineral Resources

CEQA Significance Determinations for 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?

No Impact

There are no known mineral resources within or near the project area. Therefore, there is no impact to mineral resources.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact

There are no know mineral resource recovery sites within or near the project area. There is no impact to mineral resource recovery sites.

3.15 Noise

CEQA Significance Determinations for 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?

Less Than Significant Impact

Highway Noise

For existing conditions, traffic noise levels are predicted to be in the range of 44 to 72 dBA $L_{eq}(h)$. Under no-build conditions, traffic noise levels are predicted to range from 46 to 74 dBA $L_{eq}(h)$. Also, under the design-year build condition, highest hourly traffic noise levels at outdoor areas of frequent human use would

be up to 74 dBA L_{eq}(h) at residential use. Predicted traffic noise levels under the design-year build condition would result in increases of up to 7 dBA compared to existing conditions. An increase of this magnitude would be less than the threshold of impact for a substantial increase in traffic noise levels (12 dBA above existing levels).

However, future traffic noise levels under design-year build conditions are predicted to approach or exceed the NAC at outdoor areas of frequent human use associated with Activity Category B (residential) and Activity Category C (e.g., cemetery, park, studio, trail, etc.) land uses in the project area. As such, traffic noise impacts are predicted to occur due to operation of this project, and noise abatement must be considered. Noise Abatement Analysis was conducted to see if abatement measures were feasible or not.

Railroad Noise

Alternative 1

Noise exposure from the proposed project is predicted to result in no impacts under Alternative 1. The location of greatest increase is an apartment building on Clement Way, which would have an increase of 1.3 dBA due to the shift in railroad track location under this alternative

Alternative 2

Noise exposure from the proposed project is predicted to result in moderate impacts at 6 residential buildings under alternative 2, including an apartment building and 5 single-family residences. No server noise impacts are predicted. The location of greatest increase is a single-family residence on Elm Street, which would have an increase of 2.9 dBA due to the shift in railroad track location under this alternative.

b) Generation of excessive groundborne vibration or groundborne noise levels?

No Impact - Alternative 1

There are no permanent vibration impacts under Alternative 1; therefore, there is no impact for Alternative 1 regarding relocation of the railroad tracks.

Significant Impact - Alternative 2

Alternative 2 – For train vibration impacts, pertaining to Alternative 2, and only pertaining to certain sensitive receptors within the project area, significant impacts are expected as the future noise levels would approach or exceed the noise threshold as defined in the FTA guidance. Several options were considered to reduce train vibration, including buffer zones, vibration reducing track support system on the rails and trenches filled with material to cancel groundborne vibrations. However, it may not be possible to reduce vibration levels below the FTA criteria due to design and utility constraints or cost considerations. Feasibly of these measures will be considered during the design phase if Alternative 2 is selected.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact

There are no airport facilities within two miles of the project area, therefore there is no impact.

3.16 Population and Housing

CEQA Significance Determinations for Population and Housing

Would the project:

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)?

Less Than Significant Impact

The project would not induce unplanned growth in the surrounding area. The City of Marysville is a town with limited growth potential due to geographical restrictions like levees and rivers. None of the Build Alternatives would result in changes in accessibility to existing locations and there would be no changes to land use. In addition, growth is not anticipated because of the operational improvements to the SR 70 corridor as that change in access would not necessarily cause an individual to move to the area because of an improvement in travel time on the corridor. Project-related growth is not anticipated to occur, therefore there is a less than significant impact to growth. No mitigation is proposed.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Less than Significant Impact

Alternative 1: Alternative 1 would acquire one residential single-family residence. Based on the Relocation Impact Study, there adequate replacement housing to compensate for the removal of one residential property. In addition, property owners would be paid fair market value. Therefore, for Alternative 1 there is less than significant impact. No mitigation is proposed.

Less than Significant Impact with Mitigation Incorporated

Alternative 2: Alternative 2 acquires 18 residential properties, which includes 7 single-family residences and 11 multi-family residences. Although property owners would still be paid fair market value, the Relocation Impact Study states xxx. Therefore, for Alternative 2, there is less than significant impact with mitigation incorporated from permanent loss of affordable housing.

3.17 3.2.15 Public Services

CEQA Significance Determinations for 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?

Less Than Significant Impact

. This project and project area is not within or adjacent to a high fire hazard and is not located in any fire hazard area, according to the Calfire “State Responsibility Area” map and the “Local Responsibility Area” map. Additionally, the build alternatives would not result in direct impacts on medical facilities or fire or police stations. Lane closures will be limited to nighttime, off peak hours, During construction, only one lane will be closed during overnight hours when volumes are low. Emergency services will provide access at all times. Any required closures would be coordinated with emergency service providers so as not to hinder emergency responses. The build alternatives are not anticipated to adversely affect response time for emergency services associated with fire station or police department personnel.

Police protection?

Less Than Significant Impact

During construction, measures would be taken to ensure that emergency services would not be affected. After the project is constructed, emergency service routes would be enhanced with a wider roadway, additional lanes for traffic control, and wide shoulders. There would be less than significant impact to police protection services.

Schools?

Less Than Significant Impact

During construction, measures would be implemented to ensure that school transportation flow would commence as usual. After construction of the project, transportation elements such as complete streets, continuous sidewalks, enhanced school bus access, and improved bicycle connectivity, would provide an improved transportation facility that compliments the school. Therefore, there would be a less than significant impact to schools.

Parks?

Less than Significant Impact

During construction measures would be taken to minimize the disruption park access and/or parking. A storage container belonging to the Little League Field, located on the corner of Chestnut Street and 17th Street, would need to be relocated to construct the Marysville RR structure. However, Caltrans would replace or move that storage container to an adjacent area of the Little League Field. There would be no impacts for Ellis Lake Park. East Lake Park, adjacent Yuba Street, would have minimal impacts which would not affect the functionality of the park. After construction of the project, the project area would be enhanced with ADA compliance and complete streets measures, which would complement the adjacent existing parks.

Other public facilities?

No Impact

There would be no impact to other public facilities. The project would provide more accessibility to public facilities with the addition of complete streets elements.

3.18 Recreation

CEQA Significance Determinations for 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?

No Impact

The proposed project would not increase the use of existing neighborhood or regional parks or recreational facilities or contribute to their physical deterioration., Rather the project would increase recreational opportunities for all users of the highway, by including complete streets principals. Therefore, there is no impact to the possibility of substantial physical deterioration of recreational facilities.

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?

Less than Significant Impact

The project limits contain the Colusa Casino Baseball diamond (14th and SR 70), East Lake park (east of Yuba Street), and the Little League Field (south of high school). Those locations would require a Temporary Construction Easement (TCE) in order to construct xxx. No construction or expansion of recreational facilities would occur. The proposed project would increase recreational opportunities for all users of the highway, by including complete streets principals. Therefore there is a less than significant impact to recreational facilities. No mitigation is proposed.

3.19 Transportation

CEQA Significance Determinations for Transportation

Would the project:

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

No Impact

This project is consistent with the circulation system of the local community plan. Transit, bicycle, and pedestrian facilities would be enhanced with the implementation of this project.

The project is consistent with and included in SACOG financially constrained 2019-2022 Metropolitan Transportation Improvement Program. The SACOG and 2019-2022 Metropolitan Transportation Improvement Program was determined to conform by FHWA and FTA on December 17, 2018. The design concept and scope of the proposed project is consistent with the project description in the 2019-22 MTIP, and the “open to traffic” assumptions of the SACOG regional emissions analysis. The project is also consistent with Caltrans’ Interregional Transportation Strategic Plan, which identifies SR 70 as one of 34 High Emphasis Routes that are of particular importance from a statewide perspective. SR 70 is further designated as one of 10 Focus Routes in California. The project would not conflict with any plans, rather it would implement these plans. No impact would occur.

b) Conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Less Than Significant Impact

The Project Development Team determined that the appropriate metric to use to analyze traffic impacts pursuant to section 15064.3(b) includes an analysis of VMT/induced demand in addition to LOS analysis. Lead agencies can evaluate induced travel quantitatively by applying the results of existing studies that examine the magnitude of the increase of VMT resulting for a given increase in lane miles. These studies estimate the percent change in VMT for every percent change in miles to the roadway system. Based on existing studies, the Transportation Analysis Report (Fehr & Peers March 2019) estimated the short-term response for induced travel to range from 1,500 to 9,280 vehicle miles traveled per day, which is a change of 0.03 to 0.15 percent on a regional basis. Therefore, less than significant impact. No mitigation is proposed.

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

No Impact

This project would not introduce any non-standard features or any other features which would cause unforeseen hazards or the facility to be inoperable for incompatible equipment, such as farm machinery, extra wide -load trucks, or military freight.

d) Result in inadequate emergency access?

Less Than Significant Impact

During construction, only one lane will be closed during overnight hours when volumes are low. Emergency services will be provided access at all times. Any required closures would be coordinated with emergency service providers as not to hinder emergency responses. After the project is constructed, emergency service routes would be enhanced with a wider roadway, additional lanes for traffic control, and wide shoulders. There would be no impact to police protection services. Construction will ensure the safety plans include multiple layers of emergency notification and two-way communication capabilities with staff and with first responders to reduce confusion and enable quick, decisive action.

3.20 Tribal Cultural Resources

CEQA Significance Determinations for 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

No Impact

Caltrans, in consultation with local Native American tribes, has determined that there are no tribal cultural resources within the APE.

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 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.

No Impact

Caltrans, in consultation with local Native American tribes, has determined that there are no tribal cultural resources within the APE.

3.21 Utilities and Service Systems

CEQA Significance Determinations for 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?

Less Than Significant Impact

Due to the proposed project's design features, there will be utility relocation required for each alternative. Existing utilities around the project area include overhead telephone/communication lines and electrical power lines, underground fiber optics, as well as underground gas, petroleum, sewer and water.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

No Impact

Project does not impact water supply infrastructure.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No Impact

Project does not create new wastewater treatment demand.

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?

Less Than Significant Impact

The proposed project would generate some waste material. Asphalt, concrete, trenching spoils, and other excavated material would be reused by construction crews on-site to the greatest extent feasible. Material that cannot be reused as backfill for proposed project or any future projects would be hauled to local asphalt manufacturers and/or recyclers or transported to appropriate disposal facilities. The quantity of construction-related materials transported to the landfills would be minor relative to the daily volumes handled at the disposal facilities and would not substantially affect their remaining capacities. Therefore, solid waste-related impacts would be less than significant. No mitigation is proposed.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less Than Significant Impact

The proposed project would operate in accordance with the Solid Waste Management Policy Plans by including recycling activities as part of the proposed project. As identified in d), above, landfills serving the site would have sufficient capacity to accommodate project construction solid waste disposal needs, and the disposal of project refuse would not require the need for new or expanded landfill facilities. Therefore, the proposed project would comply with federal, state, and local statutes and regulations related to solid waste disposal limits and landfill capacities This impact would be less than significant. No mitigation is proposed.

3.22 Wildfire

CEQA Significance Determinations for 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?

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?

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?

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?

No Impact

This project and project area is not within or adjacent to a high fire hazard and is not located in any fire hazard area, according to the Calfire “State Responsibility Area” map and the “Local Responsibility Area” map. Therefore, there is no impact for wildfire as a result of this project. Construction will ensure the safety plans include multiple layers of emergency notification and two-way communication capabilities with staff and with first responders to reduce confusion and enable quick, decisive action.

3.23 Mandatory Findings of Significance

CEQA Significance Determinations for 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?

Less than Significant Impact

The proposed project does not have to potential to substantially degrade animal, plant species or communities. Nor does it have the potential to eliminate important examples of California rich history. The small wetland removed does not contain any special status species and is also isolated and degraded. The department would purchase mitigation credits for the wetland take, however this does not mean that the take of the wetland is an adverse effect, rather the mitigation credits are to satisfy agency requirements, in this case USACE and Waterboard.

The project would realign the UPRR tracks, however this action does not alter or degrade the California history or pre-history associated with the RR tracks as the tracks would remain the same character and general location, as depending on the alternative selected would be realigned slightly to the east or west or would remain in the same alignment after being replaced with new UP structures.

Although the Hashimoto House was found eligible for the National Register of Historic Places, the project would only impact the driveway access point of the historic residence. This action would not degrade this important piece of California history.

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.)

Less Than Significant Impact

The project would have cumulative effects on Air Quality. With adjacent projects north of the project area planning to widen SR 70 to four travel lanes with a middle turn pocket, there would be slight air quality affects to the environment.

c) Does the project have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly?

Less than Significant Impact with Mitigation

For Alternative 1, the project does not have substantial adverse effects on human beings, either directly, or indirectly. The project would enhance travel opportunities, such as pedestrian and bicycle access and relieve current traffic conditions with the implementation of the project's intersection improvements and operational improvements.

For Alternative 2, the project does have a substantial adverse effect on human beings directly and indirectly, particularly on existing housing and on environmental justice community located in the northwest section of the project area. This population would be affected directly by permanently acquiring residential properties occupied by environmental justice community members. This build alternative would also acquire a local Veteran's Hall, which contains elderly individuals, also a part of the environmental justice community. In addition, indirect impacts to environmental justice communities would occur with train noise and vibration increases.

3.24 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 (also known as 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 greenhouse gas emissions reduction and climate change research and policy. These efforts are primarily concerned with the emissions of greenhouse gases generated by human activity, including carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF_6), and various hydrofluorocarbons (HFCs). CO_2 is the most abundant greenhouse gas; while it is a naturally occurring component of Earth's atmosphere, fossil-fuel combustion is the main source of additional, human-generated CO_2.

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 greenhouse gas 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 would include a discussion of both.

Regulatory Setting

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

Federal

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

The National Environmental Policy Act (known as NEPA) (42 U.S. Code 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 (also known as 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. The Federal Highway Administration 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.5 This approach encourages planning for sustainable highways by addressing climate risks while balancing environmental, economic, and social values—"the triple bottom line of sustainability."6 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 made 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 U.S. Code 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 Corporate Average Fuel Economy 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

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5 https://www.fhwa.dot.gov/environment/sustainability/resilience/

6 https://www.sustainablehighways.dot.gov/overview.aspx

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 greenhouse gas emissions and climate change by passing multiple Senate and Assembly bills and executive orders including, but not limited to, the following:

Executive Order S-3-05 (June 1, 2005): The goal of this order is to reduce California's greenhouse gas 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 greenhouse gas emissions reduction goals outlined in Executive Order S-3-05, while further mandating that the California Air Resources Board (ARB) create a scoping plan and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." The Legislature also intended that the statewide greenhouse gas emissions limit continue in existence and be used to maintain and continue reductions in emissions of greenhouse gases beyond 2020 (Health and Safety Code [H&SC] Section 38551(b)). The law requires the Air Resources Board to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective greenhouse gas reductions.

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

year 2020. The Air Resources Board re-adopted the low carbon fuel standard 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 greenhouse gas reduction goals.

SB 375, Chapter 728, 2008, Sustainable Communities and Climate Protection: This bill requires the Air Resources Board 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 would 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.

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

Executive Order B-30-15 (April 2015) establishes an interim statewide greenhouse gas emission reduction target of 40 percent below 1990 levels by 2030 to ensure California meets its target of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050. It further orders all state agencies with jurisdiction over sources of greenhouse gas emissions to implement measures, pursuant to statutory authority, to achieve reductions of greenhouse gas emissions to meet the 2030 and 2050 greenhouse gas emissions reductions targets. It also directs the Air Resources Board to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent (MMTCO2e).7 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 greenhouse gas reduction targets established in Executive Order 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,

[7] Greenhouse gases differ in how much heat each trap in the atmosphere (global warming potential, or GWP). CO_2 is the most important greenhouse gas, so amounts of other gases are expressed relative to CO_2, using a metric called "carbon dioxide equivalent" (CO_2e). The global warming potential of CO_2 is assigned a value of 1, and the global warming potential of other gases is assessed as multiples of CO_2.

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 traveled, 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 the Air Resources Board to prepare a report that assesses progress made by each metropolitan planning organization in meeting its 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 greenhouse gas emissions.

EO N-19-19 (September 2019) advances California's climate goals in part by directing the California State Transportation Agency to leverage annual transportation spending to reverse the trend of increased fuel consumption and reduce GHG emissions from the transportation sector. It orders a focus on transportation investments near housing, managing congestion, and encouraging alternatives to driving. This EO also directs ARB to encourage automakers to produce more clean vehicles, formulate ways to help Californians purchase them, and propose strategies to increase demand for zero-emission vehicles.

Environmental Setting

The project sits along State Route 70 in Yuba County on the northern edge of the City of Marysville. Land uses in the area surrounding the proposed project consist of Two-Family Residence, General Commercial, Light Industrial, and Secondary Open Space. The proposed project is in an urban area with a well-developed road and street network. Traffic congestion during peak hours is not uncommon in the project area. SR 70 is the primary north-south travel route through Yuba County, for both passenger and commercial vehicles.

Just south of the project area, SR 70 intersects with SR 20 which is also a key goods and services corridor, moving east and west. SR 70 within the project limits passes under two sets of RR tracks. These RR tracks carry several passenger and freight trains each day. SACOG guides transportation development in the project area. The Yuba County General Plan Health and Safety and Circulation elements address GHGs and/or involve sustainability policies in the project area.

A greenhouse gas emissions inventory estimates the amount of greenhouse gases discharged into the atmosphere by specific sources over a period of time,

such as a calendar year. Tracking annual greenhouse gas emissions allows countries, states, and smaller jurisdictions to understand how emissions are changing and what actions may be needed to attain emission reduction goals. The U.S. EPA is responsible for documenting greenhouse gas emissions nationwide, and the Air Resources Board does so for the state, as required by H&SC Section 39607.

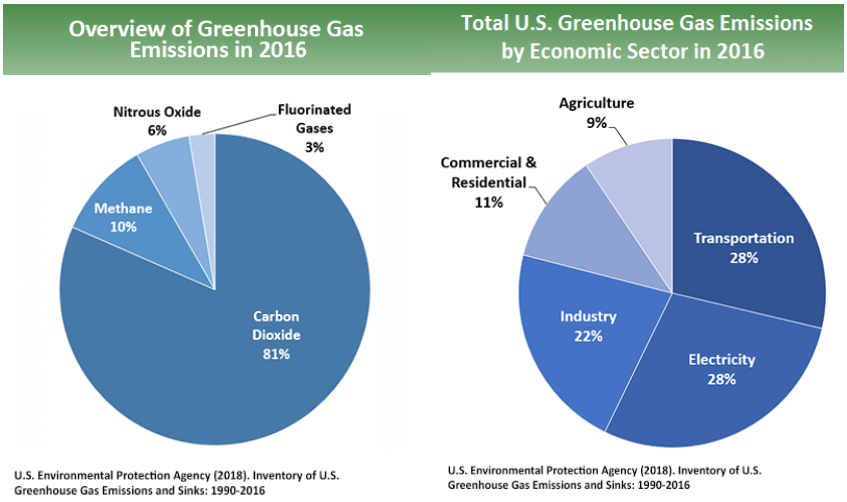
National Greenhouse Gas Inventory

The U.S. EPA prepares a national greenhouse gas 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 greenhouse gases in the United States, reporting emissions of CO_2, CH_4, N_2O, HFCs, perfluorocarbons, SF_6, and nitrogen trifluoride. It also accounts for emissions of CO_2 that are removed from the atmosphere by "sinks" such as forests, vegetation, and soils that uptake and store CO_2 (carbon sequestration). The 1990–2016 inventory found that of 6,511 $MMTCO_2e$ greenhouse gas emissions in 2016, 81% consist of CO_2, 10% are CH_4, and 6% are N_2O; the balance consists of fluorinated gases (U.S. EPA 2018).[8] In 2016, greenhouse gas emissions from the transportation sector accounted for nearly 28.5% of U.S. greenhouse gas emissions.

Figure 3.1 U.S. 2016 Greenhouse Gas Emissions

[8] U.S. Environmental Protection Agency. 2018. Inventory of U.S. Greenhouse Gas Emissions and Sinks. https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks

[9] California Air Resources Board (ARB). 2019a. *California Greenhouse Gas Emissions Inventory–2019 Edition*. https://ww3.arb.ca.gov/cc/inventory/data/data.htm. Accessed: August 21, 2019.



State Greenhouse Gas 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).[9]

[9] California Air Resources Board (ARB). 2019a. *California Greenhouse Gas Emissions Inventory–2019 Edition*. https://ww3.arb.ca.gov/cc/inventory/data/data.htm. Accessed: August 21, 2019.

Figure 3.2 California 2017 GHG Emissions

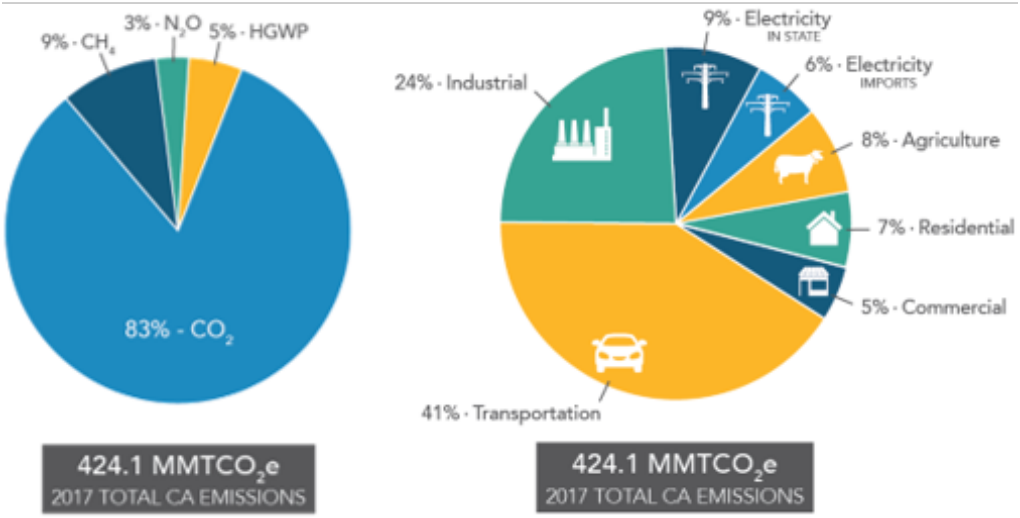
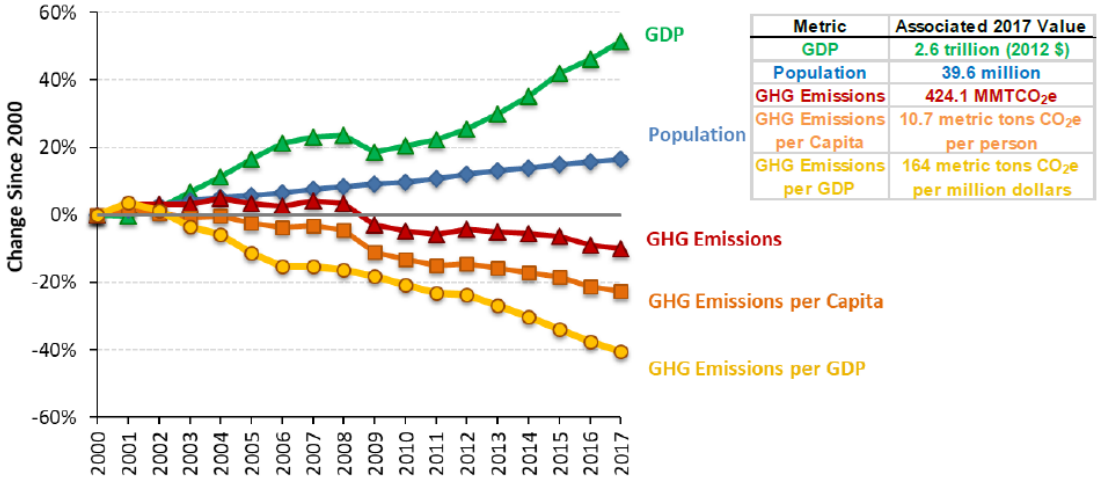


Figure 3.3 Change in California Gross Domestic Product, Population, and Greenhouse Gas Emissions since 2000 (*Source*: ARB2019b)[10]



AB 32 required ARB to develop a Scoping Plan that describes the approach California would 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

[10] California Air Resources Board (ARB). 2019b. *SB 375 Regional Plan Climate Targets*. https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets. Accessed: August 21, 2019.

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 would use to reduce GHG emissions.

Regional Plans

The Air Resources Board sets regional targets for California's 18 Metropolitan Planning Organizations to use in their Regional Transportation Plan/Sustainable Communities Strategies to plan future projects that would cumulatively achieve greenhouse gas reduction goals. Targets are set at a percent reduction of passenger vehicle greenhouse gas emissions per person from 2005 levels. The MPO for Yuba County is the Sacramento Area Council of Governments (SACOG). The regional reduction target for SACOG is 19 percent by 2035. This project is programmed in the SACOG Metropolitan Transportation Implementation Plan (MTIP, 2019-2021) and is proposed for funding from Statewide Transportation Improvement Program (STIP) (California Transportation Improvement Program System (CTIPS) ID 107-0000-1055). It is also listed in the 202 SACOG MTP/SCS project list. Table 1 below lists the GHG-related goals and polices of SACOG's MTP/SCS.

In 2015, SACOG also published the *Sacramento Region Transportation Climate Adaptation Plan* that sets forth principles, policies, and adaptation strategies for climate change impacts of extreme temperature; precipitation, runoff and flooding; wildfire; and landslides. It identifies measures that include incentivizing alternative modes and providing shade and safe alternate routes for walking and biking, using heat and rut-resistant materials and appropriate pavement mixtures and surfaces on roadways, railways, and bridges, and upgrading drainage systems and standard capacities (SACOG 2015: 28).11

The Draft EIR for Yuba County's 2030 General Plan Update points out that in Yuba County, buildout of the general plan would not create new sources of emissions (e.g., people and activities); rather, analysts developed metrics to assess whether the general plan would increase the GHG efficiency of the community—that is, reduce the rate of GHG emissions per capita and per employee). The plan describes policies and actions that promote increased GHG efficiency in all sectors during buildout, and in particular policies that would reduce VMT, such as travel demand management, increased density, shared parking, workforce housing, and support for shifts to transit, bike, and walking modes of travel (Yuba County 2011: 4.7-16, 4.7-20).[12]

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[11] Sacramento Area Council of Governments and Civic Spark. 2015. *Sacramento Region Transportation Climate Adaptation Plan*.

[12] Yuba County Planning Department. 2011. *Final Yuba County 2030 General Plan Environmental Impact Report*. Prepared by AECOM, Sacramento, CA. May. Available:

Table 3.1 Regional and Local GHG Reduction Plans

Title	GHG Reduction Policies or Strategies
Sacramento Area Council of Governments (SACOG) *2020 Metropolitan Transportation Plan/Sustainable Communities Strategy*	Prioritize state of good repair needs Transportation Demand Management Build and maintain a safe, resilient, and multimodal transportation system Invest in bicycle and pedestrian infrastructure Prioritize investments in transportation improvements that reduce greenhouse gas emissions and vehicle miles traveled.
Yuba County *2030 General Plan* (Adopted June 2011)	Health and Safety Goal 5 – GHG and Climate Change: Provide GHG efficient development patterns and successfully adapt to future changes in Yuba County's climate. Policy HS5.6: The County relies, in part on infrastructure planning and funding controlled by regional, state and other local agencies, and would work cooperatively with these agencies to provide infrastructure and public facilities needed to support GHG-efficient development pattern. Policy HS5.8: The County would actively pursue funding for GHG-efficient transportation systems and other needed infrastructure, building and public real energy efficiency upgrades, renewable energy production, land use-transportation modeling, and other projects to reduce local greenhouse gas emissions. Health and Safety Goal 6 – Construction and Climate Change: Use construction practices and operational strategies that minimize air pollution. Circulation Goal 16: Maintain a roadway system that provides adequate level of service, as funding allows, and that is consistent with the County's planning, environmental and economic policies. Policy CD16.1: The County would maintain roadway levels of service that recognize differences between urban and rural environments and consideration of other community character, economic, and environmental policies of the County. Policy CD16.11: The County would analyze and mitigate transportation impacts in CEQA documents according to their relative increase in vehicular travel demand.

https://www.yuba.org/departments/community_development/planning_department/general_plan.php. Accessed: August 26, 2020.

	Circulation Goal 18 – Regional Transportation Planning: Improved transportation access throughout the County and surrounding region. Policy CD18.1: The County would support regional transportation planning for roadway improvement within Yuba County identified by SACOG, Caltrans, and documented in the Metropolitan Transportation Plan and Highway Concept Reports. Policy CD18.8: The County would coordinate with Caltrans to implement context-sensitive improvements to State facilities that are keyed to local multi-modal transportation needs.

Project Analysis

GHG emissions from transportation projects can be divided into those produced during operation of the state highway system and those produced during construction. The main greenhouse gases produced by the transportation sector are CO_2, CH_4, N_2O, and HFCs. CO_2 emissions are a product of the combustion of petroleum-based products, like gasoline, in internal combustion engines. Relatively small amounts of CH_4 and N_2O are emitted during fuel combustion. In addition, a small amount of HFC emissions is 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.

Operational Emissions

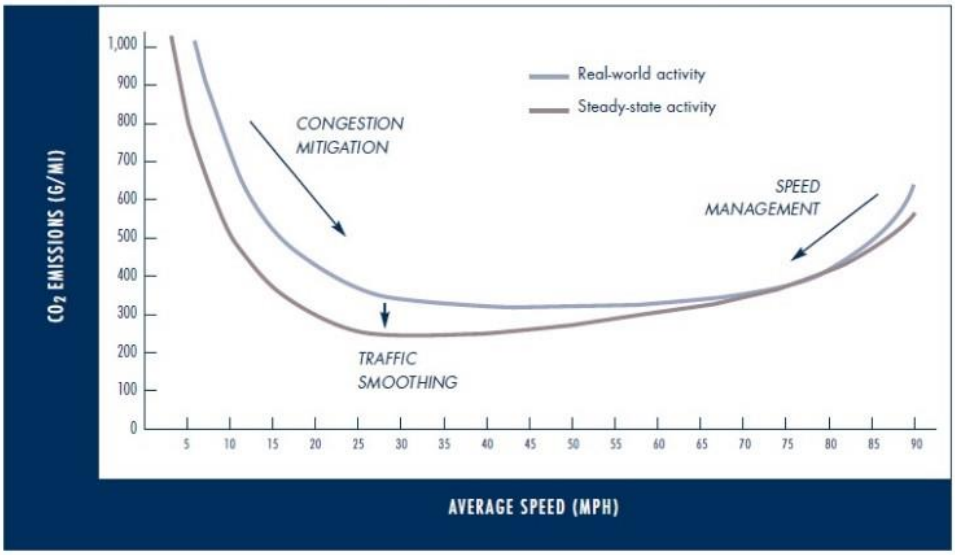
CO_2 accounts for 95 percent of transportation GHG emissions in the U.S. The largest sources of transportation-related GHG emissions are passenger cars and light-duty trucks, including sport utility vehicles, pickup trucks, and minivans. These sources account for over half of the emissions from the sector. 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 CO_2 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 CO_2 from mobile sources such as automobiles occur at stop-and-go speeds (0–25 miles per hour) and speeds over 55 miles per hour; the most severe emissions occur from 0–25 miles per hour (see Figure 1). To the extent that a project relieves congestion by enhancing operations and improving travel times in high-congestion travel corridors, GHG emissions, particularly CO_2, may be reduced.

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.

Figure 3.4: Possible Use of Traffic Operation Strategies in Reducing On-Road CO_2 Emissions



Source: Barth and Boriboonsomsin 2010[13]

The proposed project is listed in the 2020 SACOG MTP/SCS project list as "Marysville Railroad Bridge Rehab." The Draft EIR for the MTP/SCS found that mobile source GHG emissions region-wide would decrease between 2016 and 2050 based on estimates produced using SACOG's travel demand model, SACSIM, with EMFAC 2014. Implementation of SACOG's MTP/SCS was expected to meet Air Resources Board's regional target of 19 percent reduction in GHGs by 2035. The MTP/SCS promotes projects that reduce VMT and congestion and support multi-modal travel (transit, bike, walking, and new modes such as electric scooters) and complete streets. Performance metrics include pavement and bridge condition performance management and system performance management (smooth and reliable operations, including adding capacity where traffic bottlenecks form). While VMT is expected to increase in the project area due to population growth, the proposed project supports MTP/SCS goals by improving the roadway and bridge clearance, decreasing congestion, improving traffic flow, and providing better bicycle and pedestrian access than currently exists.

[13] Barth, Matthew and Kanok Boriboonsomsin. 2010. *Real-World Carbon Dioxide Impacts of Traffic Congestion*. Berkeley, CA: University of California Transportation Center. UCTC-FR-2010-11. Available: https://www.researchgate.net/publication/46438207

Quantitative Analysis

The proposed project is one of a set of contiguous projects on SR 70 in Yuba and Butte Counties. For these projects, a travel demand forecast model was developed starting from the Butte County Association of Governments' model and adding roadway network for the northwest portion of Yuba County along the SR 70 corridor including Marysville. SR 70 in Yuba County is covered by the Sacramento Area Council of Governments' (SACOG) SACSIM travel demand forecast model.

The roadway network and land use for the added northwest portion 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.

Using the travel demand forecast model, vehicle miles traveled (VMT) was measured over the entire model area. The analysis included consideration of induced travel demand.[14] Under horizon year conditions, the separate projects to widen SR 70 were assumed to be in place for both the No Build and Build Alternatives. As a result, both the No Build and Build Alternatives have the planned widening of SR 70 to four lanes from Cemetery Road in Marysville to East Gridley Road in Butte County.

Estimates of induced travel are discussed in Section 2.1.8 Traffic and Transportation.

The GHG emissions were calculated from two sources. The first uses estimates of VMT by 5-mph speed bin increments and the EMFAC 2017 emissions factors from the California Air Resources Board (CARB). Since the travel demand forecast model estimates speed at the link level, it cannot account for intersection-level speeds. As a result, fuel consumption estimates from the intersection capacity analysis were used as the second source. The intersection capacity analysis provides estimates of fuel consumption based on factors developed for the Transyt7F model in the 1990s (http://onlinepubs.trb.org/Onlinepubs/trr/1992/1360/1360-017.pdf), which were then converted to GHG based on the carbon content of gasoline, which is 19.6 pounds per gallon (US Energy Information Administration, Carbon Dioxide Emissions Coefficients, February 2016, https://www.eia.gov/environment/emissions/co2_vol_mass.php). The GHG emissions estimates from these two sources were combined and are presented in Tables 2 and 3 below.

[7] U.S. Department of Transportation (U.S. DOT). 2018. *National Highway Traffic Safety Administration Corporate*

[14] It should be noted that VMT by speed bin was estimated by expanding the travel demand forecasting model prepared for the SR 70 Segments 4-5 traffic analysis to include the City of Marysville. This model truncates trips at the model boundary and may not fully account for the VMT change associated with the Segments 4-5 and 7 projects.

Average Fuel Economy. https://www.nhtsa.gov/laws-regulations/corporate-average-fuel-economy. Accessed: August 21,2019

Table 3 2. Daily VMT and Peak Hour GHG Comparison

	Existing Year (2018)	Horizon Year 2043 Build Alternatives	Horizon Year 2043 No-Build Alternative
Daily VMT	6,029,277	8,611,528	8,611,481
Peak Hour GHG Emissions (tons) AM/PM	6.93/7.94	8.93/12.12	8.89/12.09

Table 3.3. Annual VMT and GHG Emissions Comparison

	Existing Year (2018)	Horizon Year 2043 Build Alternative	Horizon Year 2043 No-Build Alternative
Annual VMT	1,808,783,100	2,583,458,400	2,583,444,300
Annual GHG Emissions (tons)	1,029,923	1,024,593	1,026,038

Table 3.4. Annual VMT and GHG Emissions Comparison

Performance Measure	Existing Year (2018)	Horizon Year (2043)		
		Segments 4-5 No Build Alternative	Segment 7 No Build Alternative	Segments 4-5 & 7 Build Alternative
VMT	1,808,783,100	2,583,459,000	2,583,444,300	2,583,458,400
GHG Emissions[1]	1,029,923	1,020,604	1,026,038	1,024,593

Notes: 1. GHG is reported in tons per year.
Source: EMFAC2017 (CARB, 2017), Fehr & Peers (2019)

Widening SR 70 to four lanes (Build Alternative) would result in less GHG emissions than the existing year (2018) – more than 5,000 tons per year lower. Decreases in both the No Build and Build Alternatives are attributable to planned improvements in fuel efficiency and anticipated changes to alternative fuels (such as electric vehicles) over time. In addition, the Build Alternative would generate less GHG emissions than the Segment 7 No-Build Alternative. This can be attributed to the reduction in peak hour GHG emissions resulting from improved intersection operations.

In addition, this project promotes multi-modal transportation alternatives to vehicles, by adding sidewalks, enhancing bike accessibility and connectivity, adding ADA compliance, and building a complete streets project with active transportation features. In addition, planting trees and vegetation adjacent to the

highway, would help to minimize GHG emissions long term and promote active transportation, complying with California's vision of reduced emissions and enhanced livability.

While CT-EMFAC has a rigorous scientific foundation and has been vetted through multiple stakeholder reviews, its GHG emission rates are based on tailpipe emission test data.[15] Moreover, the model does not account for factors such as the rate of acceleration and vehicle aerodynamics, which influence the amount of emissions generated by a vehicle. GHG emissions quantified using CT-EMFAC are therefore estimates and may not reflect actual physical emissions. Though CT-EMFAC is currently the best available tool for calculating GHG emissions from mobile sources, it is important to note that the GHG results are only useful for a comparison among alternatives.

Construction Emissions

Construction greenhouse gas emissions would result from material processing, onsite construction equipment, and traffic delays due to construction. These emissions would be produced at different levels throughout the construction phase; their frequency and occurrence would, where possible, 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 greenhouse gas emissions produced during construction would be offset to some degree by longer intervals between maintenance and rehabilitation activities.

Construction emissions were calculated using the CAL-CET2018 model. Project construction on Segment 7 of the SR-70 corridor is estimated to generate a total of 2,593 tons of CO_2 over a 450-day construction period from 2023 to 2025 under either build alternative.

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 would comply with all ARB emission reduction regulations; and Section 14-9.02, Air

[15] This analysis does not currently account for the effects of the US National Highway Traffic Safety Administration and Environmental Protection Agency SAFE (Safer Affordable Fuel-Efficient) Vehicles Rule. Part One revoking California's authority to set its own greenhouse gas emissions standards was published on September 27, 2019 and effective November 26, 2019. The SAFE Vehicles Rule Part 2 would amend existing Corporate Average Fuel Economy (CAFE) and tailpipe carbon dioxide emissions standards for passenger cars and light trucks and establish new standards covering model years 2021 through 2026. The proposal would retain the model year 2020 standards for both programs through model year 2026. Although CARB has not yet provided adjustment factors for greenhouse gas emissions to be utilized in light of the SAFE Rule, modeling these estimates with EMFAC2017 or CT-EMFAC2017 remains the most precise means of estimating future greenhouse gas emissions.

Pollution Control, which requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes.

The project would also implement Caltrans standardized measures (such as construction best management practice) that apply to most or all Caltrans projects. Certain common regulations, such as equipment idling restrictions and development and implementation of a traffic control plan that reduce construction vehicle emissions also help reduce greenhouse gas emissions.

CEQA Conclusion

This proposed project has the potential for increased GHG emissions. However, analysis demonstrates that both future no-build and future build GHG emissions would be lower than GHG emissions under the existing condition (2018). This shows that building the project would contribute to substantial progress in reducing emissions statewide. Implementing standardized measures and construction best management practices would further reduce GHG emissions. Accordingly, the proposed project would not conflict with any plan, policy, or regulation for the reduction of GHGs. The impact would be less than significant.

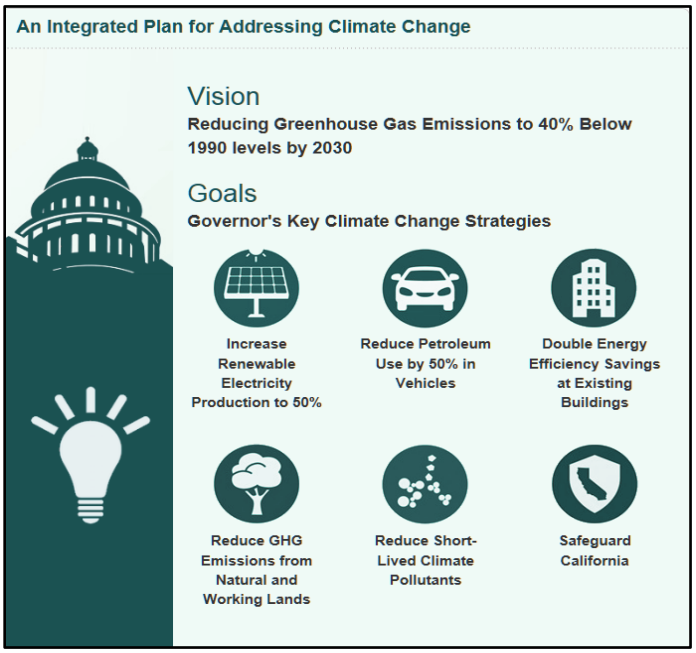
Caltrans is firmly committed to implementing measures to help reduce GHG emissions. These measures are outlined in the following section.

GREENHOUSE GAS REDUCTION STRATGIES

Statewide Efforts

Major sectors of the California economy, including transportation, would need to reduce emissions to meet the 2030 and 2050 greenhouse gas emissions targets. Former Governor Edmund G. Brown Jr. promoted greenhouse gas 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*. See Figure 3.

Figure 3.5 California Climate Strategy



The transportation sector is integral to the people and economy of California. To achieve greenhouse gas 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. Greenhouse gas emission reductions would 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.

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 forest lands, 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 Air Resources Board works to implement Executive Orders S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. Executive Order B-30-15, issued in April 2015, and SB 32 (2016) set an interim target to cut greenhouse gas 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 greenhouse gas emissions. In 2016, Caltrans completed the *California Transportation Plan 2040*, which establishes a new model for developing ground transportation systems, consistent with CO_2 reduction goals. It serves as an umbrella document for all the other statewide transportation planning documents. Over the next 25 years, California would 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 California Transportation Plan to meet California's climate change goals under AB 32. Accordingly, the California Transportation Plan 2040 identifies the statewide transportation system needed to achieve maximum feasible greenhouse gas emission reductions while meeting the state's transportation needs. While Metropolitan Planning Organizations have primary responsibility for identifying land use patterns to help reduce greenhouse gas emissions, the California Transportation Plan 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 greenhouse gas emissions, among other goals. Specific performance targets in the plan that would help to reduce greenhouse gas emissions include:

- Increasing percentage of non-auto mode share
- Reducing vehicle miles traveled
- Reducing Caltrans' internal operational (buildings, facilities, and fuel) greenhouse gas emissions

Funding and Technical Assistance Programs

In addition to developing plans and performance targets to reduce greenhouse gas 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 Regional Transportation Plan/Sustainable Communities Strategy; contribute to the State's greenhouse gas reduction targets and advance transportation-related greenhouse gas 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 would 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 greenhouse gas emissions resulting from agency operations.

Project-Level Greenhouse Gas Reduction Strategies

The following measures would also be implemented in the project to reduce greenhouse gas emissions and potential climate change impacts from the project. Caltrans staff would enhance the environmental training provided for contractor staff by adding a module on greenhouse gas reduction strategies, including limiting equipment idling time as much as possible.

The project includes improving bicycle and pedestrian access and complete streets elements that support alternative and active transportation modes to reduce use of single-occupancy vehicles.

The contractor would be required to:

- Reduce construction waste and maximize the use of recycled materials wherever possible.
- Incorporate measures to reduce the use of potable water.
- Seek to operate construction equipment with improved fuel efficiency by:
  - Properly tuning and maintaining equipment
  - Limiting equipment idling time
  - Using the right-size equipment for the job
- Caltrans Standard Specification 14-9.02, Air Pollution Control requires contractors to comply with all air-pollution control rules, regulations, ordinances, and statutes. Measures that reduce construction vehicle emissions also help reduce greenhouse gas emissions.
- A Transportation Management Plan (TMP) would be implemented to reduce impacts caused by potential traffic delays during construction.

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 would 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).[16]

The 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).[17]

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

[16] U.S. Global Change Research Program (USGCRP). 2018. *Fourth National Climate Assessment*. https://nca2018.globalchange.gov/. Accessed: August 21, 2019.
[17] U.S. Department of Transportation (U.S. DOT). 2011. *Policy Statement on Climate Change Adaptation*. June. https://www.fhwa.dot.gov/environment/sustainability/resilience/policy_and_guidance/usdot.cfm. Accessed: August 21, 2019.

guidance and tools for transportation planning that foster resilience to climate effects and sustainability at the federal, state, and local levels (FHWA 2019).18

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:[19]

- *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

[18] Federal Highway Administration (FHWA). 2019. *Sustainability*. https://www.fhwa.dot.gov/environment/sustainability/resilience/. Last updated February 7, 2019. Accessed: August 21, 2019.
[19] State of California. 2018. *California's Fourth Climate Change Assessment*. http://www.climateassessment.ca.gov/. Accessed: August 21, 2019.

factor(s). These factors include, but are not limited to: ethnicity, class, sexual orientation and identification, national origin, and income inequality. Vulnerability is often defined as the combination of sensitivity and adaptive capacity as affected by the level of exposure to changing climate.

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

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

EO S-13-08 also led to the publication of a series of sea-level rise assessment reports and associated guidance and policies. These reports formed the foundation of an interim *State of California Sea-Level Rise Interim Guidance Document* (SLR Guidance) in 2010, with instructions for how state agencies could incorporate "sea-level rise (SLR) projections into planning and decision making for projects in California" in a consistent way across agencies. The guidance was revised and augmented in 2013. *Rising Seas in California – An Update on Sea-Level Rise Science* was published in 2017 and its updated projections of sea-level rise and new understanding of processes and potential impacts in California were incorporated into the *State of California Sea-Level Rise Guidance Update* in 2018.

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

AB 2800 (Quirk 2016) created the multidisciplinary Climate-Safe Infrastructure Working Group, which in 2018 released its report, *Paying it Forward: The Path Toward Climate-Safe Infrastructure in California*. The report provides guidance to agencies on how to address the challenges of assessing risk in the face of inherent uncertainties still posed by the best available science on climate

change. It also examines how state agencies can use infrastructure planning, design, and implementation processes to address the observed and anticipated climate change impacts.

Caltrans Adaptation Efforts

CALTRANS VULNERABILITY ASSESSMENTS

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

- *Exposure* – Identify Caltrans assets exposed to damage or reduced service life from expected future conditions.

- *Consequence* – Determine what might occur to system assets in terms of loss of use or costs of repair.

- *Prioritization – Develop a method for making capital programming decisions to address identified risks, including considerations of system use and/or timing of expected exposure.*

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

Project Adaptation Analysis

Sea Level Rise

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

Floodplains Analysis

Most climate scientists predict that climate change would result in less precipitation overall in California, but with increased intensity of individual rain events. How frequent and how intense such storms would be is uncertain.

Design of transportation facilities often includes as a variable a standard of 100-year return period storm events. “Return period storm event” is the historical intensity of storms based on how often such level of storms have occurred in the past. The Caltrans Climate Change Vulnerability Report assessed how 100-year storm precipitation is likely to change in District 3 based on best available precipitation projections (Caltrans 2019).[1] The assessment projects 0.0 to 4.9 percent increase in 100-year storm precipitation in the project area for the 2085 RCP 8.5 50th percentile.

The proposed project is located in FEMA flood map 06115C0340D and portions of the proposed project are located within the 100-year floodplain. A detailed hydraulic analysis of system performance would be conducted for a full range of hydrologic loading scenarios (0.5- through 0.0 percent chance exceedance probability, or 2-year to 100-year conditions) with and without the project. A detailed hydrologic and hydraulic analysis has not yet been performed for this project. There are still three drainage alternatives under consideration and are discussed in the project description and hydrology section. The proposed project include~~s~~ drainage improvements at the Marysville railroad and Binney Junction railroad underpasses, however this has yet to be determined. Hydrology calculations should use the projected 5.0 percent increase in precipitation due to climate change in the analysis. Lowering the highway at the Marysville RR Underpass and Binney Junction underpass would require significant modifications to the existing drainage systems including the Binney Junction Pump Plant.

Wildfire

The proposed project is in an urban area and not in a very high fire hazard severity zone (California Department of Forestry and Fire Protection, 2007).

[1] California Department of Transportation. 2019. *Caltrans Climate Change Vulnerability Assessments*. District 3 Technical Report. Prepared by WSP. https://dot.ca.gov/programs/transportation-planning/2019-climate-change-vulnerability-assessments. Accessed: August 27, 2020.

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.

4.1 Scoping Process for the EIR/EA

4.1.1 Notice of Preparation

Caltrans, as CEQA Lead Agency, distributed a Notice of Preparation of a Draft Environmental Impact Report for the proposed project on May 26, 2020: A copy of the NOP is included in Appendix D. The Notice of Preparation requested comments from the public regarding environmental issues, reasonable alternatives and reasonable mitigation measures that should be discussed in the Draft Environmental Impact Report to address each agency's specific concerns in their areas of responsibility. The 30-day comment period closed on June 25, 2020.

Chapter 5 List of Preparers

The following Caltrans District 3 staff contributed to the preparation of this Environmental Impact Report.

Cameron Knudson, Transportation Engineer. Contribution: Project Manager

Scott Foster, Senior Transportation Engineer. Contribution: Project Engineer

Thaleen Bhatall, D-3 Office Chief (Acting). Contribution: Document review

Sandra Rosas, NEPA Assignment Coordinator. Contribution: Document review

Tracy Robinson, Environmental Scientist. Contribution: Environmental Coordinator and Document Writer

Sydney Eto, Associate Scientist. (Natural Sciences) Contribution: Project Biologist, Natural Environmental Study (NES)

Catherine Davis, Associate Environmental Planner (Archaeology). Contribution: Reviewer for Archaeological Survey Report (ASR), Historic Property Survey Report (HPSR)

Nasar Nawid/Jagdeep Bhullar, Transportation Engineer. Contribution: Traffic Operations Study

Ryan Pommerenck, Transportation Engineer. Contribution: reviewer Air Quality, Noise Study, Railroad Noise and Vibration Report.

Jarod Barkley, NPDES Coordinator. Contribution: Water Quality Assessment

Lorenzo Ibarra, Landscape Architect. Contribution: Visual Impact Assessment

Alamjit Mangat, Hazardous Waste Specialist: Contribution: Initial Site Assessment

Rajpreet Bihala, Environmental Scientist. Contribution: Climate Change Policy Advisor, GHG Reviewer.

Jennifer Jones, Environmental Planner. Contribution: Climate Change Policy Advisor, GHG Reviewer.

Appendix A Title VI Policy Statement

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY Gavin Newsom, Governor

DEPARTMENT OF TRANSPORTATION
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Making Conservation a California Way of Life.

May 2019

NON-DISCRIMINATION POLICY STATEMENT

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964, ensures *"No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance."*

Related federal statutes, remedies, and state law further those protections to include sex, disability, religion, sexual orientation, and age.

For information or guidance on how to file a complaint, please visit the following web page: http://www.dot.ca.gov/obeo/TitleVI.html.

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

Original signed by

LAURIE BERMAN
Director

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

Appendix B Summary of Relocation Benefits

California Department of Transportation Relocation Assistance Program

Declaration of Policy

"The purpose of this title is to establish a *uniform policy for fair and equitable treatment* of persons displaced as a result of federal and federally assisted programs in order that such persons *shall not suffer disproportionate injuries* as a result of programs designed for the benefit of the public as a whole."

The Fifth Amendment to the U.S. Constitution states, "No Person shall…be deprived of life, liberty, or property, without due process of law, nor shall private property be taken for public use without just compensation." The Uniform Act sets forth in statute the due process that must be followed in Real Property acquisitions involving federal funds. Supplementing the Uniform Act is the government-wide single rule for all agencies to follow, set forth in 49 Code of Federal Regulations (CFR) Part 24. Displaced individuals, families, businesses, farms, and nonprofit organizations may be eligible for relocation advisory services and payments, as discussed below.

Fair Housing

The Fair Housing Law (Title VIII of the Civil Rights Act of 1968) sets forth the policy of the United States to provide, within constitutional limitations, for fair housing. This act, and as amended, makes discriminatory practices in the purchase and rental of most residential units illegal. Whenever possible, minority persons shall be given reasonable opportunities to relocate to any available housing regardless of neighborhood, as long as the replacement dwellings are decent, safe, and sanitary and are within their financial means. This policy, however, does not require Caltrans to provide a person a larger payment than is necessary to enable a person to relocate to a comparable replacement dwelling.

Any persons to be displaced would be assigned to a relocation advisor, who would work closely with each displacee in order to see that all payments and benefits are fully utilized and that all regulations are observed, thereby avoiding the possibility of displacees jeopardizing or forfeiting any of their benefits or payments. At the time of the initiation of negotiations (usually the first written offer to purchase), owner-occupants are given a detailed explanation of the state's relocation services. Tenant occupants of properties to be acquired are contacted soon after the initiation of negotiations and also are given a detailed explanation of the Caltrans Relocation Assistance Program. To avoid loss of possible benefits, no individual, family, business, farm, or nonprofit organization should commit to purchase or rent a replacement property without first

contacting a Caltrans relocation advisor.

Relocation Assistance Advisory Services

In accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, Caltrans would provide relocation advisory assistance to any person, business, farm, or nonprofit organization displaced as a result of the acquisition of real property for public use, so long as they are legally present in the United States. Caltrans would assist eligible displacees in obtaining comparable replacement housing by providing current and continuing information on the availability and prices of both houses for sale and rental units that are

"decent, safe, and sanitary." Nonresidential displacees would receive information on comparable properties for lease or purchase (for business, farm, and nonprofit organization relocation services, see below).

Residential replacement dwellings would be in a location generally not less desirable than the displacement neighborhood at prices or rents within the financial ability of the individuals and families displaced, and reasonably accessible to their places of employment. Before any displacement occurs, comparable replacement dwellings would be offered to displacees that are open to all persons regardless of race, color, religion, sex, national origin, and consistent with the requirements of Title VIII of the Civil Rights Act of 1968. This assistance would also include the supplying of information concerning federal and state assisted housing programs and any other known services being offered by public and private agencies in the area.

Persons who are eligible for relocation payments and who are legally occupying the property required for the project would not be asked to move without first being given at least 90 days written notice. Residential occupants eligible for relocation payment(s) would not be required to move unless at least one comparable "decent, safe, and sanitary" replacement dwelling, available on the market, is offered to them by Caltrans.

Residential Relocation Payments

The Relocation Assistance Program would help eligible residential occupants by paying certain costs and expenses. These costs are limited to those necessary for or incidental to the purchase or rental of a replacement dwelling and actual reasonable moving expenses to a new location within 50 miles of the displacement property. Any actual moving costs in excess of the 50 miles are the responsibility of the displacee. The Residential Relocation Assistance Program can be summarized as follows:

Moving Costs

Any displaced person, who lawfully occupied the acquired property, regardless of the length of occupancy in the property acquired, would be eligible for reimbursement of moving costs.

Displacees would receive either the actual reasonable costs involved in moving themselves and personal property up to a maximum of 50 miles, or a fixed payment based on a fixed moving cost schedule. Lawful occupants who move into the displacement property after the initiation of negotiations must wait until Caltrans obtains control of the property in order to be eligible for relocation payments.

Purchase Differential

In addition to moving and related expense payments, fully eligible homeowners may be entitled to payments for increased costs of replacement housing.

Homeowners who have owned and occupied their property for 90 days or more prior to the date of the initiation of negotiations (usually the first written offer to purchase the property), may qualify to receive a price differential payment and may qualify to receive reimbursement for certain nonrecurring costs incidental to the purchase of the replacement property. An interest differential payment is also available if the interest rate for the loan on the replacement dwelling is higher than the loan rate on the displacement dwelling, subject to certain limitations on reimbursement based upon the replacement property interest rate.

Rent Differential

Tenants and certain owner-occupants (based on length of ownership) who have occupied the property to be acquired by Caltrans prior to the date of the initiation of negotiations may qualify to receive a rent differential payment. This payment is made when Caltrans determines that the cost to rent a comparable “decent, safe, and sanitary” replacement dwelling would be more than the present rent of the displacement dwelling. As an alternative, the tenant may qualify for a down payment benefit designed to assist in the purchase of a replacement property and the payment of certain costs incidental to the purchase, subject to certain limitations noted under the *Down Payment* section below.

To receive any relocation benefits, the displaced person must buy or rent and occupy a “decent, safe and sanitary” replacement dwelling within one year from the date Caltrans takes legal possession of the property, or from the date the displacee vacates the displacement property, whichever is later.

Down Payment

The down payment option has been designed to aid owner-occupants of less than 90 days and tenants in legal occupancy prior to Caltrans' initiation of negotiations. The one-year eligibility period in which to purchase and occupy a "decent, safe and sanitary" replacement dwelling would apply.

Last Resort Housing

Federal regulations (49 CFR 24) contain the policy and procedure for implementing the Last Resort Housing Program on Federal-aid projects. Last Resort Housing benefits are, except for the amounts of payments and the methods in making them, the same as those benefits for standard residential relocation as explained above. Last Resort Housing has been designed primarily to cover situations where a displacee cannot be relocated because of lack of available comparable replacement housing, or when the anticipated replacement housing payments exceed the limits of the standard relocation procedure, because either the displacee lacks the financial ability or other valid circumstances. After the initiation of negotiations, Caltrans would within a reasonable length of time, personally contact the displacees to gather important information, including the following:

- Number of people to be displaced.
- Specific arrangements needed to accommodate any family member(s) with special needs.
- Financial ability to relocate into comparable replacement dwelling which would adequately house all members of the family.
- Preferences in area of relocation.
- Location of employment or school.

Nonresidential Relocation Assistance

The Nonresidential Relocation Assistance Program provides assistance to businesses, farms and nonprofit organizations in locating suitable replacement property, and reimbursement for certain costs involved in relocation. The Relocation Advisory Assistance Program would provide current lists of properties offered for sale or rent, suitable for a particular business's specific relocation needs. The types of payments available to eligible businesses, farms, and nonprofit organizations are: searching and moving expenses, and possibly reestablishment expenses; or a fixed in lieu payment instead of any moving, searching and reestablishment expenses. The payment types can be summarized as follows:

Moving Expenses

Moving expenses may include the following actual, reasonable costs:

- The moving of inventory, machinery, equipment and similar business-related property, including: dismantling, disconnecting, crating, packing, loading, insuring, transporting, unloading, unpacking, and reconnecting of personal property. Items acquired in the right-of- way contract may not be moved under the Relocation Assistance Program. If the displacee buys an Item Pertaining to the Realty back at salvage value, the cost to move that item is borne by the displacee.

- Loss of tangible personal property provides payment for actual, direct loss of personal property that the owner is permitted not to move.

- Expenses related to searching for a new business site, up to $2,500, for reasonable expenses actually incurred.

Reestablishment Expenses

Reestablishment expenses related to the operation of the business at the new location, up to $25,000 for reasonable expenses actually incurred.

B.1.4.3 Fixed In Lieu Payment

A fixed payment in lieu of moving, searching, and reestablishment payments may be available to businesses that meet certain eligibility requirements. This payment is an amount equal to half the average annual net earnings for the last two taxable years prior to the relocation and may not be less than $1,000 nor more than $40,000.

B.1.5 Additional Information

Reimbursement for moving costs and replacement housing payments are not considered income for the purpose of the Internal Revenue Code of 1954, or for the purpose of determining the extent of eligibility of a displacee for assistance under the Social Security Act, or any other law, ***except*** for any federal law providing local “Section 8” Housing Programs.

Any person, business, farm or nonprofit organization that has been refused a relocation payment by the Caltrans relocation advisor or believes that the payment(s) offered by the agency are inadequate may appeal for a special hearing of the complaint. No legal assistance is required.

Information about the appeal procedure is available from the relocation advisor.

California law allows for the payment for lost goodwould that arises from the displacement for a public project. A list of ineligible expenses can be obtained from Caltrans' Division of Right of Way and Land Surveys. California's law and the federal regulations covering relocation assistance provide that no payment shall be duplicated by other payments being made by the displacing agency.

More information regarding Caltrans' Division of Right of Way's Relocation Assistance Program can be found on the internet at

http://www.dot.ca.gov/hq/row/rap/index.htm.

Appendix C Avoidance, Minimization and/or Mitigation Summary

Avoidance, Minimization, and/or Mitigation Measures

There are no avoidance and/or minimization measures required for this project.

Mitigation

However, mitigation is required for Alternative 2 only. Alternative 1 does not require mitigation. The preferred alternative would be chosen between Draft and Final document.

ALTERNATIVE 2 ONLY

Any acquisitions and compensation to property owners would occur consistent with the Uniform Act, as amended. In accordance with this act, compensation is provided to eligible recipients for property acquisitions. Relocation assistance payments and counseling would be provided by the transportation agencies to persons and businesses in accordance with the act, as amended, to ensure adequate relocation and a decent, safe, and sanitary home for displaced residents. All eligible displacees would be entitled to moving expenses. All benefits and services would be provided equitably to all residential and business displacees without regard to race, color, religion, age, national origins, and disability, as specified under Title VI of the Civil Rights Act of 1964. All relocation activities would be conducted by the implementing agencies in accordance with the Uniform Act, as amended. Relocation resources would be available to all displacees without discrimination.

In addition, the Nonresidential Relocation Assistance Program (RAP) provides assistance to businesses, farms, and nonprofit organizations in locating suitable replacement properties and reimbursement for certain costs involved in relocation. The RAP would provide current lists of properties offered for sale or rent, suitable for a particular business’s specific relocation needs

Appendix D Notice of Preparation

To: Responsible/Trustee Agency

From: California Dept. of Transportation
703 B Street
Marysville, CA 95901

Subject: **Notice of Preparation of a Draft Environmental Impact Report**

Reference: California Code of Regulations, Title 14, (CEQA Guidelines) Sections 15082(a), 15103, 15375.

Project Title: SR 70 Binney Junction Roadway Rehabilitation and Complete Streets Project (EA: 03-0H160).

Project Location: The proposed project is located on State Route (SR) 70 in Yuba County, California between post miles (PM) 14.8/15.7 in the northern part of the City of Marysville.

Project Description: The California Department of Transportation proposes to widen the road to five lanes, which includes two through lanes in each direction and a two way left turn lane (TWLTL), install standard shoulders and sidewalks. These improvements will conform to three lanes at the recently constructed Simmerly Slough Bridge Project. The project will replace Marysville Underpass (UP) (Bridge No.16-18) and Binney Junction UP (Bridge No. 16-26) with new structures that meet vertical clearance standards as well as other highway standards.

This is to inform you that the California Department of Transportation will be the lead agency and will prepare an Environmental Impact Report (EIR) for the project described in the following pages. Your participation as a responsible agency is requested in the preparation and review of this document.

We need to know the views of your agency as to the scope and content of the environmental information that is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project.

A more detailed project description, location map, and the potential environmental effects are contained in the following materials.

A copy of the Draft Environmental Impact Report is not attached.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice.

Please direct your response to Maggie Ritter Telephone (530) 812-4759 at the address shown above or email: maggie.ritter@dot.ca.gov. Please supply us with the name for a contact person in your agency.

Date: _5/18/20_____

Signature: Julia Green

Title: Supervising Environmental Planner

Notice of Preparation

Project Title
State Route 70 Binney Junction Roadway Rehabilitation and Complete Streets Project (EA: 03-0H160)

Project Location
The proposed project is located on State Route (SR) 70 in Yuba County, California between post miles (PM) 14.8/15.7 in the northern of the City of Marysville, California.

Project Background

Overview of SR 70 in the Project Limits

State Route 70 is an Interregional Road System (IRRS) route. This route primarily serves to move people or goods from outside the immediate region through Yuba County. Transporting agricultural commodities to markets has made SR 70 a vital economic link to local farmers and agriculture-related businesses. Additionally, SR 70 has become a "gateway" route used to access multiple recreational destinations in the Sierra Nevada and serves as an alternative route to and from Nevada when Interstate 80 is closed due to an accident or weather conditions. This project would take place on the north entrance to the City Marysville SR 70, coming into the City. The project limits are from 14th Street to 0.2 miles south of Cemetery Road.

In addition, SR 70 is a primary north-south transportation corridor for the eastern Sacramento Valley that accommodates regional, interregional, recreational and commercial truck traffic, in addition to serving local traffic within Marysville. The route carries substantial recreational traffic through Yuba County and plays an important role in goods movements, particularly for transporting local agricultural products to market and to processing plants in the region. This route also serves as an emergency alternative route for Interstate 80.

Population growth over the past several decades in the urban areas adjacent to the highway has led to increases in vehicle traffic and congestion and a reduction in Level of Service (LOS).

The majority of SR 70 is a four-lane conventional highway; however, it is a two-lane conventional highway from 14th Street in Marysville to East Gridley Road in Butte County. The Simmerly Slough project will widen the roadway north of the project limits to a five-lane facility.

The following are projects within or near the project area:

- Simmerly Slough Bridge Replacement Project (EA 03-1E060): work began in summer of 2019 to construct a three-lane facility immediately north of the subject project. The Binney Junction project (03-0H160) will tie-in to the southern end of this project. Simmerly Slough is scheduled to finish construction in 2021.
- Butte Safety (Segment 3) Project (03-3H930): work will begin in 2022 to construct a five-lane facility that will tie-in to the north end of the Simmerly Slough project. This project is scheduled to finish construction in approximately 2025.
- According to the NR Data Library (GIS based), there are: 03-4F380, 0H420, 0J100, 0J350, 1G350, 1E060, 3E010, 0H160, 2F080, 3H300, 1J090, 1H780 and 2F080. Some are in

PID/Pre-PID, some are in PA&ED, and some are in construction.
http://svgcesridvweb.ct.dot.ca.gov/arcgis/apps/webappviewer/index.html?id=a050ffbb0d324017af02a3e7cf2f1a54

Project Description

There are three alternatives under consideration for this project: Alternative 1/1a, Alternative 2/2a, and the No-Build Alternative. The build alternatives have design variations: Alternative 1 and 2 include permanent realignment of the railroad lines over new structures; and Alternatives 1a and 2a include temporary realignment of the tracks on temporary structures during construction, followed by returning the tracks to new permanent structures on the current alignments.

Common Design Features of the Build Alternatives

Along SR 70 (B Street), in the City of Marysville, from 0.1 Miles south of 14th Street (PM 14.8) to just north of Cemetery Road (PM 15.7), the California Department of Transportation (Caltrans) proposes to widen the road to 5 lanes, which includes two through lanes in each direction and a two way left turn lane (TWLTL), standard shoulders and sidewalks. Caltrans proposes to replace Marysville Underpass (UP) and the Binney Junction UP with new structures that meet vertical clearance standards as well as other highway standards. The existing finger levee on the east side of SR 70 between the Binney Junction UP and Cemetery Road would be reconstructed further east to accommodate the additional roadway width. The existing pump station would be relocated to the south and an additional pump station would be installed at the Marysville UP to improve drainage. Caltrans also proposes to eliminate access to/from 17th Street and add signals at the intersections of SR 70 with East 24th Street and 16th Street.

Unique Features of the Build Alternatives

Alternative 1

Caltrans would replace and lengthen the Marysville UP to the north of existing and Binney Junction UP to the south of existing and lower the roadway profile to meet vertical clearance standards. The railroad lines would be permanently shifted to the newly constructed structure on the new alignment and the old UPs removed. To realign the tracks, Caltrans would acquire the Marysville Youth Center (MyCC) and the Yuba-Sutter Transit Center.

Alternative 1a

Caltrans would build temporary railroad structures directly adjacent to the existing structures, shift the railroad operations to the temporary tracks, demolish the existing railroad structures, build new railroad structures on the existing alignment and return railroad operations to the current alignment. The temporary railroad structures would be in use for approximately two years during construction of the permanent railroad structures. This alternative would also require acquisition of the Marysville Youth Center and the Yuba-Sutter Transit Center.

Alternative 2

Caltrans would replace and lengthen the Marysville UP to the south of existing and the Binney Junction UP to the south of existing and lower the roadway profile to meet vertical clearance standards. The railroad lines would be permanently shifted to the newly constructed railroad tracks on the new permanent alignment and the old UPs removed. To realign the tracks, Caltrans would acquire the Veteran's Memorial Center (American Legion Post, Veterans of Foreign Wars Post) and approximately 20 residences.

Alternative 2a

Caltrans would build temporary railroad structures directly adjacent to and south of the existing structures, shift the railroad operations to the temporary tracks, demolish the existing railroad structures, build new structures on the existing alignment and return railroad operations to the current alignment. The temporary railroad structures would be in use for approximately two years during construction of the permanent railroad structures. The new structures would be lengthened, and the roadway profile lowered to meet vertical clearance standards. This alternative would also require acquisition of the Veteran's Memorial Hall and 20 residences.

Probable Environmental Effects

The proposed project is expected to result in temporary and permanent environmental effects. The draft Environmental Impact Report/Environmental Assessment (EIR/EA) will disclose what resources would be affected, the level of significance, and feasible measures to reduce impacts. Probable environmental effects of the proposed project are outlined below.

Aesthetics

The proposed project could degrade the existing visual character or quality of the site and its surroundings; however, the impacts are not expected to be substantial.

During the preparation of the EIR/EA of the project, Caltrans will identify all feasible measures to avoid and minimize impacts to visual resources.

Agricultural and Forest Resources

No impacts anticipated.

Air Quality

The proposed project is expected to result in temporary short-term air quality impacts from construction activities; however, these impacts will be minimized with incorporation of minimization measures. During preparation of the EIR/EA, Caltrans will analyze project impacts to air quality, including criteria pollutants and operational air quality.

Biological Resources

The project will have no effect on any species identified as candidate, sensitive, or special status species in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife (CDFW) or the US Fish and Wildlife Service (USFWS).

The project will not have any effects on sensitive natural communities identified in local or regional plans, policies, and regulations or by the CDFW or USFWS.

The project will affect federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal and filling. There are approximately 0.523 acres of federally protected aquatic resources within the project limits. A delineation of the aquatic resources has been performed in accordance with US Army Corps of Engineers (USACE) guidance and the impacts of the proposed project will have to fill in this wetland in order to relocate the levee at the northern end of the project limits. Caltrans proposes to mitigate for the impacts to this potentially jurisdictional resource by purchasing in-lieu fee credits at a 2:1 ratio.

The project will not interfere with the movement of any native resident or migratory fish or wildlife species, nor will it interfere with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.

The project does not conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance.

The project does not conflict with any provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Cultural and Paleontological Resources

There is potential for cultural resources to be located within the project area. Analysis of the design will be conducted during preparation of the EIR/EA to determine the potential impacts to these resources, as well as potential avoidance, minimization, and/or mitigation measures.

Geology and Soils

No significant impacts anticipated.

Hazards/Hazardous Materials

There are hazardous materials located within the project area, such as Naturally Occurring Asbestos (NOA), Aerial Deposited Lead (ADL), property on the Cortese List site, thermoplastic paint striping, Treated Wood Waste (TWW) and assumed asbestos containing materials in existing structures. During preparation of the EIR/EA, further analysis will be conducted to determine potential avoidance, minimization, and/or mitigation impacts.

Hydrology and Water Quality

Due to the anticipated quantity of soil disturbance during construction, the project will be regulated under the Construction General Permit (CGP) issued by the State Water Resources Control Board. The CGP contains specific requirements meant to address potential erosion, sedimentation, and the transportation of potential pollutants to receiving waters. In accordance with the CGP, it is anticipated that field Best Management Practices (BMPs) will be implemented, monitored, and evaluated to the maximum extent practicable to reduce or prevent potential impacts to water bodies within the project limits.

Analysis will be conducted during preparation of the EIR/EA to evaluate water quality impacts or degradation to receiving waters to occur as a result of project activities.

Land Use/Planning

The proposed project would not conflict with any applicable land use plan, policy, or regulation of any agencies with jurisdiction over the project (including, but not limited to the general plan, specific plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

Mineral Resources

No impacts anticipated.

Noise

The proposed project could result in 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. Analysis will be conducted during preparation of the EIR/EA to evaluate the potential noise impacts.

Population/Housing

The proposed project could displace existing housing. During preparation of the EIR/EA, Caltrans will identify all feasible measures to avoid and minimize impacts to housing.

Greenhouse Gases

The project may contribute to CO2 emissions. During preparation of the EIR/EA, Caltrans will analyze impacts to CO_2 emissions.

Public Services

No significant impacts anticipated.

Recreation

No significant impacts anticipated.

Transportation/Traffic

The project is not anticipated to conflict with any applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, or conflict with an applicable congestion management program or conflict with adopted policies, plans or programs regarding public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Utilities/Service Systems

The proposed project could require the relocation of existing facilities, including, but not limited to gas, electric and fiber optic. Through the design of the project, Caltrans will identify feasible measures to avoid and minimize impacts to utilities and service systems.

Tribal Cultural Resources

No impacts anticipated.

Wildfire

No impacts anticipated.

Energy

The project may result in impacts to energy resources during project construction and/or operation. Analysis will be conducted during preparation of the EIR/EA to evaluate impacts to Energy.

Appendix E Special Status Species Lists

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To: 07/15/2024 18:55:52 UTC
Project Code: 2022-0071110
Project Name: 03-0H160 - YUB-70 PM 14.9/15.6

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through IPaC by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at: https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see Migratory Bird Permit | What We Do | U.S. Fish & Wildlife Service (fws.gov).

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

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

This species list is provided by:

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

PROJECT SUMMARY

Project Code: 2022-0071110
Project Name: 03-0H160 - YUB-70 PM 14.9/15.6
Project Type: Road/Hwy - Maintenance/Modification
Project Description: Marysville Railroad Bridge Rehab (SHOPP)
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@39.155035865662704,-121.58753951490301,14z



Counties: Yuba County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 10 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

BIRDS

NAME	STATUS
Yellow-billed Cuckoo *Coccyzus americanus* Population: Western U.S. DPS There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

REPTILES

NAME	STATUS
Giant Garter Snake *Thamnophis gigas* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4482	Threatened
Northwestern Pond Turtle *Actinemys marmorata* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1111	Proposed Threatened

AMPHIBIANS

NAME	STATUS
Western Spadefoot *Spea hammondii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5425	Proposed Threatened

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate
Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7850	Threatened

CRUSTACEANS

NAME	STATUS
Conservancy Fairy Shrimp *Branchinecta conservatio* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8246	Endangered
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp *Lepidurus packardi*	Endangered

NAME	STATUS

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/2246

FLOWERING PLANTS

NAME	STATUS
Hartweg's Golden Sunburst *Pseudobahia bahiifolia*	Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/1704

CRITICAL HABITATS

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

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Yuba City (3912125))

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		E
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	
Acipenser medirostris pop. 1 green sturgeon - southern DPS	G2T1 S1	Threatened None	AFS_VU-Vulnerable CDFW_SSC-Species of Special Concern IUCN_EN-Endangered	129 129	14 S:2	0	0	2	0	0	0	0	2	
Agelaius tricolor tricolored blackbird	G1G2 S2	None Threatened	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_EN-Endangered USFWS_BCC-Birds of Conservation Concern	60 90	960 S:6	0	0	0	0	2	4	4	2	
Astragalus tener var. ferrisiae Ferris' milk-vetch	G2T1 S1	None None	Rare Plant Rank - 1B.1		18 S:1	0	0	0	0	0	1	1	0	
Bombus pensylvanicus American bumble bee	G3G4 S2	None None	IUCN_VU-Vulnerable	60 60	500 S:1	0	0	0	0	0	1	1	0	
Buteo swainsoni Swainson's hawk	G5 S4	None Threatened	BLM_S-Sensitive IUCN_LC-Least Concern	50 70	2577 S:2	0	0	0	0	0	2	1	1	
Coccyzus americanus occidentalis western yellow-billed cuckoo	G5T2T3 S1	Threatened Endangered	BLM_S-Sensitive USFS_S-Sensitive	50 50	165 S:2	0	0	0	0	0	2	2	0	
Delphinium recurvatum recurved larkspur	G2? S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_SBBG-Santa Barbara Botanic Garden		119 S:1	0	0	0	0	1	0	1	0	
Desmocerus californicus dimorphus valley elderberry longhorn beetle	G3T3 S3	Threatened None		60 60	271 S:1	0	1	0	0	0	0	1	0	
Great Valley Cottonwood Riparian Forest Great Valley Cottonwood Riparian Forest	G2 S2.1	None None		50 50	56 S:2	0	0	2	0	0	0	2	0	
Great Valley Mixed Riparian Forest Great Valley Mixed Riparian Forest	G2 S2.2	None None		50 50	68 S:1	0	1	0	0	0	0	1	0	
Lepidurus packardi vernal pool tadpole shrimp	G3 S3	Endangered None	IUCN_EN-Endangered	75 75	336 S:1	0	1	0	0	0	0	0	1	

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Report Printed on Monday, July 15, 2024

Informa

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	E
Linderiella occidentalis California linderiella	G2G3 S2S3	None None	IUCN_NT-Near Threatened	75 75	508 S:1	0	1	0	0	0	0	0	1	
Melospiza melodia pop. 1 song sparrow ("Modesto" population)	G5T3?Q S3?	None None	CDFW_SSC-Species of Special Concern	60 60	92 S:1	0	0	0	0	0	1	1	0	
Monardella venosa veiny monardella	G1 S1	None None	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_UCBG-UC Botanical Garden at Berkeley	100 100	4 S:1	0	0	0	0	1	0	1	0	
Oncorhynchus mykiss irideus pop. 11 steelhead - Central Valley DPS	G5T2Q S2	Threatened None	AFS_TH-Threatened CDFW_SSC-Species of Special Concern		31 S:2	0	0	0	0	0	2	0	2	
Oncorhynchus tshawytscha pop. 11 chinook salmon - Central Valley spring-run ESU	G5T2Q S2	Threatened Threatened	AFS_TH-Threatened	120 120	13 S:1	0	0	0	0	0	1	0	1	
Pseudobahia bahiifolia Hartweg's golden sunburst	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden		27 S:1	0	0	0	0	1	0	1	0	
Riparia riparia bank swallow	G5 S3	None Threatened	BLM_S-Sensitive IUCN_LC-Least Concern	50 57	299 S:8	0	2	0	0	0	6	3	5	
Vireo bellii pusillus least Bell's vireo	G5T2 S3	Endangered Endangered		50 50	505 S:1	0	0	0	0	0	1	1	0	

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CALIFORNIA NATIVE PLANT SOCIETY

CNPS Rare Plant Inventory

Search Results

4 matches found. Click on scientific name for details

Search Criteria: Quad is one of [3912125]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK
Astragalus tener var. ferrisiae	Ferris' milk-vetch	Fabaceae	annual herb	Apr-May	None	None	G2T1	S1	1B.1
Delphinium recurvatum	recurved larkspur	Ranunculaceae	perennial herb	Mar-Jun	None	None	G2?	S2	1B.2
Monardella venosa	veiny monardella	Lamiaceae	annual herb	May-Jul	None	None	G1	S1	1B.1
Pseudobahia bahiifolia	Hartweg's golden sunburst	Asteraceae	annual herb	Mar-Apr	FE	CE	G1	S1	1B.1

Showing 1 to 4 of 4 entries

Suggested Citation:
California Native Plant Society, Rare Plant Program. 2024. Rare Plant Inventory (online edition, v9.5). Website https://www.rareplants.cnps.org [accessed 15 July 2024].

Appendix F FHWA Air Quality Conformity

F

Appendix G Required Consultation/Consultation Concurrence Documentation

State of California • Natural Resources Agency
DEPARTMENT OF PARKS AND RECREATION
OFFICE OF HISTORIC PRESERVATION
Julianne Polanco, State Historic Preservation Officer
1725 23rd Street, Suite 100, Sacramento, CA 95816-7100
Telephone: (916) 445-7000 FAX: (916) 445-7053
calshpo.ohp@parks.ca.gov www.ohp.parks.ca.gov

Gavin Newsom, *Governor*
Armando Quintero, *Director*

March 5, 2024

VIA EMAIL

FHWA_2020_0730_001

Ms. Lisa Bright, Branch Chief
Department of Transportation
District 3
703 B Street
Marysville, CA 95901

Subject: Second Revised Area of Potential Effects for the Binney Junction Roadway Rehabilitation Project Programmatic Agreement in Yuba County, California.

Dear Ms. Bright:

The State Historic Preservation Officer (SHPO) is in receipt of a February 29, 2024 letter from the California Department of Transportation (Caltrans), District 3 for the above referenced undertaking. Caltrans, District 3 has revised the area of potential effects (APE) for this undertaking and is seeking SHPO review and comment on this revision pursuant to Stipulation I.B of the *Programmatic Agreement between the California Department of Transportation and the California State Historic Preservation Officer regarding the State Route 70 Binney Junction Roadway Rehabilitation and Complete Streets Project, Yuba County, California* (PA) for this undertaking.

District 3 has further revised the APE since their February 8, 2024 consultation on the APE revision. The APE requires expansion because of additional changes in the project's scope necessitating a larger project footprint. The additional area which the modified scope includes is reflected in the revised APE Map enclosed with Caltrans' February 29th letter. The additional scope encompasses an aerial line adjacent to the Marysville City Cemetery (P-58-002534). Due to the proximity of the aerial work to site P-58-002534, the site has been added to the APE and will be avoided in its entirety using an Environmentally Sensitive Area (ESA) Action Plan pursuant to Stipulation VIII.C.3 of the Caltrans Section 106 Program-level Programmatic Agreement.

The SHPO finds the revised APE Map to be adequate. Please note that the additional scope of work may necessitate revisions to Attachment A, Project Description, in addition to changes to Attachment B, Project Maps of the PA.

As indicated in Caltrans' letter, following consultation on the revised APE, Caltrans will submit to the SHPO a Supplemental Historic Property Survey Report, Archaeological Survey Report, ESA Action Plan, and Finding of Effect for review and comment pursuant to Stipulation I.B of the PA.

Please continue to keep SHPO informed of any consulting party comments received on the Supplemental APE Map. For questions or concerns, please contact Associate State Archaeologist Alicia Perez at Alicia.Perez@parks.ca.gov.

Sincerely,

Julianne Polanco
State Historic Preservation Officer

State of California • Natural Resources Agency
Gavin Newsom, *Governor*

DEPARTMENT OF PARKS AND RECREATION
OFFICE OF HISTORIC PRESERVATION
Armando Quintero, *Director*

Julianne Polanco, State Historic Preservation Officer
1725 23rd Street, Suite 100, Sacramento, CA 95816-7100
Telephone: (916) 445-7000 FAX: (916) 445-7053
calshpo.ohp@parks.ca.gov www.ohp.parks.ca.gov

May 2, 2024

VIA EMAIL

FHWA_2020_0730_001

Ms. Julia Prince-Buitenhuys
Acting Section 106 Coordinator
California Department of Transportation
Cultural Studies Office
Division of Environmental Analysis
P.O. BOX 942873, MS–27
Sacramento, CA 94273–0001

Subject: Programmatic Agreement Attachment Revisions and Supplemental Documentation for the Binney Junction Roadway Rehabilitation Project Programmatic Agreement in Yuba County, California.

Dear Ms. Prince-Buitenhuys:

The State Historic Preservation Officer (SHPO) is in receipt of an April 8, 2024 letter from the California Department of Transportation (Caltrans) for the above referenced undertaking. Caltrans is concurrently consulting under the *Programmatic Agreement between the California Department of Transportation and the California State Historic Preservation Officer regarding the State Route 70 Binney Junction Roadway Rehabilitation and Complete Streets Project, Yuba County, California* (Project PA) for this undertaking and the January 2014 *First Amended Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, and California State Historic Preservation Officer and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act as it pertains to the Administration of the Federal-Aid Highway Program in California* (Section 106 PA).

Caltrans is continuing consultation with the SHPO on revisions the agency made to the undertaking's area of potential effects (APE) pursuant to Stipulation I.B of the Project PA. The original APE was revised to include changes in the project's scope. On March 5, 2024, the SHPO agreed with Caltrans' revised APE maps and further responded that the additional scope of work may necessitate revisions to the Project PA's Attachment A, Project Description, and the Attachment B, Project Maps. In response to SHPO comments, Caltrans has enclosed the following with their letter:

1. Supplemental Historic Properties Survey Report (sHPSR) for the Binney Junction Roadway Rehabilitation Project with attachments, including a supplemental Finding of Effect (sFOE).
2. Revised Attachments A (Project Description) and B (Maps) of the Project PA.

The sFOE explains that while the APE has been revised, the undertaking will still have no adverse effect on the following built environment historic properties in the APE:

- The Southern Pacific (now Union Pacific) Railroad Marysville to Chico Line (P-58-001354)
- The Western Pacific (now Union Pacific) Railroad Marysville to Oroville Line (P-58-001372)
- The Southern Pacific Railroad Marysville to Oroville Line (P-58-001284)
- The Marysville Ring Levee (P-58-002579).

Following a review of the sFOE, I agree that the undertaking will not result in adverse effects to the above listed built environment historic properties in the APE.

The Marysville Old City Cemetery (P-58-002534) was incorporated into the revised APE. For the purposes of this undertaking only, P-58-002534 will be assumed eligible and will not be affected by the undertaking because it will be protected in its entirety with an Environmental Sensitive Area (ESA) in accordance with Stipulation VIII.C.3 of the Section 106 PA. The ESA Action Plan is included in the sHPSR and discusses the measures added to avoid adverse effects to the property.

Caltrans finds that the phased identification and evaluation process as originally agreed to and as stipulated under the Project PA remains applicable for this undertaking. The SHPO agrees with this finding. The SHPO also agrees with the revisions made to Attachments A and B, and requests that Caltrans incorporate the revised APE and all supporting documentation for this consultation (sHPSR, sFOE, ESA Action Plan and revised Attachments A and B) into Attachment B of the PA in accordance with Stipulation I.B of the PA.

For questions or concerns, please contact Associate State Archaeologist Alicia Perez at Alicia.Perez@parks.ca.gov.

Sincerely,

Julianne Polanco
State Historic Preservation Officer

State of California • Natural Resources Agency
Gavin Newsom, Governor
DEPARTMENT OF PARKS AND RECREATION
Armando Quintero, Director
OFFICE OF HISTORIC PRESERVATION
Julianne Polanco, State Historic Preservation Officer
1725 23rd Street, Suite 100, Sacramento, CA 95816-7100
Telephone: (916) 445-7000 FAX: (916) 445-7053
calshpo.ohp@parks.ca.gov www.ohp.parks.ca.gov

May 14, 2024

VIA EMAIL

FHWA_2020_0730_001

Ms. Julia Prince-Buitenhuys
Acting Section 106 Coordinator
California Department of Transportation
Cultural Studies Office
Division of Environmental Analysis
P.O. BOX 942873, MS–27
Sacramento, CA 94273–0001

Subject: Final Attachment B to the Programmatic Agreement for the Binney Junction Roadway Rehabilitation Project in Yuba County, California.

Dear Ms. Prince-Buitenhuys:

The State Historic Preservation Officer (SHPO) is in receipt of a May 13, 2024 letter from the California Department of Transportation (Caltrans) for the above referenced undertaking. Caltrans is continuing consultation under the *Programmatic Agreement between the California Department of Transportation and the California State Historic Preservation Officer regarding the State Route 70 Binney Junction Roadway Rehabilitation and Complete Streets Project, Yuba County, California* (Project PA) for this undertaking. Enclosed with Caltrans' letter is the final revised Attachment B to the PA.

This letter acknowledges receipt of the final Attachment B. Attachment B has been revised to incorporate all supporting documents associated with this consultation which include the revised area of potential effects (APE), Supplemental Historic Properties Survey Report, Supplemental Finding of Effect, Environmentally Sensitive Area Action Plan and revised Attachments A and B of the PA in accordance with Stipulation I.B of the PA.

For questions or concerns, please contact Associate State Archaeologist Alicia Perez at Alicia.Perez@parks.ca.gov.

Sincerely,

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State Historic Preservation Officer

Appendix H Traffic Management Plan

Transportation Management Plan (TMP)

As traffic demand on state routes has increased, a major emphasis of Caltrans has not only been the safety of the traveling public and workers, but also that the planned work does not result in extensive delays to the public. Caltrans develops traffic handling plans to show the contractor Caltrans' strategies to move motorists through the work zone quickly and safely. These plans are an important part of the TMP strategy, but the following elements are vital to helping the motorist and contractor during the construction of the project; public awareness campaigns, motorist information, incident management, construction methods, demand management, alternate route planning, lane closure charts, and Standard Special Provisions (SSPs) for maintaining traffic.

The *public awareness campaign* will consist of

- Brochures and mailers will be available to residents/motorist at the Caltrans District Office, local businesses, and through direct mailings to affected businesses and residents in the project area.
- Press Releases and Media Alerts will be used to provide timely project-related information to the news media, affected businesses and parties using print and/or electronic media. These groups will include the local paper, schools, major employers and businesses in the area, emergency services (fire, law enforcement, and ambulance), and social media using services like X (formerly Twitter) to display media alerts. Various mechanisms including ~~fax~~, e-mail, telephone message, and mailings can be used to communicate information relating to start dates, work schedules, significant traffic pattern changes, traffic collisions, and incidents within the work zone.
- The District 3 Public Information Office will have displays, maps, brochures and videos describing the project, potential traffic impacts, and available travel alternatives to minimize those impacts, including links to available transit routes and transit agency contact information.
- A Project Web Site that provides information for the specific work zone including long-term static information on project plans and progress, as well as real-time interactive information.
- Public Meetings that will be held prior to the start of construction for the project team and the public relations staff to present project information to the community and businesses to solicit input such as potential concerns, impacts, and management strategies.
- Concerned stakeholders can identify themselves and be sent targeted information during construction staging on a regular basis through e-mail or social media.
- With the heavy freight traffic on State Route (SR) 70, coordination with the freight community (trucking companies and truck drivers) to disseminate useful work zone information (e.g., truck restrictions, locations of traffic incidents, planned closures, and detours) and development of a mechanism to provide that information to freight stakeholders at central locations, or to truckers as

they approach the work zone will be important.

Motorist Information.

Motorist information is vital to travelers approaching a work zone and who still have time to make a decision that could divert them away from possible congestion. With available information on travel delays or alternative routes prior to a decision point, motorists can play an active role in completing their trips more smoothly and help reduce the overall congestion.

- Traffic-related information will be disseminated via regularly scheduled traffic reports on social media, the project website and shared with local news outlets. These reports will be scheduled during morning and evening peak hour commute periods.
- There are Changeable Message Signs (CMS) located on state routes approaching the project. These permanent overhead message signs will be used to notify motorists of lane and road closures, work activities, traffic incidents, potential work zone hazards, traffic queues (backups), travel times, or delay information, as well as alternate routes in or around the work zone.
- Portable Changeable Message Signs (PCMS) will be placed at key locations to notify motorists of lane closures, alternate routes, expected delays, and upcoming road closures. These signs will be used to inform drivers of speed limit reductions and enforcement activities in the work zone. The appropriate sign placement is included in the project plans (see attached Motorist Information Plans (MIP) sheets).
- Portable Radar Systems will be mounted on trailers to measure the speed of approaching vehicles, which will be displayed on a dynamic speed message sign along with the work zone speed limit. The objective of this system is to enhance safety by encouraging speed limit compliance and limiting the range of speeds among vehicles.
- Traveler information is real-time traffic and travel conditions on the State Highway System (SHS) that affect the traveling public. Accurate and available real-time traveler information regarding congestion, chain controls, incidents, construction, and road closures allows travelers to make informed transportation choices. Caltrans provides/makes traveler information available through the following tools: QuickMap, the Interactive Voice Response System (IVR) or the Caltrans Highway Information Network (CHIN), the California Highway Information web page, and the Commercial Wholesale Web Portal (CWWP). California's regional Metropolitan Planning Organizations (MPOs) own and manage eight operational 511 services.

Incident Management

- When traffic incidents occur in or near the work zone, the most effective tool in reducing potential congestion is to remove the elements of the incident from the roadway as quickly as possible. It will be a requirement of the contractor as part of the construction contract to coordinate with local tow companies to arrange for priority response to the work zone for any incidents.
- Caltrans contracts with the California Highway Patrol (CHP) to provide enhanced enforcement services through the Construction Zone Enhanced

Enforcement Program (COZEEP). The visibility of CHP presence alerts motorists that road work is being performed on the roadway and that motorist behavior is under surveillance. The officers are directed by the onsite field supervisor to patrol the work zone area or to remain stationary.

Lane Closure Charts (LCC)

- Lane closure charts identify the number of lanes that must be open for traffic each hour of the day to minimize delay when work activities are being conducted. These charts restrict work hours so that traffic is not affected during periods of peak travel demand and congestion (e.g., peak hours, holidays, or special events). Work is typically performed during off-peak periods, such as at night, to minimize work zone impacts to motorists and adjacent businesses.

Construction Methods

- The Stage Construction Plans show a sequence of construction activities. The contract plans identify portions of the project to be completed in a specific sequence to minimize impacts to the traveling public.
- Traffic handling plans contain sufficient alignment detail, profiles, and typical cross-sections to guide traffic through the work zone in the sequence shown in the Stage Construction Plans.
- For construction work on SR 70, it is essential to maintain the existing number of highway lanes to the extent possible. This is done through lane modifications, in this case reducing lane widths to 11 feet for portions of the work which will be in place for extended periods. Every effort has been taken to limit the time a lane or shoulder is reduced in width.
- This portion of SR 70 is a two-lane highway. When the LCC allows, one-way reversing traffic control, which involves alternately stopping traffic in one direction and allowing work activities to occur in the lane that is closed, will be used during certain operations. For example,
    - Placing temporary Barrier and End Treatments for Staging Purposes.
    - Lowering the road before placing girders on the new bridge structures.
    - Placing girders on the new structure.
    - Final paving operations.
- The project will reduce the speed limit through the entire work zone to improve traffic and worker safety. To alert motorist of their speed the project will also use speed radar trailers (dynamic speed message signs).
- To discourage gawking in proximity of the structures traffic screens will be used in conjunction with Temporary Barrier System (TBS) to help prevent driver distractions in work zones by blocking the motorist's view of the activities. This strategy helps to keep traffic moving and enhance safety.

Demand Management

- Shuttle buses will be provided during certain stages of construction for pedestrians and bicyclists through the work zone, where they have existing access, if the contractor cannot provide alternate access through the work zone.

Alternate Route Planning

- With the high truck volumes on SR 70, truck drivers will be encouraged to use alternate routes throughout the duration of the project's construction. This will increase passenger vehicle capacity through the work zone.
- Temporary traffic signals will be coordinated with existing signals to maintain traffic flow through and near the work zone.
- Existing bus stop areas within the work zone will be maintained or moved to locations coordinated with Yuba Sutter Transit.
- During certain stages of construction certain left turn movements will be eliminated at intersections to increase roadway capacity, reduce potential congestion and delays, and improve safety.

Standard Special Provisions (SSPs) for maintaining traffic.

Caltrans can enforce contractor compliance with closure pickup deadlines in two ways:

- A "maintaining traffic" standard special provision allows assessing the contractor a contract payment deduction for the value of a traffic delay when the contractor exceeds the closure window. The special provisions specify the minimum penalty of $1,000 for each 10 minutes and can exceed the minimum depending on the duration of the delay, traffic volumes, and the highway facility. The DTM calculates the delay penalty during the design phase of the project.

- The Caltrans representative can suspend the contract work.

Caltrans can order a contractor to pick up a closure early if traffic delays become significant due to a project incident or activities outside the project area. Caltrans should order early pickup when traveler and worker safety would be compromised. The "maintaining traffic" special provisions for capital projects provide for compensating contractors for early pickup. Encroachment permit provisions require the permittee to pick up a closure early without compensation.