Oakdale-Waterford Highway Over Claribel Lateral Bridge Replacement Project

Initial Study/Negative Declaration

Prepared for:

Stanislaus County Department of Public Works
1716 Morgan Road
Modesto, CA 95358

Prepared by:

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DRAFT: April 2023

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A-2-40	General Agriculture with 40-acre minimum lot size
AASHTO	Association of State Highway and Transportation Officials
AB	Assembly Bill
af	acre-feet
AG	Agricultural land use
APE	Area of Potential Effects
APN	Assessor's Parcel Number
AQMP	Air Quality Management Plan
ARB	Air Resources Board
BIOS	Biogeographic Information and Observation System
BMP	Best Management Practices
BSA	Biological Study Area
BSC	Building Standards Commission
CAAQS	California Ambient Air Quality Standards
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CDOC	California Department of Conservation
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CNDDB	California Natural Diversity Database
CO	Carbon monoxide
CO_2	Carbon dioxide
Cortese	Hazardous Waste and Substances Sites
County	County of Stanislaus
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CWA	Clean Water Act
dBA	A-weighted Decibels
DPM	Diesel particulate matter
DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Environmentally Sensitive Area
FCAA	Federal Clean Air Act
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FMMP	Farmland Mapping and Monitoring Program

GHG	Greenhouse Gas
HCP	Habitat Conservation Plan
HP	Habitat Present
HSC	Health and Safety Code
HWCL	Hazardous Waste Control Law
I-5	Interstate 5
IND	Industrial
IS/NMD	Initial Study/ Mitigated Negative Declaration
LCFS	Low Carbon Fuel Standard
L_{eq}	Equivalent continuous sound level
L_{max}	Maximum sound level
LUST	Leaking Underground Storage Tank
MBTA	Migratory Bird Treaty Act
MLD	Most Likely Descendant
MND	Mitigated Negative Declaration
MPO	Metropolitan Planning Organization
MRZ	Mineral Resource Zone
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NESMI	Natural Environment Study Minimal Impacts
NMFS	National Marine Fisheries Service
NO_2	Nitrogen Dioxide
NO_X	Nitrogen Oxide
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Services
NRHP	National Register of Historic Places
O_3	Ozone
OHWM	Ordinary High-Water Mark
OID	Oakdale Irrigation District
Pb	Lead
PM_{10}	Particulate matter 10 microns or less in diameter
$PM_{2.5}$	Particulate matter 2.5 microns or less in diameter
ppm	Parts per Million
ppv	peak particle velocity
PRC	Public Resources Code
RACT	Reasonably Available Control Technology
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Conditions
ROW	Right-of-Way
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCS	Sustainable Communities Strategy
SIP	State Implementation Plan
SJVAB	San Joaquin Valley Air Basin

SJVAPCD	San Joaquin Valley Air Pollution Control District
SMARA	Surface Mining and Reclamation Act
SO_2	Sulfur dioxide
SO_x	Oxides of sulfur
SSC	State Species of Special Concern
SWRCB	State Water Resources Control Board
TCE	Temporary Construction Easement
TCR	Tribal Cultural Resource
U.S.	United States
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
UST	Underground Storage Tank
VDE	Visual dust emissions
VOC	Volatile organic compounds

1.0 Project Description

Project Title	Oakdale-Waterford Highway Over Claribel Lateral Bridge Replacement Project
Lead Agency Name and Address	Stanislaus County 1716 Morgan Road Modesto, CA 95358
Contact Person and Phone Number	Chuck Covolo, Project Manager Stanislaus County Department of Public Works (209) 353-5938
Project Location	Between Albers Road and Claribel Road
Project Sponsor's Name and Address	Stanislaus County Department of Public Works 1716 Morgan Road Modesto, CA 95358
General Plan Designation(s)	Agriculture (AG) and Industrial (IND)
Zoning Designation(s)	General Agriculture 40 Acre (A-2-40)

1.1 Introduction

The County of Stanislaus (County) proposes to replace the Oakdale-Waterford Highway (Bridge 38C0078) over Claribel Lateral, located approximately three miles southeast of the City of Oakdale between Albers Road and Claribel Road (project) (see **Figure 1**, Regional Location and **Figure 2**, Project Location). Permanent right-of-way (ROW) acquisitions and temporary construction easements (TCE) would be necessary to complete the project.

The project is listed in the Stanislaus Council of Governments' 2019 Federal Transportation Improvement Program as a bridge replacement. The County is planning to use federal funds through the Highway Bridge Program for the project. The California Department of Transportation (Caltrans) is the lead agency pursuant to the National Environmental Policy Act (NEPA) and the County is the lead agency pursuant to the California Environmental Quality Act (CEQA).

1.2 Project Purpose and Need

The purpose of the project is to improve safety and reduce the risk of bridge failure by replacing a scour critical bridge with a new bridge that would meet current Caltrans design standards. The project is needed because the Oakdale-Waterford Highway Bridge was given a sufficiency rating of 63.1 and is considered scour critical due to full exposure of the footings at Pier 2.

1.3 Project Description

Existing Bridge

The existing bridge structure is a continuous reinforced 2-span slab on a reinforced concrete pier with reinforced concrete wing abutments on shallow concrete footings that is approximately 22 feet long. The bridge is approximately 40 feet wide and accommodates two lanes of traffic. The average daily traffic on Oakdale-Waterford Highway is 4,100 vehicles, with approximately four percent consisting of truck traffic. The bridge was constructed in 1920 and widened in 1963; according to the Caltrans Historical Significance listing of Local Agency Bridges (March 2019), the bridge is not eligible for listing on the National Register of Historic Places (NRHP) (Category 5).

The project area is located in a rural area directly adjacent to land use classified as agriculture and industrial (see **Figure 3**, Land Use Map). Land surrounding the channel consists of agricultural crops; there are orchard trees in all four quadrants adjacent to the bridge, with the closest trees located approximately 40 feet from the north end of the bridge. According to the California Department of Conservation (CDOC), there are farmlands designated as Unique and Prime Farmland directly adjacent to the bridge. Claribel Lateral is an earthen bottom irrigation canal with grasses and weedy vegetation growing along the dirt banks around the channel. An earthen bottom irrigation canal is a manmade feature with an earthen bottom and is used to convey water to the surrounding agricultural fields for irrigation use. Flow within the channel appears to be intermittent and is controlled artificially to meet the needs of nearby agricultural properties. There are dirt access roads on both sides of the channel northeast and southwest of the bridge. The shoulders of the road and access roads are largely unvegetated with small amounts of ruderal vegetation.

Proposed Improvements

The project would include replacement of the existing structurally deficient bridge with a double box culvert alternative. The project would include demolition of the existing bridge and construction of a new concrete bridge along the same alignment. The new bridge would be approximately 25 feet long and between 36 and 40 feet wide.

The profile of the road would be raised slightly over the existing profile meet American Association of State Highway and Transportation Officials (AASHTO) design standards and conform to the horizontal curvature of the road. Crash-tested concrete or steel post barriers with a maximum width of two feet would be added to each side of the bridge, with end-treatment crash cushions at each corner.

For the bridge replacement, the Oakdale Irrigation District (OID) access roads that parallel the canal would be slightly realigned to accommodate the crash cushions added to each end of the bridge. Modifications to existing drainage patterns are not anticipated. Construction activities in the canal would include removal of the existing center pier. Excavation to a maximum depth of 2.5 feet is anticipated for constructing the bottom invert slab of the box culvert.

Detour Route

Construction of the project is anticipated to last between nine and 12 months. For the duration of construction, the bridge would be closed, and traffic would be detoured around the project area using existing roads (see **Figure 4**, Detour Map). Vehicles traveling south on Oakdale-Waterford Highway would likely be diverted to travel south on Albers Road and east on Claribel Road for a detour of approximately

three miles. Vehicles traveling north on Oakdale-Waterford Highway would travel the same route in reverse. No improvements are proposed along the detour routes. Temporary signage would be placed along the route to provide wayfinding for vehicles.

Right of Way

It is anticipated that some permanent ROW acquisition and TCEs would be required on the following parcels: Assessor's Parcel Numbers (APN) 064-032-070, 064-032-069, 064-032-073, and 064-032-047. Potential construction staging areas include the shoulder along Oakdale-Waterford Highway, canal access road, and vacant land on APN 064-032-070. The precise acreage of ROW and TCEs necessary is currently unknown. The project would not require any relocations or displacements of residents or businesses.

Utilities

Utility relocations may be required, pending investigation of the location of existing underground and overhead utilities. All utility relocations would be conducted in coordination with the service providers. Tree removal may be required to accommodate the realigned canal access roads.

Anticipated Construction Schedule and Methods

Construction of the project is anticipated to begin in the fall of 2025 and last between nine and 12 months. Construction methods would include the following:

- Installing construction area signs – Prior to construction, appropriate signage would be installed, identifying construction areas, closed road, and detour routes. Detailed signage plans would be reviewed and approved by the County. Residents, businesses, and other stakeholders would be informed of the project developments and impacts to traffic operations during construction. Signs would remain in place throughout the duration of construction.
- Staging Areas – The contractor would mobilize equipment and materials in the designated staging areas located along both sides of the road. Staging areas would be returned to pre-project condition at the conclusion of construction activities.
- Clearing, Grubbing, and Tree Removal – Clearing and grubbing of vegetation and removal of any trees would be completed.
- Demolition – Best management practices (BMPs) would be implemented during construction. Demolition of the existing Oakdale-Waterford Highway Bridge and portions of roadway would be performed in accordance with Stanislaus County standards supplemented by Caltrans Specifications modified to meet environmental permit requirements. All concrete and other debris resulting from the demolition would be removed from the project site and properly disposed of by the contractor.
- Stream Diversion – The canal is expected to be dry during the months between November and February. There may be a small amount of nuisance flow during these months. The canal has controlled flows, which means control valves are adjusted either mechanically or manually to restrict or release water flows for irrigation. Because the flow is heavily regulated by multiple control points both upstream and downstream of the BSA, the canal is not expected to be substantially influenced by natural storm events. The contractor would work with OID to have the nuisance flow diverted prior to construction.
- New Bridge Foundations – The new structure foundation would consist of a solid reinforced concrete bottom slab, founded on approximately 18-inches of compacted aggregate base material. Material in the bottom of the canal would be over-excavated and then an 18-inch layer of aggregate

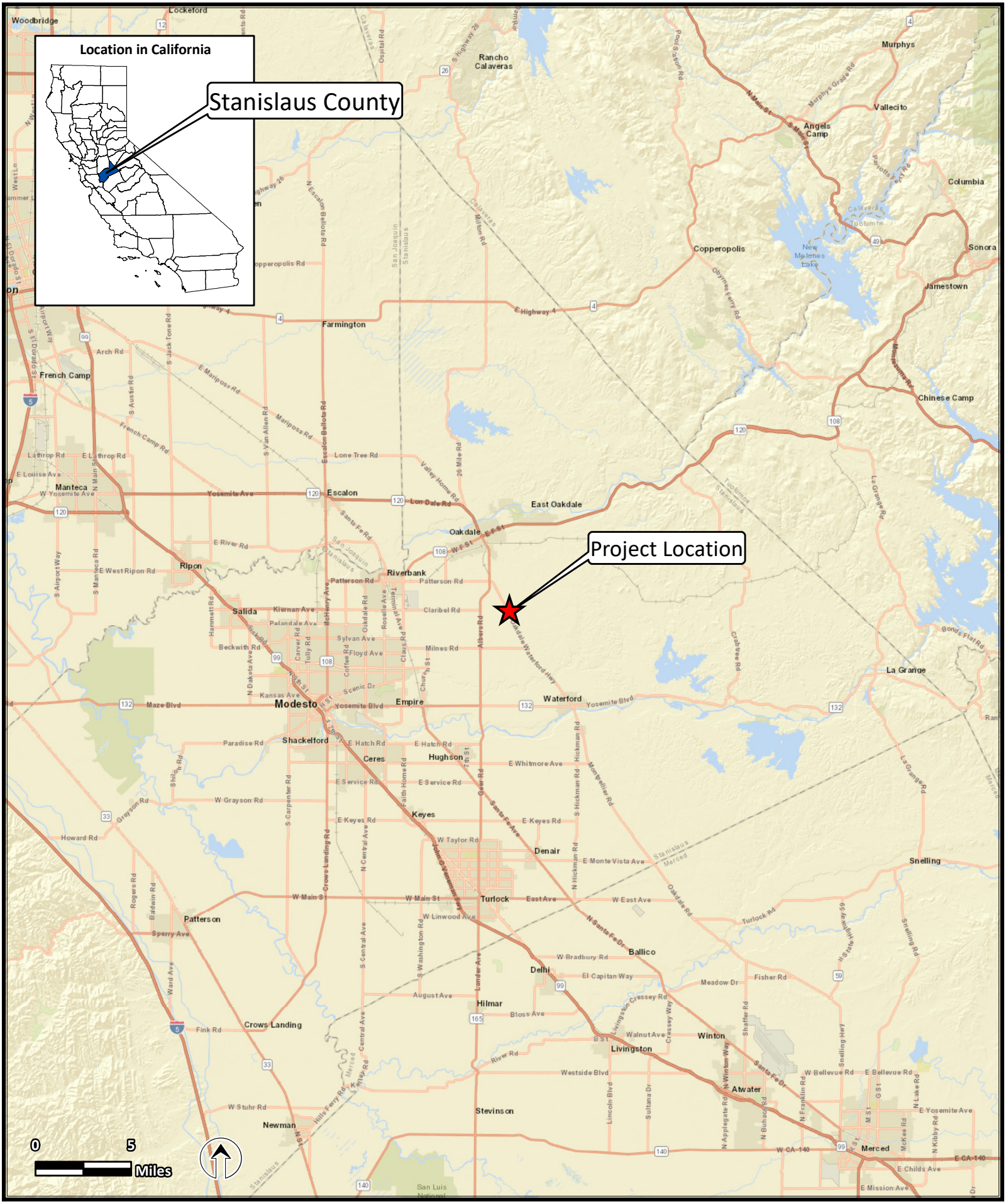
base would be placed and compacted. Rebar would then be placed and forms constructed; the bottom slab would be poured with concrete and the forms stripped after the concrete has been cured.

- New Bridge Construction – The structure would be a cast-in-place reinforced concrete box culvert. After completion of the bottom slab, the vertical end walls would be formed and rebar placed, and the concrete would be poured for the end walls. Falsework would be placed on the bottom slab to support the forms for the roof slab. Rebar would be placed within the forms and the roof slab would be poured and cured. Once the deck is poured and cured, backfill would be placed behind the end walls and approaches built up with roadway base materials. The barriers would be installed and barrier end-treatments would be installed at each corner of the bridge, and the roadway would be prepared for final surfacing and striping.

Permits and Approvals Needed

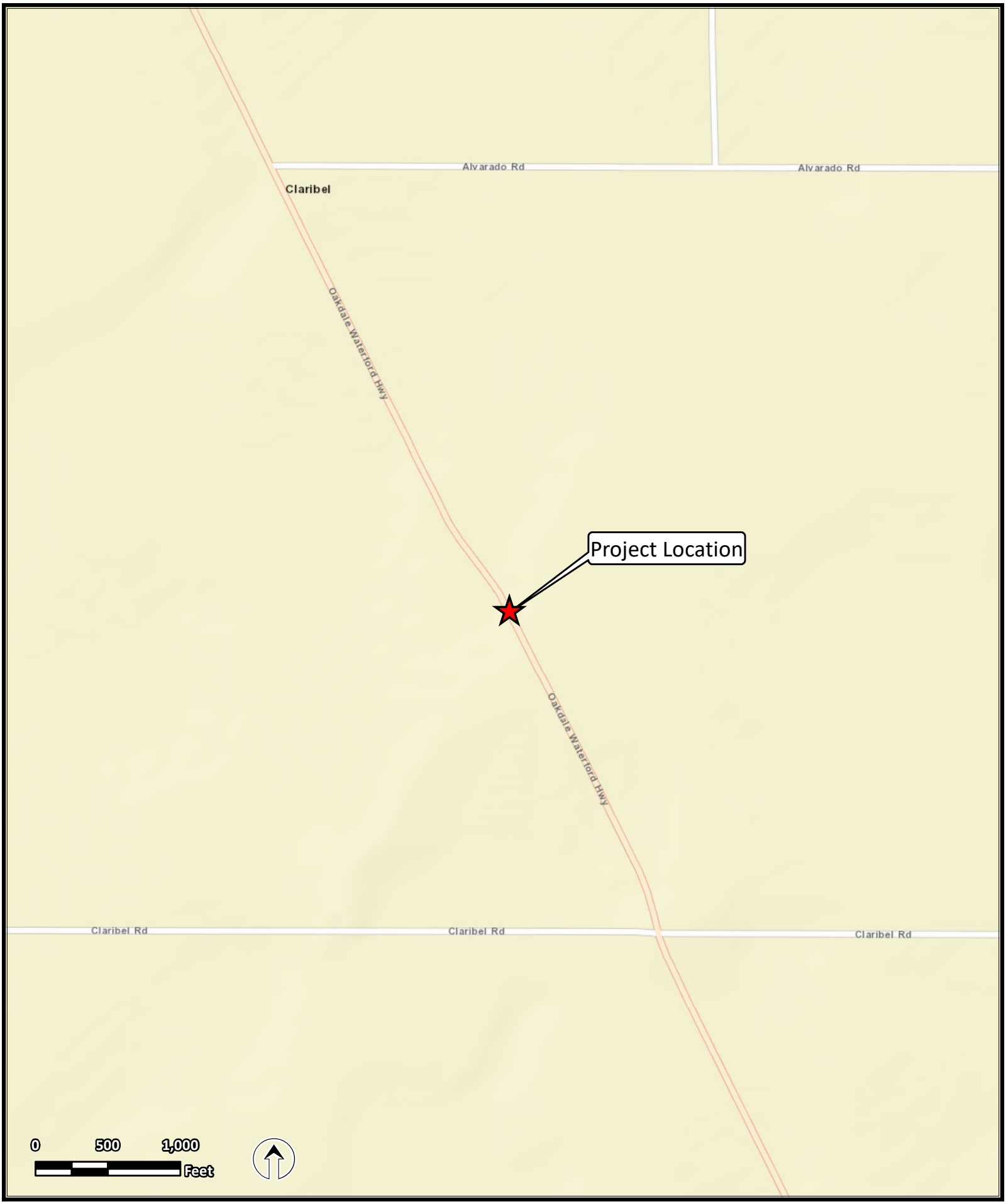
The following permits, reviews, and approvals are anticipated for project construction:

- Waste Discharge Requirement from Regional Water Quality Control Board (RWQCB)
- Section 1602 Streambed Alteration Agreement from California Department of Fish and Wildlife (CDFW)



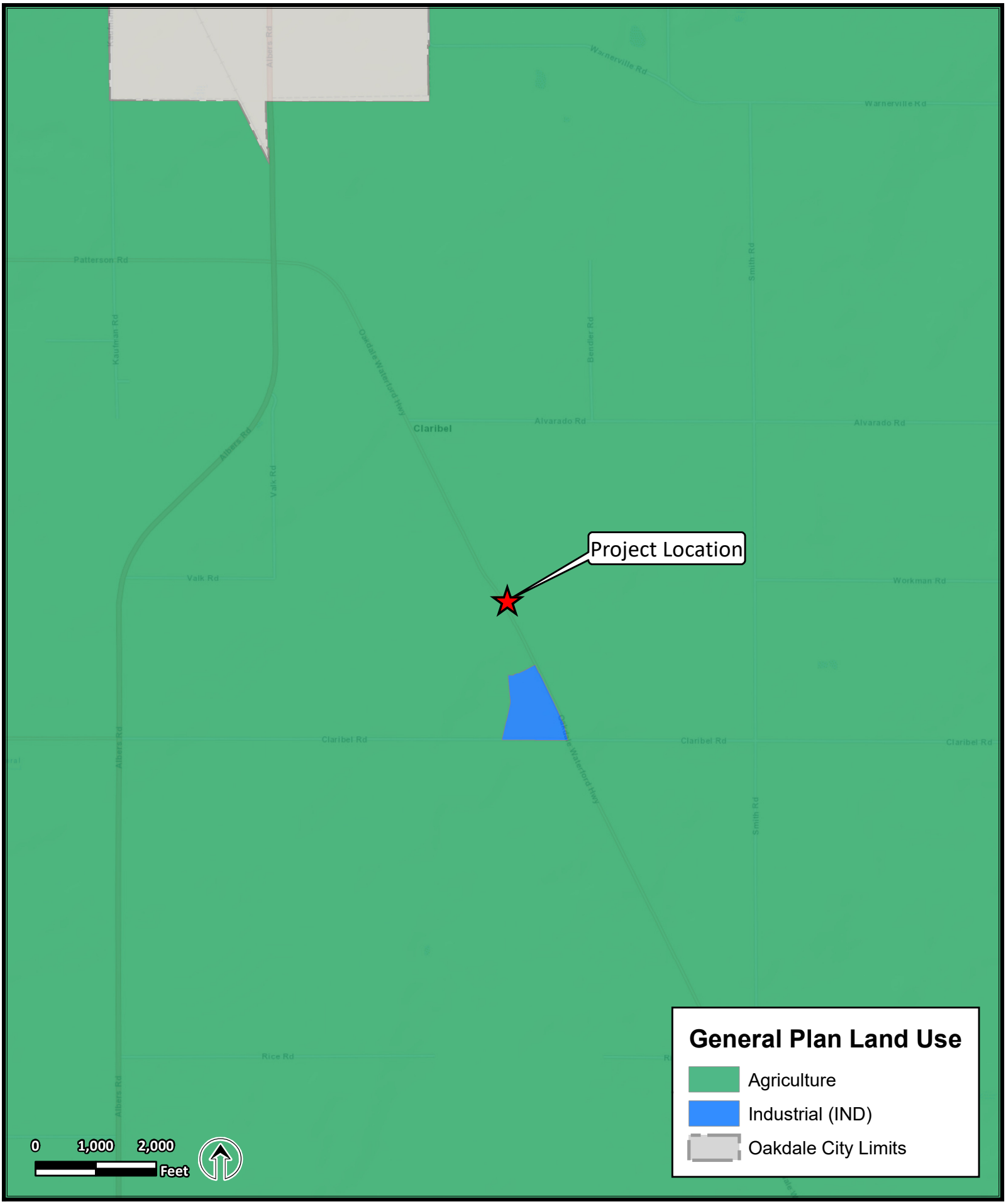
Sources: ESRI 2020.

FIGURE 1. REGIONAL LOCATION
Oakdale-Waterford Highway over Claribel Lateral
Bridge Replacement Project



Sources: ESRI 2020.

FIGURE 2. PROJECT LOCATION
Oakdale-Waterford Highway over Claribel Lateral
Bridge Replacement Project



Sources: Stanislaus County 2020; ESRI 2020.

FIGURE 3. LAND USE
Oakdale-Waterford Highway over Claribel Lateral
Bridge Replacement Project

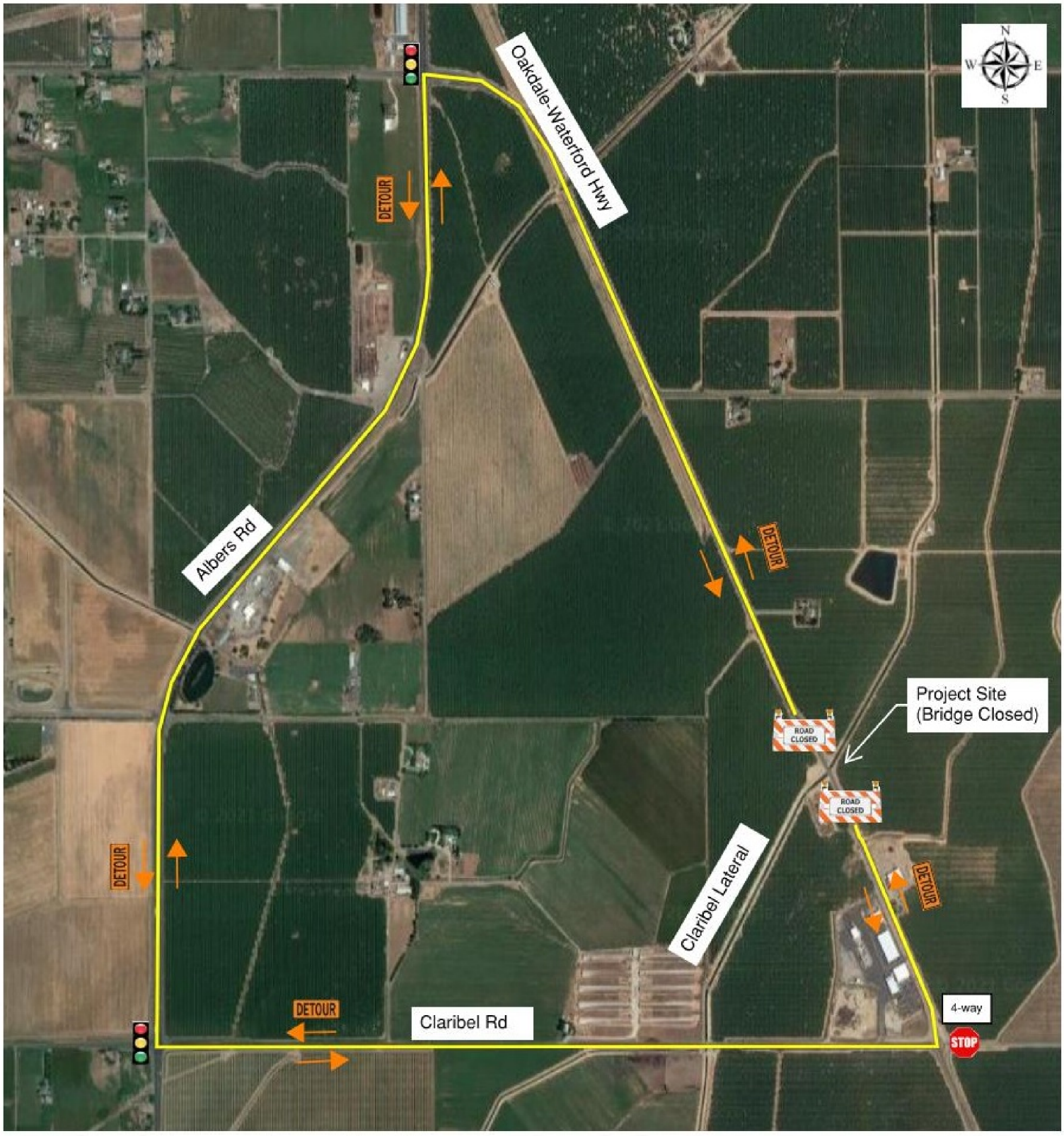


FIGURE 4. DETOUR MAP
Oakdale-Waterford Highway over Claribel Lateral
Bridge Replacement Project

2.0 Environmental Factors Potentially Affected

Environmental factors that are checked contain at least one impact that has been determined to be a "Potentially Significant Impact." Environmental factors unchecked indicate that impacts were determined to have resulted in no impacts, less than significant impacts, or less than significant impacts with mitigation measures incorporated into the project.

☐ Aesthetics	☐ Greenhouse Gas Emissions	☐ Public Services
☐ Agriculture & Forestry Resources	☐ Hazards & Hazardous Materials	☐ Recreation
☐ Air Quality	☐ Hydrology & Water Quality	☐ Transportation
☐ Biological Resources	☐ Land Use & Planning	☐ Tribal Cultural Resources
☐ Cultural Resources	☐ Mineral Resources	☐ Utilities & Service Systems
☐ Energy	☐ Noise	☐ Wildfire
☐ Geology & Soils	☐ Population & Housing	☐ Mandatory Findings of Significance

3.0 Determination

On the basis of this initial evaluation:

☒ I find that the project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT (EIR) is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the project, nothing further is required.

Signature	Date
Chuck Covolo	Stanislaus County Department of Public Works
Printed Name	For

4.0 Evaluation of Environmental Impacts

Potential environmental effects of the project are classified and described within the CEQA Environmental Checklist under the following general headings:

"No Impact" applies where the impact simply does not apply to projects like the one involved. For example, if the project area is not located in a fault rupture zone, then the item asking whether the project would result in or expose people to potential impacts involving fault rupture should be marked as "No Impact."

"Less Than Significant Impact" applies where the impact would occur, but the magnitude of the impact is considered insignificant or negligible. For example, a development which would only slightly increase the amount of surface water runoff generated at a project area would be considered to have a less than significant impact on surface water runoff.

"Less Than Significant Impact With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." Incorporated mitigation measures should be outlined within the checklist and a discussion should be provided which explains how the measures reduce the impact to a less than significant level. This designation is appropriate for a MND, where all potentially significant issues have been analyzed and mitigation measures have been recommended that reduces all impacts to levels that are less than significant.

"Potentially Significant Impact" applies where the project has the potential to cause a significant and unmitigable environmental impact. If there are one or more items marked as "Potentially Significant Impact," an EIR is required.

4.1 Aesthetics

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Except as provided in Public Resources Code (PRC) Section 21099, would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c. 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 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?	☐	☐	☒	☐
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

Regulatory Setting

Local Regulations

Stanislaus County General Plan

The General Plan's Conservation/Open Space Element and Land Use Element outline the following goals and policies regarding visual resources (Stanislaus County, 2015):

- Goal One: Encourage the protection and preservation of natural and scenic areas throughout the County.
    - Policy Two: Assure compatibility between natural areas and development.
- Goal One: Provide for diverse land use needs by designating patterns which are responsive to the physical characteristics of the land as well as to environmental, economic, and social concerns of the residents of Stanislaus County.
    - Policy Two: Land designated Agriculture shall be restricted to uses that are compatible with agricultural practices, including natural resources management, open space, outdoor recreation, and enjoyment of scenic beauty.

Environmental Setting

Land uses within and immediately adjacent to the project area include AG land use to the north, south, east, and west of Oakdale-Waterford Highway; there is also a small section of IND land use southwest of the project area. Land surrounding the channel consists of agricultural crops; there are orchard trees in all four quadrants adjacent to the bridge, with the closest trees located approximately 40 feet from the

north end of the bridge. There are dirt access roads on both sides of the channel northeast and southwest of the bridge. The shoulders of the road and access roads are largely unvegetated with small amounts of ruderal vegetation. The terrain immediately surrounding the current bridge is primarily flat with no prevalent landforms.

Discussion of Checklist Responses

a. Would the project have a substantial adverse effect on a scenic vista?

No Impact. According to the Stanislaus County General Plan (General Plan), there are no designated scenic vistas within the county. Therefore, the project would result in no impact on scenic vistas.

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. There are no state scenic highways in the project area. The nearest scenic highway is Interstate 5 (I-5) located approximately 35 miles west from the project area (California Department of Transportation, 2020a). This scenic highway is not visible from the project area. Therefore, the project would result in no impact on a state scenic highway.

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 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. Viewer groups potentially affected by project construction would include motorists and residents. The project area is visible from nearby rural residential properties. Views from the project area include the transportation facility and surrounding agricultural properties.

During project construction, staging and storage areas for vehicles, equipment, material, fuels, lubricants, and solvents would be located on the roadway approaches and the canal access road. Staging locations would temporarily block views of the surrounding land. In addition, construction of the realigned canal access road may require the removal of trees located on the edges of surrounding orchards. Only a few trees on each corner would be removed. The orchards would remain largely intact, and the properties would still contain agricultural land. Visual quality of the surroundings would not be degraded due to the minor changes to the visual setting. Therefore, views from the proposed bridge of surrounding landscape would be comparable in character and quality to existing views.

The project would include replacing the existing bridge with a double box culvert bridge. The profile of the road would be raised slightly over the existing profile to meet AASHTO design standards. In addition, the new bridge would include crash-tested concrete or steel post barriers, which would be of a slightly different visual character than the existing barriers. Guardrails, which were not part of the old bridge design, would be included with the new bridge. The new bridge rails would also be taller in order to meet code requirements for bicycle railings. Views of the surrounding areas would not be blocked or distorted, even with these changes. Views of the orchards would still be seen with these design changes. The proposed bridge would be approximately the same width and length as the existing bridge and located on the same alignment. The new bridge structure was designed to have similar aesthetics to that of the

existing bridge. Therefore, the project would result in a less than significant impact on visual character and quality.

d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No Impact. There is no existing roadway lighting within the project area and the only existing source of nighttime lighting is from vehicle headlights. No new sources of lighting or glare would be added as part of the proposed project. Therefore, the project would result in no impact on light and glare.

Avoidance, Minimization, and/or Mitigation Measures

The project would result in a less than significant impact on Aesthetics. The project would not require Avoidance, Minimization, and/or Mitigation Measures for Aesthetics.

4.2 Agriculture and Forestry Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information complied 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 forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resource 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 (FMMP) of the California Resources Agency, to nonagricultural 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 PRC section 12220(g)), timberland (as defined by PRC 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?	☐	☐	☒	☐

The following discussion incorporates the results of the Farmland Impacts Technical Memorandum that was prepared for this project (GPA Consulting, 2021).

Regulatory Setting

State Regulations

Williamson Act

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, is a California law for farmland protection. The Williamson Act enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments which are much lower than normal because they are based upon farming and open space uses as opposed to full market value (California Department of Conservation, Division of Land Resource Protection, 2015). The intent of the Williamson Act is to encourage voluntary land conservation, particularly conservation of agricultural land in California. CEQA requires the review of projects that would convert Williamson Act contract land to non-agricultural uses.

Local Regulations

Stanislaus County General Plan

The General Plan's Agriculture Element and Land Use Element outline the following goals and policies regarding agricultural and forestry resources (Stanislaus County, 2015):

- Goal Two: Conserve our agricultural lands for agricultural uses.
    - Policy 2.2: The County shall support reasonable measures to strengthen the Williamson Act, making it a more effective tool for the protection of agricultural land.
- Goal One: Provide for diverse land use needs by designating patterns which are responsive to the physical characteristics of the land as well as to environmental, economic, and social concerns of the residents of Stanislaus County.
    - Policy Two: Land designated Agriculture shall be restricted to uses that are compatible with agricultural practices, including natural resources management, open space, outdoor recreation, and enjoyment of scenic beauty.
- Goal Three: Foster stable economic growth through appropriate land use policies.
    - Policy Seventeen: Agriculture, as the primary industry of the County, shall be promoted and protected.

Environmental Setting

Land uses within and immediately adjacent to the project area include AG land use to the north, south, east, and west of Oakdale-Waterford Highway; there is also a small section of IND land use southwest of the project area (Stanislaus County, 2008). According to the CDOC Important Farmland Map, the four parcels adjacent to the project are designated as Unique Farmland (California Department of Conservation, 2016). The four parcels adjacent to the project area are zoned as A-2-40.

Claribel Lateral is an earthen bottom irrigation canal. An earthen bottom irrigation canal is a manmade feature with an earthen bottom and is used to convey water to the surrounding agricultural fields for irrigation use. Vegetation within and around the channel is sparce and consists of grass and weeds. There are unpaved/dirt access roads on both sides of the channel approaching the bridge, which are likely used for maintenance of the channel or for agricultural cultivation. The shoulders of the road and access roads are mostly unvegetated with small amounts of ruderal vegetation and may provide some off-road parking

to neighboring agricultural land. Land surrounding the channel and bridge consists of agricultural crops; there are orchard trees in all four quadrants adjacent to the bridge, with the closest trees located approximately 40 feet from the north end of the bridge.

Discussion of Checklist Responses

a. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program (FMMP) of the California Resources Agency, to nonagricultural use?

Less Than Significant Impact. Land use in the project area is designated as AG. According to the CDOC Important Farmland Map, the four parcels adjacent to the project area are designated as Unique Farmland (California Department of Conservation, 2016). Portions of the existing roadway and bridge are within County ROW. A 0.16-acre TCE would be needed from existing County ROW adjacent to parcel APN 064-032-073 (located in the southeast quadrant of the project area), which would serve as a temporary staging area during construction. The TCE would not impact access to the adjacent properties or change the existing land use. It is anticipated that permanent ROW acquisition would be needed to accommodate the realigned canal access roads from four adjacent parcels: APNs 064-032-070, 064-032-069, 064-032-073, and 064-032-047. The permanent ROW acquisitions (approximately 0.14 acre total) would be on land designated by the CDOC as Unique Farmland. As shown in **Appendix A**, a Natural Resources Conservation Service (NRCS) Farmland Conversion Impact Rating Analysis was completed for the project. Only 0.14 acre (less than one percent) would be unfarmable after completion of the project due to permanent acquisition of AG land. The remaining farmland would continue to be used for agricultural purposes and would not be impacted by the project. The results of the site assessment totaled 85 points which is greater than the 60 point threshold; therefore, consultation with NRCS was required. The NRCS completed their respective potion of the site assessment, and determined the site is not subject to the Farmland Protection Policy Act. Therefore, the project would result in a less than significant impact on Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

Less Than Significant Impact. According to the County's Williamson Act Parcels and Non-Renewals Data Basin, three parcels within the project area, APNs 064-032-069, 064-032-073, and 064-032-047, are enrolled in a Williamson Act Contract (Conservation Biology Institute, 2015). According to Government Code Section 51295, when a transportation project would acquire only portion of a parcel of land subject to a Williamson Act contract, the contract is deemed null and void only for that portion of the Williamson Act farmland taken, and the remaining land would continue to be subject to the preservation contract. The project would require permanent ROW acquisition from four adjacent parcels, three of which are under a Williamson contract. Per Government Code Section 51295, the portion acquired for the bridge replacement would no longer be under a Williamson Act contract. The remaining farmland on this parcel would continue to be farmable. Therefore, the project would result in a less than significant impact on agricultural land and land under Williamson Act contract.

c. Would the project conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production?

No Impact. The project would not conflict with land zoned as forest land as there is no forest land in the project area. The parcels that may be acquired are zoned A-2-40, and their acquisition would not impact land zoned as forest land. Therefore, the project would result in no impact on forest land or timberland.

d. Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. As described in the response to (c) above, no forest or timberland are located in the project area. Therefore, the project would result in no impact on forest land.

e. Would the project 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?

Less Than Significant Impact. As described in the responses to (a-d) above, less than one percent of farmland adjacent to the project area would be unfarmable after completion of the project and no forest or timberland are located in the project area. Therefore, the project would result in less than significant impact on farmland and forest land.

Avoidance, Minimization, and/or Mitigation Measures

The project would result in a less than significant impact on Agriculture and Forestry Resources. The project would not require Avoidance, Minimization, and/or Mitigation Measures for Agriculture and Forestry Resources.

4.3 Air Quality

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
	When available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the Project:				
a.	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b.	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?	☐	☐	☒	☐
c.	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d.	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Regulatory Setting

Federal Regulations

Federal Clean Air Act

The National Ambient Air Quality Standards (NAAQS) were established by the Federal Clean Air Act of 1970 (FCAA), as amended in 1977 and 1990. The FCAA requires the U.S. EPA to establish NAAQS for six criteria pollutants including, carbon monoxide (CO), ozone (O_3), particulate matter equal to or smaller than 10 microns (PM_{10}) or 2.5 microns ($PM_{2.5}$) in diameter, sulfur dioxide (SO_2), nitrogen dioxide (NO_2), and lead (Pb).

State Regulations

California Clean Air Act

The California Air Resources Board (CARB) administers air quality policy in California. The California Ambient Air Quality Standards (CAAQS) were established in 1969 pursuant to the Mulford-Carrell Act. These standards are generally more stringent and apply to more pollutants than NAAQS (i.e., visibility reducing particulates, hydrogen sulfide (H_2S), and sulfates (SO_4)).

Under the California Clean Air Act (CCAA), the CARB requires that each local air district prepare and maintain an air quality management plan to achieve compliance with CAAQS. These standards are generally more stringent and apply to more pollutants than the NAAQS. The CCAA requires that each local air district prepare and maintain an air quality management plan (AQMP) to achieve compliance with CAAQS.

These AQMPs also serve as the basis for preparation of the State Implementation Plan (SIP) for the State of California. CARB also administers the state's mobile source emissions control program and oversees air quality programs established by state statute, such as Assembly Bill (AB) 2588, the Air Toxics "Hot Spots" Information and Assessment Act of 1987.

California Air Resource Board Rules and Regulations

The following CARB Rules and Regulations are applicable to the project:

In-Use Off-Road Diesel Vehicle Regulations

This regulation limits vehicle idling to no more than five consecutive minutes and requires equipment to be reported to CARB and labeled.

Local Regulations

San Joaquin Valley Air Pollution Control District Air Quality Plans

The project area is located in the San Joaquin Valley Air Basin (SJVAB), under the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD). This agency is responsible for air quality monitoring in the eight counties of California's Central Valley, including Stanislaus County. **Table 1** shows the current attainment status for the state and federal ambient air quality standards for the SJVAB.

Table 1 Ambient Air Quality Standards & Valley Attainment Status

Pollutant	Designation/Classification	
	Federal Standards [a]	State Standards [b]
O_3 1-Hour	No Federal Standard [f]	Nonattainment/Severe
O_3 8-Hour	Nonattainment /Extreme [e]	Nonattainment
PM_{10}	Attainment [c]	Nonattainment
$PM_{2.5}$	Nonattainment [d]	Nonattainment
CO	Attainment/Unclassified	Attainment/Unclassified
NO_2	Attainment/Unclassified	Attainment
SO_2	Attainment/Unclassified	Attainment
Pb	No Designation/Classification	Attainment
H_2S	No Federal Standard	Unclassified
SO_4	No Federal Standard	Attainment
Visibility Reducing Particles	No Federal Standard	Unclassified
Vinyl Chloride	No Federal Standard	Attainment

Source: (San Joaquin Valley Air Pollution Control District, n.d.)
Notes:
[a] See 40 CFR Part 81
[b] See CCR Title 17 Sections 60200-60210
[c] On September 25, 2008, EPA redesignated the San Joaquin Valley to attainment for the PM_{10} NAAQS and approved the PM_{10} Maintenance Plan.
[d] The Valley is designated nonattainment for the 1997 $PM_{2.5}$ NAAQS. EPA designated the Valley as nonattainment for the 2006 $PM_{2.5}$ NAAQS on November 13, 2009 (effective December 14, 2009).
[e] Though the Valley was initially classified as serious nonattainment for the 1997 8-hour O_3 standard, EPA approved Valley reclassification to extreme nonattainment in the Federal Register on May 5, 2010 (effective June 4, 2010).
[f] Effective June 15, 2005, the EPA revoked the federal 1-hour O_3 standard, including associated designations and classifications. EPA had previously classified the SJVAB as extreme nonattainment for this standard. EPA approved the 2004 Extreme O_3 Attainment Demonstration Plan on March 8, 2010 (effective April 7, 2010). Many applicable requirements for extreme 1-hour O_3 nonattainment areas continue to apply to the SJVAB.

To work towards attainment of O_3, $PM_{2.5}$, and PM_{10} standards, the SJVAPCD has adopted the following air quality plans:

- 2004 Extreme Ozone Attainment Demonstration Plan
- 2007 Ozone Plan
- 2009 Reasonably Available Control Technology SIP
- 2013 Plan for the Revoked 1-Hour Ozone Standard
- 2014 Reasonably Available Control Technology (RACT) SIP
- 2016 Plan for the 2008 8-Hour Ozone Standard
- 2020 RACT Demonstration
- 2008 $PM_{2.5}$ Plan
- 2012 $PM_{2.5}$ Plan
- 2016 $PM_{2.5}$ Plan
- 2018 $PM_{2.5}$ Plan
- 2007 PM_{10} Maintenance Plan

San Joaquin Valley Air Pollution Control District Rules and Regulations

The following SJVAPCD Rules and Regulations are applicable to the project:

Rule 4101-Visible Emissions

The purpose of this rule is to prohibit the emissions of visible air contaminants to the atmosphere. This rule prohibits any single source emission (other than water vapor) from being discharged for a period or periods aggregating more than three (3) minutes in any one (1) hour. The following air contaminants are subject to this rule.

- Air contaminants that are as dark or darker than the number one shade designated on the Ringelmann Chart published by the United States Bureau of Mines.
- Air contaminants that are opaque enough to obscure an observer's view to a degree equal to or greater than the smoke described in the bullet point above.

Rule 4102-Nuisance

The purpose of this rule is to protect the health and safety of the public. This rule prohibits the discharge from any source whatsoever such quantities of air contaminants or other materials which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health, or safety of any such person or the public or which cause or have a natural tendency to cause injury or damage to business or property.

Rule 4201-Particulate Matter Concentration

The purpose of this rule is to protect the ambient air quality by establishing a PM emission standard. This rule prohibits the release or discharge of dust, fumes, or total suspended PM emissions in excess of 0.1 grain per cubic foot of gas at dry standard conditions from any single source operation.

Rule 8021-Construction, Demolition, Excavation, Extraction, and other Earthmoving Activities

The purpose of this rule is to limit fugitive dust emissions from construction, demolition, excavation, extraction, and other earthmoving activities. This rule prohibits any construction, demolition, excavation,

extraction, or other earthmoving activities to be performed unless the appropriate requirements described in sections 5.1 through 5.5 of the rule are implemented.

Rule 4641-Cutback, Slow Cure, and Emulsified Asphalt, Paving, and Maintenance Operations

The purpose of this rule is to limit volatile organic compounds (VOC) emissions by restricting the application and manufacturing of certain types of asphalt for paving and maintenance operations. This rule prohibits the manufacture for sale or use of any of the following for penetrating prime coat, tack coat, dust palliative, or other paving and maintenance operations:

- Rapid cure cutback asphalt;
- Medium cure cutback asphalt;
- Slow cure asphalt which as produced for application, contains more than one-half (0.5) percent of organic compounds which evaporate at 500°F or lower.
- Emulsified asphalt containing organic compounds, in excess of three (3) percent by volume, which evaporate at 500°F or lower.

Rule 8041-Carryout and Trackout

The purpose of this rule is to prevent or limit fugitive dust emissions from carryout and trackout. This rule requires owners/operators to sufficiently prevent or cleanup carryout and trackout through the methods described in sections 5.1 through 5.9 of the rule. In addition, the rule prohibits the use of blower devices, or dry rotary brushes or brooms, for removal of carryout and trackout on public roads.

Rule 8061-Paved and Unpaved Roads.

The purpose of this rule is to limit fugitive dust emissions from paved and unpaved roads. This rule requires the implementation of control measures and design criteria to minimize fugitive dust.

Stanislaus County General Plan

The General Plan's Agriculture Element and Conservation/Open Space Element outlines the following goals and policies regarding air quality (Stanislaus County, 2015):

- Goal Three: Protect the natural resources that sustain our agricultural industry.
    - Policy 3.1: The County shall continue to coordinate with the San Joaquin Valley Air Pollution Control District.
    - Policy 3.2: The County shall assist the San Joaquin Valley Air Pollution Control District in implementation of adopted plans and regulations.
- Goal Six: Improve air quality.
    - Policy Eighteen: The County will promote effective communication, cooperation, and coordination among agencies involved in developing and operating local and regional air quality programs.

Discussion of Checklist Responses

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact. Based on monitored air pollutant concentrations, the EPA and the CARB designate an area's status in attaining the NAAQS and CAAQS, respectively, for criteria pollutants. The

SJVAB is currently designated as a nonattainment area for the state and federal O_3 and $PM_{2.5}$ standards, and the state PM_{10} standard. Project construction would be subject to the aforementioned SJVAPCD rules and regulations. With implementation of standard measures, such as applying water or dust suppressants to unpaved surface areas, the project would be consistent with the goals of the SJVAPCD air quality plans.

Operation of the project would not generate new stationary or mobile sources of emissions. The project would maintain the same number of through lanes (one in each direction) and would not increase capacity or result in additional vehicles on the roadway. The level of vehicle emissions would not increase since the number of vehicles would stay the same. Therefore, no long-term air quality impacts would result from the project.

b. Would the project 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. The SJVAB is currently designated as a nonattainment area for the state and federal O_3 and $PM_{2.5}$ standards, and the state PM_{10} standard. Construction of the project would generate temporary, short-term emissions of various air pollutants. Construction activities with the potential to result in fugitive dust emissions include excavation and other earth-moving activities. Mobile source emissions include primarily oxides of nitrogen (NO_x), CO, VOC, PM_{10}, $PM_{2.5}$, and diesel particulate matter (DPM). Emissions could also lead to the formation of O_3, which is a regional pollutant that is derived from NO_X and VOCs in the presence of sunlight and heat. Construction activities that have the potential to result in mobile source emissions include the use of construction equipment (bulldozers, trucks, and scrapers), truck delivery of construction materials, hauling of construction debris, and workers commuting to and from the project area. Mobile source emissions from construction equipment are highest during use of heavy-duty, diesel-fueled equipment.

CARB has passed numerous regulations to reduce the public's exposure to DPM and NO_x emissions. For example, the In-Use Off-Road Diesel Vehicle Regulation includes enforceable elements, such as limits on vehicle idling to no more than five consecutive minutes, and equipment reporting and labeling. Construction activities for the project would be required to comply with these regulations. Project construction would also be subject to SJVAPCD rules and regulations. Standard measures, such as applying water and dust suppressants to unpaved surface areas, would also be implemented.

As discussed in response (a), operation of the project would not generate new stationary or mobile sources of emissions because the project would maintain the same number of through lanes and would not increase capacity or result in additional vehicles on the roadway, and no long-term air quality impacts would result from the project. Therefore, the project would result in a less than significant impact on criteria pollutants.

c. Would the project expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. Sensitive receptors are persons who are more susceptible to the effects of air pollution than the general population, including children, athletes, the elderly, and the chronically ill. Typical land uses where substantial numbers of sensitive receptors are often found are schools, daycare centers, parks, recreation areas, agricultural fields, medical facilities, nursing homes, and convalescent care facilities. Residential areas are also considered to be sensitive to air pollution because residents

(including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to pollutants. The nearest existing residential dwellings are located approximately 312 feet from the existing bridge and approximately 230 feet from the project area. The project area is surrounded by agricultural properties. Although agricultural workers would not be classified as a sensitive receptor, they would be exposed to higher levels of pollutants during construction due to their proximity to the project area.

Construction activities would result in short-term, project-generated emissions of DPM from the exhaust of off-road, heavy-duty diesel equipment used for grading and paving activities. However, there would be relatively few pieces of off-road, heavy-duty diesel equipment in operation, and the construction period would be relatively short (approximately nine to 12 months total). Construction would comply with standard measures and applicable regulations to minimize construction emissions. In addition, DPM is highly dispersive, and construction-related emissions of diesel PM would not be expected to result in exposure of sensitive receptors to substantial pollutant concentrations. The project is not expected to increase criteria pollutant emissions during operation because the project would maintain the same number of through lanes and would not increase capacity or result in additional cars on the roadway. Therefore, the project would result in less than significant impacts related to exposing sensitive receptors to substantial pollutant concentrations.

d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less than Significant Impact. The project is located in a rural area of Stanislaus County. Irritating odors are often associated with particulates. Some examples of sources are gasoline and diesel engine exhausts, paint spraying, and street paving. During construction, the project could result in potential odors from exhaust emissions from construction equipment used on the construction site, as well as the vehicles used to transport materials to and from the site, and from the motor vehicles of the construction crew. These exhaust emissions include VOC, CO, O_3, NO_2, and oxides of sulfur. However, the odors would be temporary during the construction period and not affect a substantial amount of people. Following construction, odors would not be greater than the existing odors emitted prior to project construction. Therefore, the project would result in a less than significant impact related to odors affecting a substantial number of people.

Avoidance, Minimization, and/or Mitigation Measures

The project would result in a less than significant impact on Air Quality. The project would not require Avoidance, Minimization, and/or Mitigation Measures for Air Quality.

4.4 Biological Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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 CDFW or USFWS?	☐	☐	☒	☐
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 CDFW or USFWS?	☐	☐	☐	☒
c. Have a substantial adverse effect on state or federally protected wetland (including but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f. Conflict with the provisions of an adopted Habitat Conservation Plan (HCP); Natural Community Conservation Plan; or other approved local, regional, or state HCP?	☐	☐	☐	☒

The following discussion incorporates the results of the Natural Environment Study Minimal Impacts (NESMI) that was prepared for this project (GPA Consulting, 2022a).

Regulatory Setting

Federal Regulations

Clean Water Act

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into waters of the U.S. to maintain water quality standards for surface waters.

Clean Water Act Section 404

The United States Army Corps of Engineers (USACE) Regulatory Program regulates activities within federal wetlands and waters of the U.S. pursuant to Section 404 of the CWA. No discharge of dredged or fill

material into jurisdictional features is permitted unless authorized under an USACE Nationwide Permit or Individual Permit.

Clean Water Act Section 401

The State Water Resources Control Board (SWRCB) and RWQCB are responsible for the administration of Section 401 of the CWA in the state of California. Under Section 401 of the CWA, applicants for federal licenses or permits must provide a Water Quality Certification that any discharges from a project will comply with the CWA, including state-established water quality standard requirements. For all work subject to an USACE Section 404 permit, project proponents must obtain a Water Quality Certification from the applicable RWQCB under CWA Section 401 stating that the project would comply with applicable water quality regulations.

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) was established in 1973 to provide a framework to conserve and protect endangered and threatened species and their habitat. Section 7 of the FESA requires federal agencies to ensure that actions they engage in, permit, or fund, do not jeopardize the continued existence of endangered or threatened species, or result in the destruction or adverse modification of designated critical habitat for these species. Section 7 consultation provides for the "incidental take" of endangered and threatened wildlife species by federal entities if adverse effects to species cannot be avoided. Incidental take is defined by the FESA as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. The term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (50 CFR Part 10 and Part 21) protects migratory birds, their occupied nests, and their eggs from disturbance and/or destruction. "Migratory birds" under the MBTA include all bird species listed in 50 CFR Part 10.13, as updated in December 2013 (United States Fish and Wildlife Service, 2013). In accordance with the Migratory Bird Treaty Reform Act of 2004 the United States Fish and Wildlife Service (USFWS) included all species native to the U.S. (or U.S. territories) that are known to be present as a result of natural biological or ecological processes. In addition, the USFWS provided clarification that the MBTA does not apply to any nonnative species whose presence in the U.S. are solely the result of intentional or unintentional human-assisted introduction (United States Fish and Wildlife Service, 2018). Nonnative bird species not protected by the MBTA include, but is not limited to, the house sparrow (*Passer domesticus*), European starling (Sturnus vulgaris), and rock pigeon (*Columba livia*).

Executive Order 13112

Executive Order 13112 directs all federal agencies to refrain from authorizing, funding, or carrying out actions or projects that may spread invasive species. This order further directs federal agencies to prevent the introduction of invasive species, control and monitor existing invasive species populations, restore native species to invaded ecosystems, research and develop prevention and control methods for invasive species, and promote public education on invasive species.

State Regulations

Porter Cologne Act

The RWQCB also asserts authority over waters of the state under the Porter-Cologne Act, which establishes a regulatory program to protect water quality and to protect beneficial uses of state waters. The Porter-Cologne Act empowers the RWQCB to formulate and adopt a Water Quality Control Plan that designates beneficial uses and establishes such water quality objectives that in its judgment will ensure reasonable protection of beneficial uses. Each RWQCB establishes water quality objectives that will ensure the reasonable protection of beneficial uses and the prevention of water quality degradation. Dredge or fill activities with the potential to affect water quality in these waters must comply with Waste Discharge Requirements issued by the RWQCB.

California Fish and Game Code

Under the California Fish and Game Code Section 1602, the limits of CDFW jurisdiction within streams and other drainages extends from the top of the stream bank to the top of the opposite bank, to the outer drip line in areas containing riparian vegetation, and/or within the 100-year floodplain of a stream or river system containing fish or wildlife resources. Under Section 1602, a Streambed Alteration Agreement must be issued by the CDFW prior to the initiation of construction activities that may substantially divert or obstruct the natural flow of any river, stream, or lake; substantially change or use any material from the bed, channel, or bank, of any river, stream, or lake; or deposit debris, waste, or other materials that could pass into any river, stream, or lake under CDFW's jurisdiction.

Section 2126 of the California Fish and Game Code states that it is unlawful for any person to take any mammal that are identified within Section 2118, including all species of bats.

Sections 3503, 3513, and 3800 of the California Fish and Game Code prohibit the take of birds protected under the MBTA and protects their occupied nests. In addition, Section 3503.5 of the California Fish and Game Code prohibits the take of any birds in the order Falconiformes or Strigiformes (birds-of-prey) and protects their occupied nests. Pursuant to Section 3801 and 3800, the only species authorized for take without prior authorization from the CDFW is the English sparrow and European starling.

State-listed species and those petitioned for listing by the CDFW are fully protected under the California Endangered Species Act (CESA). Under Section 2080.1 of the California Fish and Game Code, if a project would result in take of a species that is both federally and state listed, a consistency determination may be completed in lieu of undergoing a separate CESA consultation. Under Section 2081, if a project would result in take of a species that is state-only listed as threatened or endangered, then an incidental take permit from the CDFW is required.

Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code prohibit the take or possession of 37 fully protected bird, mammal, reptile, amphibian, and fish species. Each of the statutes state that no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to "take" the species, and states that no previously issued permit or licenses for take of the species "shall have any force or effect" for authorizing take or possession. The CDFW will not authorize incidental take of fully protected species when activities are proposed in areas inhabited by those species.

California Environmental Quality Act

Section 15380 of the CEQA Guidelines requires that species of special concern be included in an analysis of project impacts. California Species of Special Concern include species that are native to California and are experiencing population declines but are not currently listed as threatened or endangered, all state and federally protected and candidate species, Bureau of Land Management, and United States Forest Service sensitive species. Species considered declining or rare by the California Native Plant Society or National Audubon Society, and a selection of species which are considered to be under population stress but are not formally proposed for listing, are also included under species of special concern.

Local Regulations

Stanislaus County General Plan

The General Plan's Conservation/Open Space Element outlines the following goals and policies regarding biological resources (Stanislaus County, 2015):

- Goal One: Encourage the protection and preservation of natural and scenic areas throughout the County.
    - Policy Three: Areas of sensitive wildlife habitat and plant life (e.g., vernal pools, riparian habitats, flyways, and other waterfowl habitats, etc.) including those habitats and plant species listed by state or federal agencies shall be protected from development and/or disturbance.
- Goal Two: Conserve water resources and protect water quality in the County.
    - Policy Six: Preserve natural vegetation to protect waterways from bank erosion and siltation.
- Goal Ten: Protect fish and wildlife species of the County.
    - Policy 29: Habitats of rare and endangered fish and wildlife species, including special status wildlife, and plants shall be protected.

Environmental Setting

Biological Study Area

The Biological Study Area (BSA) includes areas that could be directly or indirectly impacted by the project, either temporarily or permanently including the staging of construction equipment. The limits of the BSA were determined by reviewing project plans and aerial photography, as well as evaluating potential jurisdictional areas during a field visit. The BSA is surrounded by orchards and includes land being used for agriculture. The BSA is located along the Oakdale-Waterford Highway north of the City of Waterford and south of the City of Oakdale at the crossing over the Claribel Lateral. A 20 to 100 foot buffer around the roadway and canal based on the project footprint and expected impacts was used to determine the BSA, which includes: almond orchards, Claribel Lateral, the Oakdale-Waterford Highway Bridge, and Oakdale-Waterford Highway.

Special Status Species

A California Natural Diversity Database (CNDDB) species list was obtained May 2021 to identify federally, and state listed species with the potential to be in the BSA based on their geographical range. USFWS and the National Marine Fisheries Service (NMFS) species lists were obtained in May 2021 for the same purpose and to identify potential critical habitat and Essential Fish Habitat within the BSA. The following

discussion describes the special-status plant and wildlife species with potential to be in the BSA based on (1) a record reported in the CNDDB, NMFS, and USFWS species lists, (2) the presence of suitable habitat, and (3) survey results.

Plants

According to the CNDDB and the USFWS Official Species List, 16 special-status plants have the potential to be in the BSA based on recorded geographical distribution (California Department of Fish and Wildlfie, 2021; United States Fish and Wildlife Service, 2021). Based on research and field surveys, there are no special-status plant species with potential to be in the BSA. No special-status plant species were observed in the BSA.

Animals

According to the CNDDB and the USFWS Official Species List, 32 special-status animals have the potential to be in the BSA based on recorded geographical distribution. Based on research and field surveys, two special-status animal species have potential to be in the BSA, the western pond turtle (*Actinemys marmorata*) and the western red bat (*Lasiurus blossevillii*) (CDFW, 2021b) (see **Table 2**). No special-status animal species were observed in the BSA during field surveys.

Natural Communities

According to the CNDDB, one special-status natural community has the potential to be in the BSA based on recorded geographical location. Based on field surveys, there are no special-status natural communities in the BSA.

Habitat Connectivity

A migration or wildlife corridor is an area of habitat that connects two or more patches of habitat that would otherwise be isolated from each other. Wildlife corridors are typically adjacent to urban areas. A functional wildlife corridor allows for ease of movement between habitat patches and is important in preventing habitat fragmentation. Habitat fragmentation is typically caused by human development and can lead to a decrease in biodiversity and ecosystem functionality.

The land surrounding the BSA is agriculture use comprised of orchards. According the CDFW's Biogeographic Information and Observation System (BIOS), there are no essential wildlife connectivity areas in the BSA. It is unlikely the BSA would be used as a migration or travel corridor but may be used for local wildlife movement and foraging.

Discussion of Checklist Responses

a. Would the project 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 CDFW or USFWS?

Less Than Significant Impact. A NESMI was completed for the project, which included literature research and biological survey. **Table 2** below summarizes the special status species with potential to be in the BSA. Special-status species with no potential to be in the BSA are not included in **Table 2**.

Table 2 Special Status Plant and Wildlife with Potential to be in the BSA

Common and Scientific Names	Status		General Habitat Requirements	Habitat Present / Absent	Rationale for Species Presence/Absence
	Federal USFWS	State CDFW			
Mammals					
Lasiurus blossevillii Western red bat	--	SSC	The western red bat roosts in forests and woodlands from sea level up through mixed conifer forests. This species is a solitary obligate foliage-roosting species, roosting primarily in trees, sometimes shrubs; roost sites often are in edge habitats adjacent to streams, fields, or urban areas. This species forages over a wide variety of habitats including grasslands, shrublands, open woodlands and forests, and croplands and may require unobstructed open water sources for drinking. Species is occasionally known to roost in orchards in the Sacramento Valley though it is not their preferred habitat.	HP	There are orchards present that might be used to roost. Therefore, this species has potential to be in the BSA.
Reptiles					
Emys marmorata Western pond turtle	--	SSC	The western pond turtle is found in slow moving rivers, streams, lakes, ponds, wetlands, reservoirs, and brackish estuarine waters. This species prefers areas that provide logs, algae, or vegetation for cover, and boulders, partially submerged logs, vegetation mats, or open mud banks for basking.	HP	There is slow moving water and open banks suitable for basking in the BSA. Therefore, this species has potential to be in the BSA.

Sources: (GPA Consulting, 2022a), *(Brown, Johnson, Kelly, & Williams, N.D.), (CaliforniaHerps, californiaherps.com, 2019), (Cal Fish, 2019), (Cornell University, 2019), (Seymour and Westphal, 1994), (Sibley, 2014), (United States Fish and Wildlife Service, 2021), and (USFWS, 2010).*

Notes: Table Key: Habitat Present [HP] – There is habitat present within the BSA. State Species of Special Concern (SSC).

The nesting habitat typically preferred by the western pond turtle is absent from the BSA. Claribel Lateral is heavily disturbed, and there are few previous documented observations of the species in the area. However, there is limited foraging habitat, and the species may pass through the BSA. Therefore, there is low potential for this species to be in and/or pass through the BSA.

Construction of the new bridge and temporary access roads, and demolition of the existing bridge could result in direct and indirect impacts on the western pond turtle, should individuals be in the construction

area. Direct impacts could include trampling or crushing this species or destruction of their burrows, resulting in mortality. Indirect impacts could include increased vibration and human activity from construction activities, which could disturb this species and cause disruption. Adverse impacts on the western pond turtle are not anticipated since they are not expected in the construction area.

While the western red bat has potential to roost in the BSA, the species does not have potential to roost within the construction area and removal of orchard trees are not expected. As an agricultural crop, the orchards are regularly maintained and are less desirable for species roosting. Therefore, the project would result in less than significant impacts on special status species. Implementation of avoidance and minimization measures **BIO-1** through **BIO-11** would further reduce impacts on the western pond turtle.

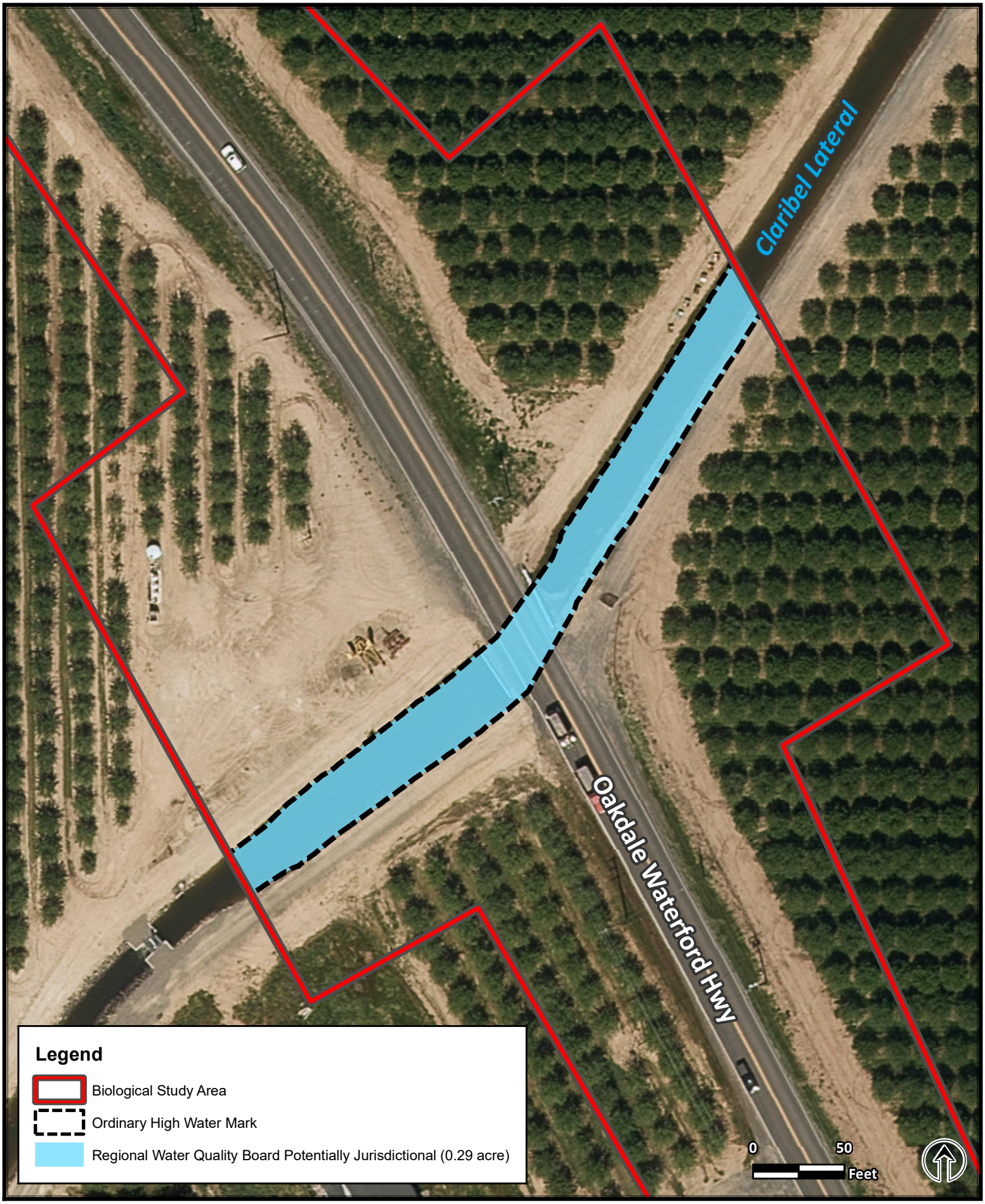
b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS?

No Impact. There is no riparian habitat within the BSA. In addition, there are no special-status communities expected to be in the BSA. Therefore, the project would result in no impact on any sensitive natural communities.

c. Would the project 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?

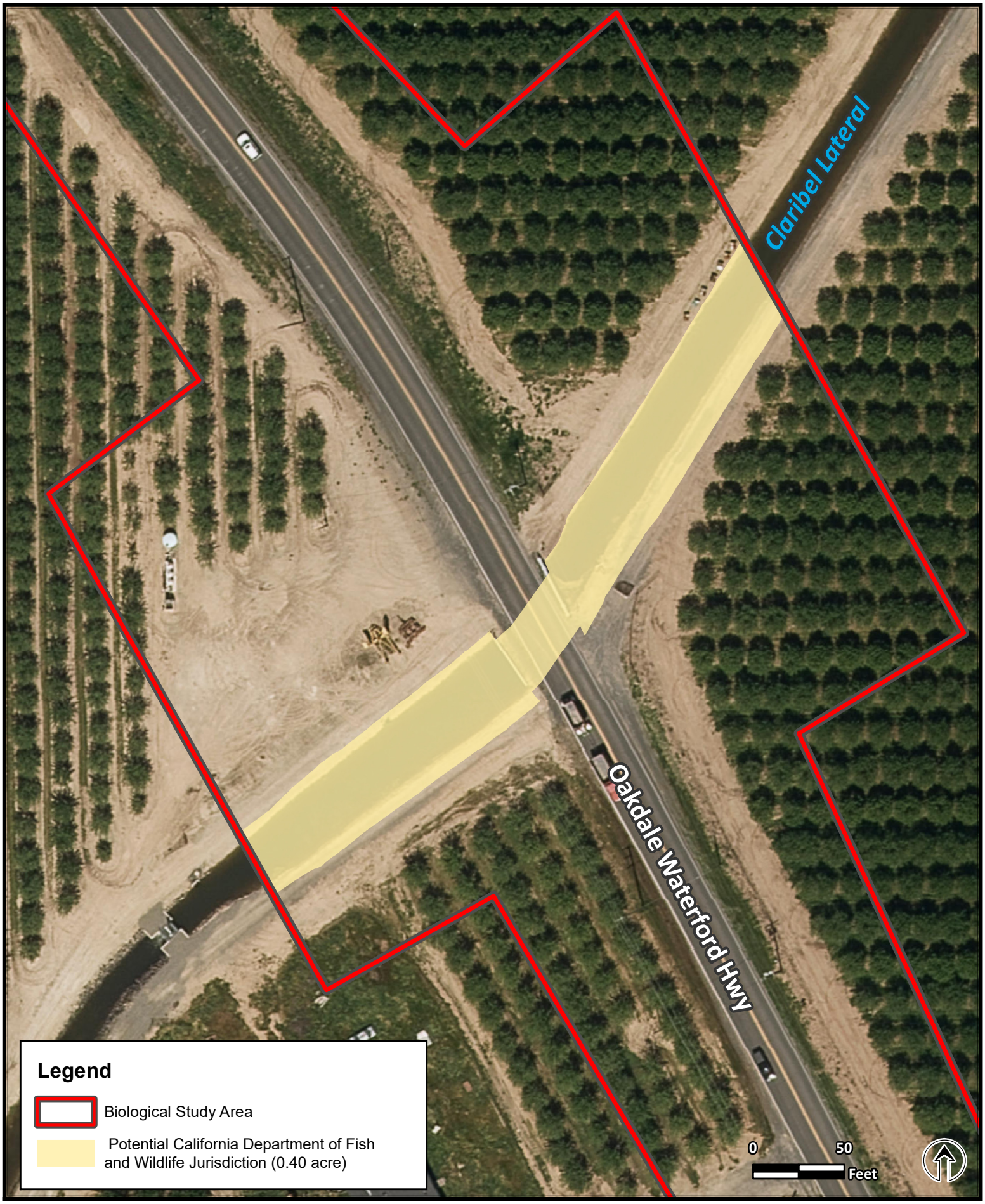
Less Than Significant Impact. The BSA was evaluated for wetlands and non-wetland waters under jurisdiction of the USACE and RWQCB by delineating the Ordinary High Water Mark (OHWM) and assessing the presence of hydrophytic vegetation, hydric soils, and wetland hydrology. There were no wetlands or non-wetland waters of the U.S. within the BSA based on the absence of sufficient wetland vegetation and that Claribel Lateral is primarily an agricultural canal. Therefore, Claribel Lateral is not expected to fall under the jurisdiction of the USACE (see **Table 3**). Approximately 0.29 acre of non-wetland waters of the state were delineated within the BSA (see **Table 3** and **Figure 5,** Potential Regional Water Quality Control Board Jurisdiction). At the time of survey, Claribel Lateral had flowing water and it appeared it was actively being used for agriculture. Therefore, Claribel Lateral is expected to fall under RWQCB jurisdiction.

The BSA was evaluated for waters under jurisdiction of the CDFW by delineating areas from the top of bank to the top of bank within Claribel Lateral. Approximately 0.40 acre under CDFW jurisdiction were delineated in the BSA (see **Table 3** and **Figure 6**, Potential California Department of Fish and Wildlife Jurisdiction). At the time of survey, Claribel Lateral had a defined bed and bank, conveyed water, and had minimal annual vegetation along the banks. The canal appeared to have enough water to support aquatic wildlife. Based on aerial imagery and field surveys there appears to be water during irrigation season. Therefore, this canal is expected to fall under CDFW jurisdiction.



Sources: ESRI 2021

FIGURE 5. POTENTIAL REGIONAL WATER QUALITY CONTROL BOARD JURISDICTION
Oakdale-Waterford Highway Over Claribel Lateral Bridge Replacement Project



Sources: ESRI 2021

FIGURE 6. POTENTIAL CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE JURISDICTION
Oakdale-Waterford Highway Over Claribel Lateral Bridge Replacement Project

Table 3 Jurisdictional Features in the BSA

Regulatory Agency	Jurisdictional Wetlands (acres)	Jurisdictional Non-Wetland Waters (acres)
United States Army Corps of Engineers	-	-
Regional Water Quality Control Board	-	0.29
California Department of Fish and Wildlife	-	0.40

Source: (GPA Consulting, 2022a)

Construction activities, including demolition of the existing bridge, grading, installation of bank armoring, and construction of the new bridge, would result in temporary and permanent impacts on jurisdictional areas.

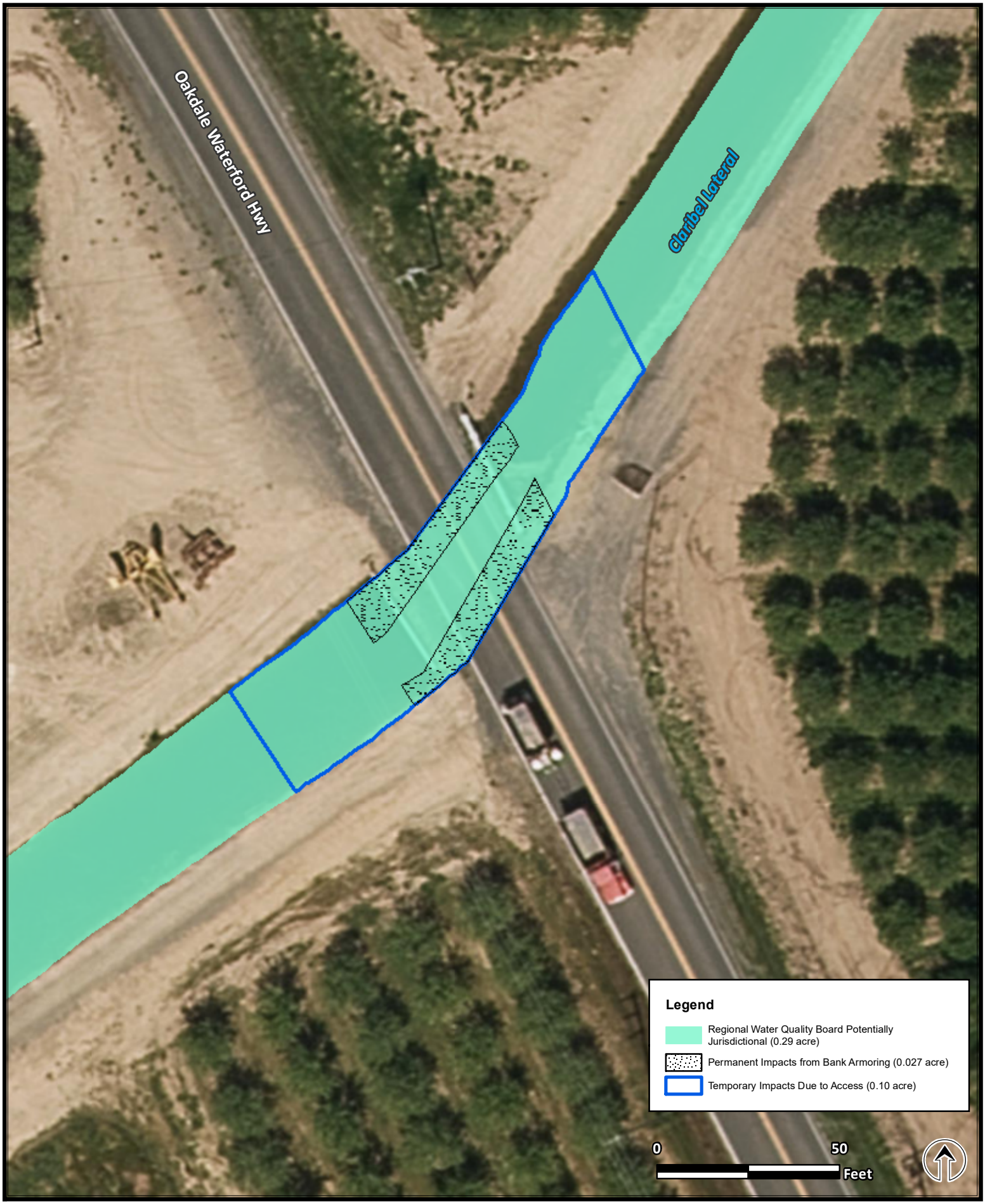
Equipment access during construction would result in temporary impacts on the canal. Soil disturbance would result in temporary impacts on approximately 0.10 acre of non-wetland waters under jurisdiction of the RWQCB and approximately 0.14 acre under CDFW jurisdiction (see **Figure 7,** Impacts on Potential Regional Water Quality Control Board Jurisdiction and **Figure 8,** Impacts on Potential California Department of Fish and Wildlife Jurisdiction). Installation of bank armoring would cover the soils and inhibit the potential for natural vegetation to grow, resulting in permanent impacts on approximately 0.03 acre of non-wetland waters under jurisdiction of the RWQCB and approximately 0.03 acre under CDFW jurisdiction (see **Table 4** and **Figure 7**, Impacts on Potential Regional Water Quality Control Board Jurisdiction and **Figure 8**, Impacts on Potential California Department of Fish and Wildlife Jurisdiction).

Table 4 Temporary and Permanent Impacts on Jurisdictional Features in the BSA

Regulatory Agency and Jurisdiction	Temporary Impacts (acres)	Permanent Impacts (acres)
United States Army Corps of Engineers Wetlands	-	-
United States Army Corps of Engineers Non-Wetland Waters	-	-
Regional Water Quality Control Board Wetlands	-	-
Regional Water Quality Control Board Non-Wetland Waters	0.10	0.03
California Department of Fish and Wildlife Jurisdiction	0.14	0.03

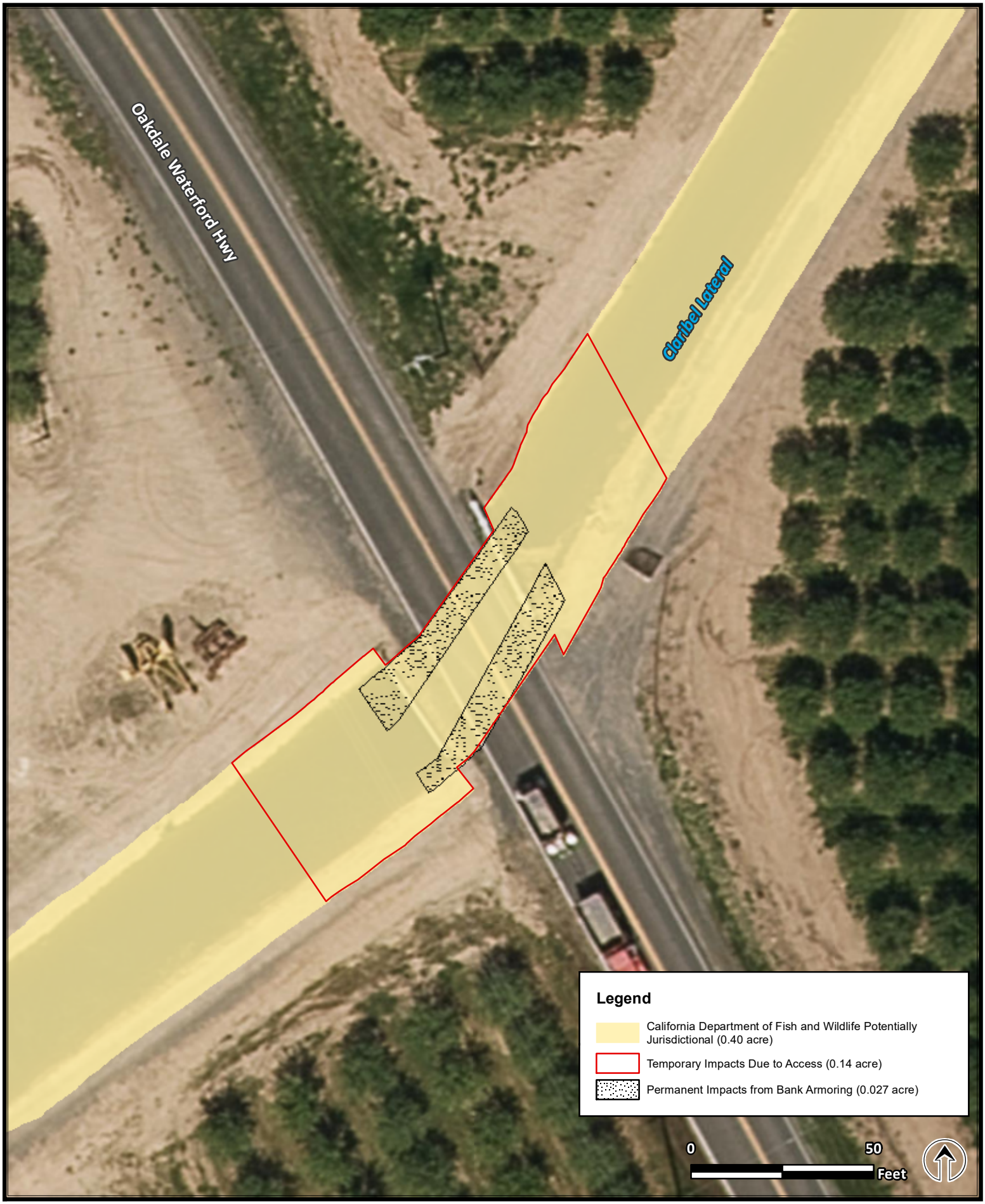
Source: (GPA Consulting, 2022a)

The project would result in minor temporary and permanent impacts on jurisdictional features. Therefore, the project would result in less than significant impacts on jurisdictional features. Avoidance and minimization measures **BIO-1** through **BIO-10** would further reduce impacts on jurisdictional waters and the project would be constructed in compliance with applicable water quality and dust control regulations and conditions within the regulatory permits.



Source: ESRI 2021

FIGURE 7. IMPACTS ON REGIONAL WATER QUALITY CONTROL BOARD POTENTIAL JURISDICTION
Oakdale-Waterford Highway Over Claribel Lateral Bridge Replacement Project



Sources: ESRI 2021

FIGURE 8. IMPACTS ON POTENTIAL CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE JURISDICTION
Oakdale-Waterford Highway Over Claribel Lateral Bridge Replacement Project

d. Would the project 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?

Less Than Significant Impact. The land surrounding the BSA is agriculture use comprised of orchards. According the CDFW's BIOS, there are no essential wildlife connectivity areas in the BSA. It is unlikely the BSA would be used as a migration or travel corridor but may be used for local wildlife movement and foraging.

As discussed in response (a) above, there is potential for one special-status mammal to be in the BSA, the western red bat. There are orchards present within the BSA; therefore, there is potential for this species to be in the BSA. As an agricultural crop, the orchards are regularly maintained and are less desirable for species roosting. While western red bat has potential to roost in BSA, the species does not have potential to roost within the construction area and removal of orchards are not expected. Therefore, the project would result in less than significant impacts on western red bats.

There is potential for migratory birds to be nesting and foraging in the BSA and the construction area during construction. During the biological survey bird species were observed foraging in or flying over the BSA, including western kingbird (*Tyrannus verticalis*), killdeer (*Charadrius vociferus*), black phoebe (*Sayornis nigricans*), and cliff swallow (*Petrochelidon pyrrhonta*).

Nesting birds could be directly impacted by construction activities if they were to be nesting in vegetation within the construction area. In addition, these species could be indirectly impacted by loss of habitat resulting from vegetation or structure removal. However, no birds were observed nesting on the structure during field surveys and water levels inhibit nesting. Therefore, the project would result in less than significant impacts on migratory wildlife or wildlife nursery sites. Implementation of avoidance and minimization measures **BIO-12** through **BIO-14** would further reduce impacts and the project would comply with the MBTA and California Fish and Game Code.

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. The General Plan Conservation/Open Space Element includes policies to preserve, protect, and enhance open space, agricultural land, and natural resources in Stanislaus County. These policies include identification and protection of natural watersheds, drainage beds, and water recharge areas to achieve recovery of local water and the preservation of natural plant and animal habitat. Applicable policies and consistency determinations within this element are included in **Table 5**.

Table 5 Project Consistency with Applicable Local Policies Governing Natural Resources

Section of Policy Number	Policy/Ordinance	Project Consistency Evaluation
Open Space and Conservation Element		
Policy 3	Areas of sensitive wildlife habitat and plant life (e.g., vernal pools, riparian habitats, flyways, and other waterfowl habitats, etc.) including those habitats and plant species listed by state or federal agencies shall be	*Consistent.* Disturbance of sensitive wildlife habitat would be minimized or avoided through measures **BIO-1** through **BIO-11**.

Section of Policy Number	Policy/Ordinance	Project Consistency Evaluation
	protected from development and/or disturbance.	
Policy 6	Preserve natural vegetation to protect waterways from bank erosion and siltation.	*Consistent*. Existing vegetation would be preserved to the extent feasible, and with the implementation of measure **BIO-8**, all temporarily disturbed areas would be re-contoured to pre-construction conditions.
Policy 29	Habitats of rare and endangered fish and wildlife species, including special status wildlife, and plants shall be protected.	*Consistent.* Disturbance of special status species would be minimized or avoided through measures **BIO-1** through **BIO-11**.

The project would not be anticipated to conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Therefore, the project would result in no impact on local policies or ordinances protecting biological resources.

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan (HCP); Natural Community Conservation Plan; or other approved local, regional, or state HCP?

No Impact. The BSA is not located within the limits of a regional conservation plan such as an HCP or Natural Community Conservation Plan; therefore, the project would result in no impact on provisions of an adopted HCP; Natural Community Conservation Plan; or other approved local, regional, or state HCP.

Avoidance, Minimization, and Mitigation Measures

To avoid and/or minimize potential impacts on jurisdictional waters, the following measures would be implemented:

BIO-1 Work areas would be reduced to the maximum extent feasible.

BIO-2 Pesticides and/or herbicides would not be used as part of the project.

BIO-3 BMPs, such as silt fencing, fiber rolls, and straw bales, would be implemented during construction to minimize dust, dirt, and construction debris from entering the jurisdictional features and/or leaving the construction area.

BIO-4 Appropriate hazardous material best management practices (BMP) would be implemented to reduce the potential for chemical spills or contaminant releases into the jurisdictional features, including any non-stormwater discharge.

BIO-5 All equipment refueling and maintenance would be conducted in the upland staging area, a minimum of 50 feet from Claribel Lateral and its banks. In addition, vehicles and equipment would be checked daily for fluid and fuel leaks, and drip pans would be placed under all equipment that is parked and not in operation. Leaking vehicles or equipment would not be operated until

repaired. All workers would be informed of the importance of preventing spills and the appropriate measures to take should a spill happen.

BIO-6 Stationary equipment such as motors, pumps, generators, compressors, and welders located within 50 feet of Claribel Lateral and its banks would be positioned over drip-pans, including when in operation.

BIO-7 During demolition of the existing bridge, all grindings and asphaltic-concrete waste would be immediately removed offsite or be temporarily stored onsite. If the waste is stored onsite, the waste would be placed on construction grade plastic sheeting, geotextile fabric, or similar impervious material, and would be stored a minimum of 100 feet from Claribel Lateral. On or before the date of project completion, the waste would be transported to an approved disposal site.

BIO-8 Any temporary erosion control implemented during construction would be completed using non-invasive species. At project completion, all temporarily disturbed areas would be re-contoured to pre-construction conditions.

BIO-9 High visibility Environmental Sensitive Area (ESA) protective fencing would be installed around the project limits of Claribel Lateral to prevent construction staff or equipment from encroaching further on jurisdictional waters.

BIO-10 Worker Environmental Awareness Training for biological resources; including jurisdictional areas, sensitive habitat, and special-status species would be given to all personnel working on site. The training would include the sensitivity of the area to anthropogenic activities, legal protection afforded to the biological resources, penalties for violations of federal and state laws, reporting requirements, and project features designed to reduce impacts on the biological resources. This training would be conducted by a qualified biologist.

To avoid and/or minimize potential impacts on the western pond turtle, the following avoidance and minimization measures would be implemented:

BIO-11 If western pond turtles are found, an ESA protective fencing buffer would be installed. The fencing would have a buffer radius of 25 feet around the species of concern, or as directed by a qualified biologist.

To avoid and/or minimize potential impacts on migratory birds and raptors, the following avoidance and minimization measures would be implemented:

BIO-12 Trimming and removal of vegetation would be minimized and performed outside of the nesting season (February 1 to August 31), to the extent feasible.

BIO-13 In the event that trimming or removal of vegetation and/or initial ground disturbance must be conducted during the nesting season, nesting bird surveys would be completed within 500 feet of the construction area (500 feet for raptors and 100 feet for other birds), as feasible, by a qualified biologist no more than 72 hours days prior to trimming or ground disturbance activities. Surveys would be repeated if construction activities are suspended for 14 days or more.

BIO-14 If nesting birds are found within 500 feet of the construction area, appropriate buffers (typically 100 feet for birds and 500 feet for raptors) consisting of orange flagging/fencing or similar would be installed and maintained until nesting activity has ended, as determined in coordination with the project biologist and regulatory agencies, as appropriate.

4.5 Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the Project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	☒	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☐	☒	☐
c. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

The following discussion incorporates the results of Archaeological Survey Report that was prepared for this project (Duke Cultural Resources Management, LLC, 2022).

Regulatory Setting

State Regulations

CEQA Section 15064.5

Under CEQA, Title 14, California Code of Regulations (CCR) Section 15064.5(a)(3), a resource is considered historically significant if it meets one of the following four criteria:

- It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage
- It is associated with the lives of persons important in our past
- It embodies the distinctive characteristics of a type, period, region, or method of installation, or represents the work of an important creative individual, or possesses high artistic values; or
- It has yielded, or may be likely to yield, information important in prehistory or history.

CEQA requires public agencies and private interests to identify the potential adverse impacts or environmental consequences of their project to any object or site of significance with respect to history. CEQA also provides protection for paleontological remains.

California Public Resources Code (PRC)

PRC 21083.2, 5097.5, 30244, and 21084.1

According to PRC 21083.2 (a), if archaeological resources are determined to be significant, then the impacts on that resource should be addressed. PRC 5097.5 prohibits the excavation and/or the removal of a "vertebrate paleontological site…or any other archaeological, paleontological, or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands." PRC 30244 requires reasonable mitigation of adverse impacts on paleontological resources resulting from development on public land.

PRC 21084.1 gives the lead agency power to determine that a resource is a historical resource, even if the resource is not listed or eligible for listing in the California Register of Historical Resources or a local register of historical places. In addition, the lead agency can also determine that a resource is a historical resource, even if it is not deemed significant in a historical resource survey.

Native American Heritage Act (PRC 5097.9)

The Native American Heritage Act, passed by California in 1976, established the Native American Heritage Commission (NAHC) for protecting Native American religious values on state property. The NAHC not only protects the heritage of Native Americans, but also ensures their participation in matters concerning heritage sites. The commission's duty is to assist both federal and state agencies in protecting Native American sacred places and provide recommendations concerning Native American heritage in accordance with environmental law and policy. The act protects burials from disturbance, vandalism, and accidental destruction. It also stipulates which specific procedures laid out in the California Health and Safety Code (HSC) must be implemented if a Native American burial is uncovered during project construction or archaeological data recovery.

Assembly Bill 52 (PRC 21080.1, 21080.3.1, and 21080.3.2)

As of July 1, 2015, AB 52 requires public agencies to consult with California Native American tribes identified by the NAHC for the purpose of mitigating impacts on tribal cultural resources. The specific directives of the bill are as follows:

"Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section (PRC Section 21080.1(d))."

California Health and Safety Code Section 7050.5

The State of California HSC Section 7050.5 requires that if human remains are discovered during ground disturbing activities, the County Coroner must be notified, and no further disturbance is authorized to occur until the County Coroner has made a determination of origin and disposition of the remains. If the human remains are determined to be prehistoric, the coroner must notify the NAHC, who would determine and notify a Most Likely Descendant (MLD). The MLD then inspects the site and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

Local Regulations

Stanislaus County General Plan

The General Plan's Conservation/Open Space Element outlines the following goals and policies regarding cultural resources (Stanislaus County, 2015):

- Goal Eight: Preserve areas of national, state, regional, and local historical importance.
    - Policy Twenty-Four: The County will support the preservation of Stanislaus County's cultural legacy of archeological, historical, and paleontological resources for future generations.
    - Policy Twenty-Five: "Qualified Historical Buildings" as defined by the State Building Code shall be preserved.

Environmental Setting

The project area is in a rural part of Stanislaus County, directly adjacent to land designated for agricultural use. The Area of Potential Effects (APE) is defined under Section 106 of the National Historic Preservation Act (36 CFR Part 800) as the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The land within the APE consists of the bridge, a portion of the OID Claribel Lateral, portions of Oakdale-Waterford Highway, and portions of the adjacent orchards at all four corners. Where the APE cuts across a parcel, only that portion of the parcel is included in the APE.

Discussion of Checklist Responses

a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?

Less Than Significant Impact. A record search of the APE and a surrounding 1-mile radius was conducted at the Central California Information Center (CCIC) to identify any historic properties or previous cultural resources studies on file. The records search identified 13 cultural resources within a 1-mile search radius. Three of the resources are located within the APE, including the Oakdale-Waterford Bridge, an abandoned portion of the Southern Pacific Railroad (formerly the Stockton and Visalia Railroad), and the OID.

One cultural resource, the OID, is associated with the continued expansion of agricultural development in the early 20th century and the development of communities in Stanislaus County, including Oakdale. Therefore, for the purposes of this project only, the OID is assumed to be eligible for the NRHP at the local level of significance under NRHP Criterion A, with a period of potential significance from 1909 to 1913.

The integrity of the OID immediate setting, design, materials, workmanship, and feeling have been lost due to a number of improvements over the years. Both the broad and immediate setting have been diminished as a result. Alterations beyond those required by maintenance have occurred within the segment as a direct result of the construction of the Oakdale-Waterford Highway and bridge in 1920, and the removal of the SPRR tracks and rail spur circa 1995 and 1998, respectively. Similarly, the segment does not convey the feeling and association of a specific time period, as it has been substantially altered over time since initial construction (GPA Consulting, 2022). The segment of the Claribel Lateral within the APE does not appear eligible for the NRHP as a contributor to the assumed eligible OID, of which it is a part. The segment of lateral has been substantially altered and upgraded. Thus, it lacks integrity from the 1909 to 1913 period of significance established for the OID.

Construction activities would include demolition of the existing bridge, grading, and construction of the new bridge. The existing bridge foundations would be removed in their entirety. This would include excavation below the existing canal bottom at the locations of the existing foundations. The proposed new bridge would be a double cell reinforced concrete box culvert with a solid concrete invert slab approximately 12 inches thick. There would likely be 18 inches of additional excavation below this invert slab. The segment within the APE has already been substantially altered and would not be considered a

contributing segment due to a lack of integrity. Therefore, it is anticipated that no aspect of the undertaking would alter, directly or indirectly, any of the characteristics of the historic property that qualify it for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. However, no archaeological resources are expected. Therefore, the project would result in less than significant impact on historical resources.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

Less Than Significant Impact. As discussed above in response (a), there are no known eligible cultural resources in the project vicinity. A pedestrian reconnaissance field survey was conducted to examine the APE for evidence of cultural resources. The survey included the entire APE. Disturbances within the APE primarily include the Claribel Lateral, Oakdale-Waterford Highway Bridge, and the previous location of Stockton and Visalia Railroad with modern refuse along the banks of the canal. The topography of the APE is generally level with the exception of the canal banks. Sediment in the APE consists of light tannish-brown sandy loam. No newly identified cultural resources are present within the APE.

Due to the nature of previous ground disturbances within the APE for the construction of the bridge and existing road, along with the research and survey results, there is a low potential to adversely affect unknown, potentially intact buried archaeological deposits that might be eligible for NRHP listing. However, no human remains are expected. Therefore, the project would result in less than significant impacts on archaeological resources. Avoidance and minimization measure **CUL-1** would be implemented to further reduce impacts if previously unidentified resources are uncovered.

c. Would the project disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant Impact. The project area is located in a rural part of Stanislaus County that is not near or within a formal cemetery. In addition, the land surrounding and within the project area has already been disturbed. However, construction of the project would include ground-disturbing activities that could unearth previously undiscovered human remains interred outside of a formal cemetery, should they be present in the project limits. However, no human remains are expected. Therefore, the project would result in less than significant impacts on human remains. Measure **CUL-2** would be implemented if any human remains are discovered during construction.

Avoidance, Minimization, and/or Mitigation Measures

To avoid and/or minimize potential impacts on Cultural Resources, the following measures would be implemented:

CUL-1: If previously unidentified cultural materials are encountered or unearthed during construction, work would be halted in that area until a qualified archaeologist can assess the nature and significance of the find. Additional surveys would be required if the project limits change to include areas not previously surveyed.

CUL-2: In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, steps would be taken in compliance with the CCR Section 15064.5. All construction activities would cease, and the County Coroner

would be contacted if any human remains are discovered, in accordance with 14 CCR Section 15064.5(e) If the coroner determines that the human remains are of Native American origin, the NAHC would be notified to determine the MLD for the area. The MLD would make recommendations for the arrangements for the human remains per PRC Section 5097.98.

4.6 Energy

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☒	☐
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

Regulatory Setting

State Regulations

Executive Order S-01-07 (January 18, 2007)

This order sets forth the low carbon fuel standard (LCFS) for California. Under this EO, the carbon intensity of California's transportation fuels was to be reduced by at least 10 percent by the year 2020. ARB re-adopted the LCFS regulation in September 2015, and the changes went into effect on January 1, 2016. In 2018, the EO was extended to a 20 percent decrease in the carbon intensity of California's transportation fuels by the year 2030. The program establishes a strong framework to promote the low-carbon fuel adoption necessary to achieve the Governor's 2030 and 2050 greenhouse gas (GHG) reduction goals (University of California, Berkeley Law, 2019).

Senate Bill 375, Chapter 728, 2008, Sustainable Communities and Climate Protection

This bill requires CARB to set regional emissions reduction targets for passenger vehicles. The Metropolitan Planning Organization (MPO) for each region must then develop a "Sustainable Communities Strategy" (SCS) that integrates transportation, land-use, and housing policies to plan how it will achieve the emissions target for its region. Stanislaus County's has set a regional goal to reduce GHG emissions by 16 percent by 2035 (California Air Resources Board, 2018).

In-Use Off-Road Diesel Vehicle Regulations

This regulation limits vehicle idling to no more than five consecutive minutes and requires equipment to be reported to CARB and labeled.

California Long-Term Energy Efficiency Strategic Plan

This plan provides a roadmap for achieving maximum energy savings across all major sectors in California and identifies strategies for achieving goals for energy.

Local Regulations

Stanislaus County General Plan

The General Plan's Conservation/Open Space Element outlines the following goals and policies regarding energy resources (Stanislaus County, 2015):

- Goal Eleven: Conserve resources through promotion of waste reduction, reuse, recycling, composting, ride-sharing programs, and alternative energy sources such as mini-hydroelectric plants, gas and oil exploration, and transformation facilities such as waste-to-energy plants.
    - Policy Thirty-One: New construction by the County shall meet or exceed code requirements for energy conservation.

Environmental Setting

The project area includes an existing transportation facility. The project area does not currently require energy resources to operate.

Discussion of Checklist Responses

a. Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less Than Significant Impact. During the nine to 12-month construction period, operation of construction vehicles, worker vehicles, and equipment (e.g., generators) would require the use of fuel (gasoline and diesel) and electricity energy consumption during construction would be temporary. Operation of the project would not require an ongoing or permanent commitment of energy resources. The project would be temporary and would result in a negligible increase in regional energy consumption. Compliance with the previously mentioned policies and regulations would allow the project to use energy efficiently and only when necessary. Therefore, the project would result in a less than significant impact on energy resources.

b. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact. Stanislaus County's goal is to reduce regional GHG emissions by 16 percent by 2035. As discussed in response (a) above, fuel consumption from construction vehicles and equipment would be temporary and would result in a negligible increase in regional energy consumption. Once operational, no energy would be required for the project. Compliance with energy standard measures, such as the In-Use Off-Road Diesel Vehicle Regulations, would reduce energy usage during construction. The project would support the County's emission reduction goal through the implementation of energy standard measures. The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Therefore, the project would result in no impact on state or local plans for renewable energy or energy efficiency.

Avoidance, Minimization, and/or Mitigation Measures

The project would result in a less than significant impact on Energy. The project would not require Avoidance, Minimization, and/or Mitigation Measures for Energy.

4.7 Geology and Soils

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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.	☐	☐	☐	☒
ii. Strong seismic ground shaking?	☐	☐	☐	☒
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv. Landslides?	☐	☐	☐	☒
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c. Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the Project and potentially result in an on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☐	☒
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

Regulatory Setting

Federal Regulations

Clean Water Act

Section 402 establishes the National Pollutant Discharge Elimination System (NPDES), a permitting system for the discharges (except for dredge or fill material) of any pollutant into waters of the U.S. The U.S. EPA delegated to the California SWRCB the implementation and administration of the NPDES program in California. The SWRCB established nine RWQCBs. The SWRCB enacts and enforces the federal NPDES program, and all water quality programs and regulations that cross regional boundaries. The nine RWQCBs

enact, administer, and enforce all programs, including NPDES permitting, within their jurisdictional boundaries. Section 402(p) requires permits for discharges of stormwater from industrial, construction, and Municipal Separate Storm Sewer Systems.

State Regulations

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy**.** The main purpose of the act is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. Through the facilitation of seismic retrofitting to strengthen buildings, including historical buildings, against ground shaking, policies and criteria are also intended to provide citizens with increased safety and to minimize the loss of life during and immediately following earthquakes.

Seismic Hazard Mapping Act

The Seismic Hazards Mapping Act was passed in 1990 to address non-surface fault rupture earthquake hazards, including liquefaction and seismically induced landslides. The purpose of Seismic Hazards Mapping Act is to reduce threats to public health and safety and to minimize property damage caused by earthquakes, strong ground shaking, liquefaction, landslides, or other hazards caused by earthquakes. This act requires the State Geologist to delineate various seismic hazard zones, and cities, counties, and other local permitting agencies to regulate certain development projects within these zones. Before a development permit is granted for a site within a seismic hazard zone, a geotechnical investigation must be conducted, and appropriate mitigation measures need to be incorporated into the project's design.

California Building Standards Code

The purpose of the California Building Standards Code is to regulate and control the design, construction, quality of materials, use occupancy, location, and maintenance of all building and structures within its jurisdiction. Title 24 serves as the basis for design and construction of buildings in California. The provisions of the California Building Standards Code apply to the construction, alteration, movement, replacement, and demolition of every building or structure, or any appurtenances connected or attached to such buildings or structures throughout California.

California Geological Survey

The California Geological Survey was created in 1860 and is dedicated to providing scientific products and services about the state's geology, seismology, and mineral resources that affect the health, safety, and business interests of the people of California. Seismic and Geotechnical Hazard Zones include active and potentially active faults identified by the California Geological Survey (formerly the Division of Mines and Geology) under the provisions of the Alquist-Priolo Earthquake Fault Zones Act (California PRC, Division 2, Chapter 7.5). Faults that are also considered active, based on published and unpublished information, and seismically induced liquefaction and landslide areas are identified in the Seismic and Geotechnical Hazard Zones Policy Map.

California Administrative Code, Section 4307

In California, paleontological resources are afforded protection by CEQA; California Administrative Code, Title 14, Section 4307 et seq.; and PRC 5097.5 protects vertebrate fossil localities situated on public land, including those localities that have produced fossilized footprints or any other paleontological feature.

Local Regulations

Stanislaus County General Plan

The General Plan's Conservation/Open Space Element outline the following goals and policies regarding geology and soils:

- Goal Two: Conserve water resources and protect water quality in the County.
    - Policy Six: Preserve natural vegetation to protect waterways from bank erosion and siltation.
- Goal Five: Reserve, as open space, lands subject to natural disaster in order to minimize loss of life and property of residents of Stanislaus County.
    - Policy Sixteen: Discourage development on lands that are subject to flooding, landslide, faulting, or any natural disaster to minimize loss of life and property.

Chapter 14.14 – Stormwater Management and Discharge Control regulates non-stormwater discharge into the stormwater conveyance system by regulating activities that may result in pollutants entering the system, the following is applicable to this project:

- Section 14.14.120 – Reduction of Pollutants in Stormwater. This ordinance regulates any activity that may result in pollutants entering the stormwater system and identifies set measures. For construction related activities (under subsection B) all applicable federal, state, and local laws, ordinances, or regulations must be complied with, including the current state of California NPDES general permit for stormwater discharges associated with construction activity. Additionally, all construction activities that may contribute to stormwater pollution or contamination must comply with BMP consistent with the California Stormwater Quality Association Best Management Practices Handbooks or equivalent guidelines.

Environmental Setting

Regional Geology

California is divided into 11 geomorphic provinces, each naturally defined by unique geologic and geomorphic characteristics. The project area is situated in the eastern portion of the Great Valley geomorphic province, specifically within the San Joaquin Valley south of the town of Hickman. The Great Valley is defined geologically as an alluvial plain, covering about 20,000 square miles. Surrounding the Great Valley are the Cascades to the north, Sierra Nevada to the east, Tehachapi Mountains to the south, and Coast Ranges to the west (California Water Science Center, 2021).

Locally, the project area is in the Tuolumne River floodplain composed of Holocene-age alluvium generated from sources in the Sierra Nevada and Foothills to the east. The project area is within the Modesto Formation landform, the last major aggradation in the San Joaquin Valley during the late Pleistocene epoch (40,000-20,000 years ago). The Modesto Formation typically consists of discontinuous, lenticular clay and silt lenses interbedded with sand-rich sediments derived from the Sierra Nevada and the Coast Ranges. Buried archaeological deposits are rare for Pleistocene landforms. As such, the potential for encountering buried archaeological deposits is low. Early to middle Holocene landforms have a moderate sensitivity for buried cultural resources (Duke Cultural Resources Management, LLC, 2022).

A single geologic unit is recognized with the project area. Pleistocene non-marine colluvial deposits are abundant within the San Joaquin Valley with younger Quaternary non-marine deposits located within drainages and the valley floor. Pleistocene non-marine colluvial deposits are active and recently active

colluvium on hillsides but includes inactive accumulations of colluvium that might be as old as late Pleistocene. Sediments contain angular rock fragments, derived from disaggregation of underlying bedrock (Duke Cultural Resources Management, LLC, 2022).

Topography

The topography within the project area and the surrounding area is generally flat with no notable landforms. The elevation of the project is approximately 190 feet above mean sea level.

Soil Characteristics

According to NRCS Custom Soil Resource Report conducted for the project area, there are two soil units mapped within the project area: Madera Sandy Loam, 0 to 2 Percent Slopes, and Snelling Sandy Loam, 0 to 3 Percent Slopes (Natural Resources Conservation Service, 2019). Each soil unit is described below.

Madera Sandy Loam, 0 to 2 Percent Slopes

Madera Sandy Loam, 0 to 2 Percent Slopes is comprised of alluvium from granite. This soil unit has a very low capacity to transmit water with a water table depth of over 80 inches. This unit is comprised of sandy loam for the first 20 inches, clay from 20 to 30 inches, hardened from 30 to 36 inches, and coarse sandy loam and clay loam below 36 inches.

Snelling Sandy Loam, 0 to 3 Percent Slopes

Snelling Sandy Loam, 0 to 3 Percent Slopes is comprised of alluvium from granite. This soil unit has a moderate capacity to transmit water with a water table depth of more than 80 inches. This unit is comprised of sandy loam for the first 20 inches, sandy clay loam from 20 to 56 inches, and sandy loam below 56 inches.

Discussion of Checklist Responses

a. Would the project 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?

No Impact. The project is not within an Alquist-Priolo Earthquake Zone and there are no active faults within the vicinity of the project area. The nearest fault zone is the Melones Fault Zone located approximately 18 miles northeast of the project area (California Department of Conservation, 2015). Therefore, the project would result in no impact related to the rupture of a known earthquake fault.

ii) Strong Seismic Groundshaking?

No Impact. The project area is not located within or adjacent to an active fault zone. The project would be designed to meet current seismic standards and would not increase exposure to existing hazards in the project area. In addition, the construction of the project would not increase the chances of seismic ground shaking. Therefore, the project would result in no impact related to seismic ground shaking**.**

iii) Seismic-related Ground Failure, including liquefaction?

No Impact. Soil liquefaction occurs when a saturated or partially saturated soil substantially loses strength and stiffness in response to an applied stress, usually earthquake shaking or other sudden change in stress condition, causing it to behave like a liquid. Other types of ground failure resulting from seismic activities include collapsible soils, subsidence (the gradual caving in or sinking of an area of land), landslides, and lateral spreading (landslides that commonly form on gentle slopes and that have rapid fluid-like flow movement). According to the Stanislaus County General Plan Safety Element, the area west of I-5 in Stanislaus County is susceptible to landslide (Stanislaus County, 2016). The project area is located approximately 30 miles northeast of I-5 and is not in an area susceptible to landslides. In addition, the topography within the project area and surrounding area is generally flat with no notable landforms. Therefore, the project would have no impact related to seismic-related ground failure.

iv) Landslides, Including Seismically Induced Landslides?

No Impact. See discussion in response a(iii) above.

b. Would the project result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. According to the NRCS Web Soil Survey, the soil textures in the project area have a low to high susceptibility to erosion (Natural Resources Conservation Service, 2019). The project would comply with the requirements of the RWQCB NPDES permits, as well as the California Fish and Game Code Section 1602 Streambed Alteration Agreement, which require implementation of protective measures to minimize erosion. Water would also be used for dust control to reduce erosion during construction. Therefore, the project would result in a less than significant impact on soil erosion. Avoidance and minimization measure **BIO-3** would be implemented to further minimize erosion in the project area.

c. Would the project 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. As discussed above in response a(iii), the project area is not located near or within a liquefaction or landslide zone. Therefore, there would be no impact.

d. Would the project be located on expansive soil, creating substantial direct or indirect risks to life or property?

Less Than Significant Impact. Expansive soils are prone to large volume changes (swelling and shrinking) that are directly related to changes in water content; with higher moisture levels, the soils swell, and with lower moisture levels, the soils shrink. According to the NRCS Web Soil Survey, the soil textures in the project area have low to moderate shrink and swell characteristics (Natural Resources Conservation Service, 2019). The soil textures in the project area would not cause damage to buildings, roads, or other structures. Therefore, the project would result in a less than significant impact related to expansive soils.

e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. The project would not include any uses, features, or facilities that would generate wastewater; it would not include any septic or wastewater disposal systems. Therefore, the project would result in no impact related to the use of septic tanks or wastewater disposal systems.

f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact. Paleontological resources include fossils, which are the preserved remains or traces of animals, plants, and other organisms from prehistoric time (i.e., the period before written records). Fossils and traces of fossils are preserved in sedimentary rock units (formed by the deposition of material at the Earth's surface); and are more likely to be preserved subsurface, where they have not been damaged or destroyed by previous ground disturbance or natural causes, such as erosion by wind or water. The rock types underlying the project area are from the Pleistocene-Holocene period (California Department of Conservation, n.d.). This period of rock formation is considered young and would be unlikely to carry paleontological resources. In addition, the project area has been previously disturbed. Therefore, the project would result in a less than significant impact on paleontological resources or unique geological features.

Avoidance, Minimization, and/or Mitigation Measures

The project would result in a less than significant impact on Geology and Soils. The project would not require Avoidance, Minimization, and/or Mitigation Measures for Geology and Soils.

4.8 Greenhouse Gas Emissions

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the Project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Regulatory Setting

State Regulations

Assembly Bill 1493

AB 1493 (Pavley) of 2002 (Health and Safety Code Sections 42823 and 43018.5) requires the ARB to develop and adopt the nation's first GHG emission standards for automobiles. The regulation declared in AB 1493 that global warming is a matter of increasing concern for public health and the environment. In 2004, the State of California submitted a request for a waiver from federal clean air regulations, as the State is authorized to do under the FCAA, to allow the State to require reduced tailpipe emissions of CO_2. In June 2009, the U.S. EPA granted California's waiver request, enabling the State to enforce its GHG emissions standards for new motor vehicles beginning with the current model year.

A national policy aimed at both increasing fuel economy and reducing GHG pollution for all new cars and trucks sold in the U.S. was implemented following the waiver request. The new standards covered model years 2012 to 2016 and would raise passenger vehicle fuel economy to a fleet average of 35.5 miles per gallon by 2016. CARB extended this ruling with a goal of an annual rate of improvement between three to six percent for the years 2017-2025.

Assembly Bill 32 – California Global Warming Solutions Act of 2006

The Global Warming Solutions Act of 2006 sets the same overall GHG emissions reduction goals outlined in Executive Order S-3-05 while further mandating that the ARB create a plan that includes market mechanisms and implements rules to achieve "real, quantifiable, cost-effective reductions of GHG." The AB 32 Climate Change Scoping Plan (Scoping Plan) was adopted by the ARB December 12, 2008. In August 2011, the initial Scoping Plan was re-approved by the ARB in order to satisfy environmental review requirements. Governor's EO S-20-06 further directs state agencies to begin implementing AB 32, including the recommendations made by the state's Climate Action Team.

Executive Order S-3-05 (June 1, 2005)

The goal of this Executive Order (EO) is to reduce California's GHG emissions to 1) 2000 levels by 2010; 2) 1990 levels by 2020; and 3) 80 percent below 1990 levels by 2050. In 2006, this goal was further reinforced with the passage of AB 32. This EO also intended that that the statewide GHG emissions limit continue in existence and be used to maintain and continue reductions in emissions of GHGs beyond 2020 (Health

and Safety Code Section 38551(b)). The law requires CARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions.

Senate Bill 391 -Chapter 585, 2009 California Transportation Plan

Senate Bill (SB) 391 bill requires the state's long-range transportation plan to meet California's climate change goals under AB 32.

Executive Order S-6-06

EO S-6-06, signed on April 25, 2006, established two primary goals related to the use of biofuels within California, including (1) by 2010, 20 percent of its biofuels need to be produced within California; increasing to 40 percent by 2020 and 75 percent by 2050; and (2) by 2010, 20 percent of the renewable electricity should be generated from biomass resources within the state, maintaining this level through 2020.

Senate Bill 97

SB 97 required the Governor's Office of Planning and Research (OPR) to develop amendments to the State CEQA Guidelines for addressing GHG emissions. The amendments became effective on March 18, 2010. AB 1493—Pavley Rules (2002, amendments 2009)/Advanced Clean Cars (2011): Known as Pavley I, the standards set forth in AB 1493 were the nation's first GHG standards for automobiles. AB 1493 required the ARB to adopt vehicle standards that would lower GHG emissions from new light-duty autos to the maximum extent feasible beginning in 2009. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009 model year. In June 2009, the U.S. EPA administrator granted a FCAA waiver of preemption to California. This waiver allowed California to implement its own GHG emission standards for motor vehicles beginning with model year 2009. Additional strengthening of the Pavley standards (referred to previously as Pavley II, now referred to as the Advanced Clean Cars measure) has been proposed for vehicles built during model years 2017 through 2020. Together, the two standards were expected to increase average fuel economy to roughly 43 miles per gallon by 2020 and reduce GHG emissions from the transportation sector in California by approximately 14 percent.

Senate Bill 375, Chapter 728, 2008, Sustainable Communities and Climate Protection

SB 375 requires the CARB to set regional emissions reduction targets from passenger vehicles. The MPO for each region must then develop a SCS that integrates transportation, land use, and housing policies to plan for the achievement of the emissions target for their region.

Assembly Bill 32 Climate Change Scoping Plan

In October 2008, ARB published its Scoping Plan, which is the State's plan to achieve GHG reductions in California required by AB 32. The Scoping Plan contains the main strategies California will implement to achieve reduction of GHG emissions. The initial Scoping Plan was first approved by ARB on December 11, 2008, and is updated every five years. The first update of the Scoping Plan was approved by the ARB on May 22, 2014, which looked past 2020 to set mid-term goals (2030-2035) on the road to reaching the 2050 goals. Currently, the Scoping plan's goal is to reduce GHG emissions 40 percent below 1990 levels by 2030, and carbon neutrality by 2045.

California Building Code

The California Building Code contains standards that regulate the method of use, properties, performance, or types of materials used in the construction, alteration, improvement, repair, or rehabilitation of a building or other improvement to real property. The California Building Code (CBC) is adopted every three years by the Building Standards Commission (BSC). In the interim, the BSC also adopts annual updates to make necessary mid-term corrections. The CBC standards apply statewide; however, a local jurisdiction may amend a CBC standard if it makes a finding that the amendment is reasonably necessary due to local climatic, geological, or topographical conditions.

Green Building Standards

Green building standards are contained in the California Building Code and regulate the construction of new buildings and improvements. The focus of green building standards is to improve environmental performance. AB 32 increased the urgency around the adoption of green building standards. In the Scoping Plan for the implementation of AB 32, ARB identified energy use as the second largest contributor to California's GHG emissions, constituting roughly 25 percent of all such emissions. The green buildings standards were most recently updated in 2019.

Local Regulations

Stanislaus County General Plan

The General Plan's Agriculture Element and Conservation/Open Space Element outlines the following goals and policies regarding greenhouse gas emissions (Stanislaus County, 2015):

- Goal Three: Protect the natural resources that sustain our agricultural industry.
    - Policy 3.1: The County shall continue to coordinate with the San Joaquin Valley Air Pollution Control District.
    - Policy 3.2: The County shall assist the San Joaquin Valley Air Pollution Control District in implementation of adopted plans and regulations.
- Goal Six: Improve air quality.
    - Policy Eighteen: The County will promote effective communication, cooperation, and coordination among agencies involved in developing and operating local and regional air quality programs.

Environmental Setting

GHGs are gases that trap heat in the atmosphere. The transportation sector (i.e., the movement of people and goods by cars, trucks, trains, ships, airplanes, and other vehicles) accounts for 41 percent of total GHG emissions in California (California Air Resources Board, 2019). The majority of GHGs from transportation are carbon dioxide (CO_2) emissions resulting from the combustion of petroleum-based products, like gasoline, in internal combustion engines (United States Environmental Protection Agency, 2017). The largest sources of transportation-related GHG emissions include passenger cars and light-duty trucks, which account for over half of the emissions from the sector. The sources of GHG emissions within the project area are limited to the internal combustion engine vehicles that use the bridge.

Discussion of Checklist Responses

a. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact. During construction, the use of construction equipment, delivery of construction materials and waste, and worker commutes would contribute to the generation of GHGs. GHG emissions would be largely from exhaust from vehicles. Compliance with the In-Use Off-Road Diesel Vehicle Regulation would reduce emissions during constructions. The contribution of construction GHG emissions to climate change would be minimal since construction would be temporary. Operation of the project is not expected to increase GHG emissions because it would maintain the same number of through lanes (one in each direction) and would not increase capacity or result in additional cars on the roadway. As such, operation of the project would not result in significant impacts related to GHG emissions. Therefore, the project would result in a less than significant impact on project generated GHGs.

b. Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact. While the project would result in GHG emissions during construction, the project would not result in an increase of operational GHG emissions. The project would not conflict with any policies from the current Scoping Plan or for regionally significant projects, the Stanislaus Council of Governments 2014 Regional Transportation Plan/SCS that are applicable to the project. Implementation of best management practices, such as the In-Use Off-Road Diesel Vehicle Regulation, would reduce tailpipe emissions in concurrence with AB 1493. The reduction of tailpipe emissions would reduce GHG emissions. Therefore, the project would result in a less than significant impact related to applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of GHGs.

Avoidance, Minimization, and/or Mitigation Measures

The project would result in a less than significant impact on Greenhouse Gas Emissions. The project would not require Avoidance, Minimization, and/or Mitigation Measures for Greenhouse Gas Emissions.

4.9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the Project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d. Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard or excessive noise for people residing or working in the Project Area?	☐	☐	☐	☒
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☒	☐

The following discussion incorporates the results of the Hazardous Waste Initial Site Assessment (ISA) that was prepared for this project (Sierra Geotech, DBE, Inc., 2023).

Regulatory Setting

Federal Regulations

Resource Conservation and Recovery Act (RCRA)

This law was created in 1976 to govern the disposal of solid waste and hazardous waste. RCRA gives U.S. EPA the authority to control hazardous waste, creating a "cradle-to-grave" waste management system. The goal is to reduce environmental impacts due to improper disposal of waste. States implement non-hazardous waste programs and issue permits in compliance with U.S. EPA and state regulations. U.S. EPA enforces regulations for hazardous waste and implements hazardous waste permits.

State Regulations

Hazardous Waste and Substances Site List – Site Cleanup (Cortese List)

The Cortese List is a planning document used by the state, local agencies, and developers to comply with the CEQA requirements by providing information about the location of hazardous materials release sites. Government Code section 65962.5 requires the California Environmental Protection Agency to develop at least annually an updated Cortese List. California Department of Toxic Substances Control (DTSC) is responsible for a portion of the information contained in the Cortese List. Other State and local government agencies are required to provide additional hazardous material release information for the Cortese List.

California Hazardous Waste Control Law

The Hazardous Waste Control Law (HWCL) is the primary hazardous waste statute in the State of California. HWCL implements RCRA as a "cradle-to-grave" waste management system in the state. The statute states that generators have the primary duty to determine whether their wastes are hazardous and to ensure their proper management. HWCL also establishes criteria for the reuse and recycling of hazardous wastes. The law exceeds federal requirements by mandating source reduction planning, and a much broader requirement for permitting facilities that treat hazardous waste. It also regulates a number of types of wastes and waste management activities that are not covered by RCRA.

California Code of Regulations

Most state and federal regulations and requirements that apply to generators of hazardous waste are spelled out in the CCR, Title 22, Division 4.5. Title 22 contains detailed compliance requirements for hazardous waste generators and transporters, and treatment, storage, and disposal facilities. Because California is a fully authorized state according to RCRA, most RCRA regulations have been duplicated and integrated into Title 22. However, because the DTSC regulates hazardous waste more stringently than the EPA, Title 22 contains fewer exemptions and exclusions than 40 CFR 260.

Local Regulations

Stanislaus County General Plan

The General Plan's Safety Element outlines the following goals and policies regarding hazards (Stanislaus County, 2015):

- Goal One: Prevent loss of life and reduce property damage as a result of natural disasters.
    - Policy One: The County will adopt (and implement as necessary) plans inclusive of the Multi-Jurisdictional Hazard Mitigation Plan, to minimize the impacts of a natural and man-made disasters.
    - Policy Five: Stanislaus County shall support efforts to identify and rehabilitate structures that are not earthquake resistant.
- Goal Two: Minimize the effects of hazardous conditions that might cause loss of life and property.
    - Policy Six: All new development shall be designed to reduce safety and health hazards.
    - Policy Thirteen: The Department of Environmental Resources shall continue to coordinate efforts to identify locations of hazardous materials and prepare and implement plans for management of spilled hazardous materials as required.

- Policy Fifteen: The County will support the Federal Emergency Management Agency (FEMA) Flood Insurance Program so that residents who qualify may purchase such protection.

Environmental Setting

Contaminated Sites

To assess existing conditions in the project area, a field inspection was performed in November 2021. The field inspection consisted of surveying the project corridor on foot and visually assessing the project area and adjacent properties from public ROW. At the time of the site visit, no specific indicators of releases, spills, or other acute indications of likely Recognized Environmental Conditions (REC) were observed (Sierra Geotech, DBE, Inc., 2023).

Following the site investigation, a database search report was prepared by Environmental Data Resources, Inc. A regulatory records search of this nature was based on information published by federal, state, and local regulatory agencies and is used to determine whether the project area or nearby properties are listed as having a past or present record of actual or potential environmental impacts from hazardous substances or materials. Regulatory listings include only those facilities that are known to the regulatory agencies at the time of publication (Sierra Geotech, DBE, Inc., 2023).

The database search report determined there were no underground storage tanks (UST) sites or reported hazardous materials spills or releases within the project area or immediately adjacent properties. However, there were three UST sites found in the database search within 0.5 mile of the project area. No indications of spills, releases, violations, or corrective actions were documented in the database in connection with these sites. An additional Leaking Underground Storage Tank (LUST) site was identified outside of the project area, within 0.5 mile. This site has been listed as “Completed/Case Closed” and is unlikely to pose an environmental concern to the proposed project (Sierra Geotech, DBE, Inc., 2023).

Based on the government records search, site investigation, aerial photograph review, and the historical stewardship of the project corridor two RECs were identified. The first REC is associated with the prolonged use of agricultural chemicals in the area surrounding the project area. The historical record determined that a portion of the project area and surrounding properties have been subject to intensive agricultural uses since at least the early 1900s. Historical agricultural practices employed in the region during this period include the use various products containing nitrate, chlordane, DDD/DDE/DDT, endrin, other insecticides, pesticides, fumigants, herbicides, pentachlorophenol, toxaphene, and other contaminants. No specific evidence of documented historical releases of said contaminants was discovered. The second REC is the potential for lead being present in soils at hazardous levels due to the proximity of the project area to the Oakdale-Waterford Highway (Sierra Geotech, DBE, Inc., 2023). Oakdale-Waterford Highway has been a thoroughfare in the region during periods in which lead was an ingredient in gasoline. Therefore, there is potential for aerially deposited lead to be present in soils at hazardous levels.

Airports

There are two public use airports in the county: the Modesto City-Co-Harry Sham Field Airport located approximately 13 miles southwest from the project area, and the Oakdale Airport located approximately six miles northeast from the project area.

Discussion of Checklist Responses

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant Impact. Materials used, stored, or disposed of during project construction could present a hazard to construction workers, the public, or the environment. During construction, vehicles and equipment would contain or require the temporary use of potentially hazardous substances, such as fuels, lubricating oils, and hydraulic fluid. Underground utilities in the project area could present a hazard if unidentified during excavation. However, hazardous material is not anticipated to be encountered. Following construction, the project would not create any hazard to the public. Therefore, the project would result in a less than significant impact related to the transport, use, and disposal of hazardous materials. In addition, to further reduce impacts, measure **HAZ-1** would be implemented to ensure utility owners mark the locations of underground transmission lines and facilities. Measures **HAZ-2** and **HAZ-3** would be implemented to avoid and minimize impacts on any additional hazards during construction. Measure **HAZ-4** would be implemented to screen for aerially deposited lead within the project area.

b. Would the project 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 Impacts. See discussion in response a) above. Additionally, if soil must be removed from the project and the results of the screening-level soils aerially deposited lead assessment identifies hazardous levels of lead in the soil to be exported, the Contractor would complete a Lead Compliance Plan to address and identify and comply with appropriate soil reuse or disposal requirements.

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. No schools are located within 0.25 mile of the project area. The closest school to the project is Milnes Elementary School, located 5.7 miles southwest of the project area. Therefore, the project would result in no impact related to hazardous emissions or handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.

d. Would the project 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?

No Impact. Government Code section 65962.5 requires the California Environmental Protection Agency to develop an update the Cortese List which contains all hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code. According to the database search, there are three UST sites within 0.25 mile of the project area. Two of these USTs are located at an elevation higher than the project area and would potentially result in environmental impacts if a leak would occur. However, indications in the database suggest these UST sites are no longer operative and the cases have been closed. These sites could pose potential environmental harm if their contents were spilled or released. Spills would potentially reach groundwater and could impact water quality. However, since these sites are no longer operative, spills are not anticipated. In addition, the UST sites are located outside of the project area and not on the Cortese List. There is one LUST site within 0.5-mile of the project area

that is listed on the Cortese List. The LUST site is closed and would not impact the project area (Sierra Geotech, DBE, Inc., 2023). Therefore, the project would result in no impact related to hazardous waste sites.

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 area is not located within two miles of any public or private airport or airstrip. The Oakdale Airport located approximately six miles northeast of the project area. The project would not conflict with any airport land use plan or operation of nearby airports and would not pose any safety hazard to people working in the project area. Therefore, the project would result in no impact related to an airport use plan.

f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. Disaster routes are used during times of crisis to save lives, protect property, and minimize impact to the environment. During a disaster, pre-identified disaster routes have priority for clearing, repairing, and restoration over all over roads. The County developed an Emergency Response Plan to address planned response to extraordinary emergency situations. The Emergency Response does not identify Oakdale Waterford Highway as part of an evacuation route (Stanislaus County, 2021).

Construction of the project is anticipated to last between nine and 12 months. For the duration of construction, the bridge would be closed, and traffic would be detoured around the project area using existing roads (see **Figure 4**, Detour Map). Vehicles traveling south on Oakdale-Waterford Highway would likely be diverted to travel south on Albers Road and east on Claribel Road for a detour of approximately three miles. Vehicles traveling north on Oakdale-Waterford Highway would travel the same route in reverse. Temporary signage would be placed along the route to provide wayfinding for vehicles. This detour would not substantially affect emergency response times. Full access to the project area would be restored following construction activities. Therefore, the project would have a less than significant impact on emergency response and evacuation plans.

g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less Than Significant Impact. According to the General Plan's Safety Element, wildland fires are generally limited to the foothills located along the Diablo Range and Sierra Nevada Foothills (Stanislaus County, 2016). The project is located approximately 40 miles from the Diablo Range and 35 miles from the Sierra Nevada Foothills. Therefore, the project would result in no impact related to wildland fires.

Avoidance, Minimization, and/or Mitigation Measures

To avoid and/or minimize potential impacts on Hazardous Materials, the following measures would be implemented:

HAZ-1 The Underground Service Alert of Northern California would be notified by calling 811 at least two working days prior to subsurface excavation to ensure that utility owners mark the locations of underground transmission lines and facilities.

HAZ-2 A site-specific Health and Safety Plan consistent with local requirements would be prepared.

HAZ-3 For any previously unknown hazardous waste/material encountered during construction, the procedures outlined in the Caltrans Unknown Hazards Procedures would be followed.

HAZ-4 A preliminary investigation and screening for aerially deposited lead within the corridor would be conducted.

4.10 Hydrology and Water Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the Project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge, such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
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 that would:	☐	☐	☒	☐
i. Result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
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	☐	☐	☒	☐
iv. Impede or redirect flood flows?	☐	☐	☒	☐
d. In flood hazard, tsunami, or seiche zones, rise release of pollutants due to project inundation?	☐	☐	☒	☐
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

The following discussion incorporates the results of the Water Quality Technical Memorandum that were prepared for this project (GPA Consulting, 2022c).

Regulatory Setting

Federal Regulations

Clean Water Act

Section 402 establishes the NPDES, a permitting system for the discharges (except for dredge or fill material) of any pollutant into waters of the U.S. The U.S. EPA delegated to the California SWRCB the implementation and administration of the NPDES program in California. The SWRCB established nine RWQCBs. The SWRCB enacts and enforces the NPDES program and all water quality programs and regulations that cross regional boundaries. The nine RWQCBs enact, administer, and enforce all programs,

including NPDES permitting, within their jurisdictional boundaries. Section 402(p) requires permits for discharges of stormwater from industrial, construction, and Municipal Separate Storm Sewer Systems.

State Regulations

Porter Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control 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. The act predates the CWA and regulates discharges to waters of the state. Waters of the state include groundwater and surface waters not considered waters of the U.S. Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements and may be required even when the discharge is already permitted or exempt under the CWA.

Water Quality Control Plan for the Central Valley Basin

Section 13240 of the Porter-Cologne Act requires each RWQCB to formulate and adopt water quality control plans, or basin plans, for all areas within its respective region. The project is located within the San Joaquin River Basin, which is under the jurisdiction of the Central Valley RWQCB Office.

The Water Quality Control Plan for the Sacramento River Basin and San Joaquin River Basin Fifth Edition (Basin Plan) lists the beneficial uses of surface waters and ground waters in the San Joaquin River Basin (Central Valley Regional Water Quality Control Board, 2018). Beneficial uses generally include, but are not limited to, domestic, municipal, agricultural, and industrial supply, power generation, recreation, aesthetic enjoyment, navigation, and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves. The Basin Plan also includes water quality objectives, which are the limits or levels of water quality constituents or characteristics that are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area.

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act consists of three bills signed by California Governor Edmund G. Brown Jr. in 2014 that allows local agencies to customize groundwater sustainability plans to suit the economic and environmental needs of their region. Under this legislation, local and regional authorities have developed Groundwater Sustainability Agencies (GSAs) that oversee the preparation and implementation of local Groundwater Sustainability Plans (University of California Davis, Division of Agriculture and Natural Resources, 2019).

Local Regulations

Stanislaus County General Plan

The General Plan's Conservation/Open Space Element outlines the following goals and policies regarding hydrology and water quality:

- Goal Two: Conserve water resources and protect water quality in the County
    - Policy Six: Preserve natural vegetation to protect waterways from bank erosion and siltation.

Stanislaus County Municipal Code

The Stanislaus County Municipal Code (County's Municipal Code) includes County ordinance concerning water quality and identifies regulated activities as they relate to water quality (Stanislaus County, 2020). Chapter 14.14 – Stormwater Management and Discharge Control regulates non-stormwater discharge into the stormwater conveyance system by regulating activities that may result in pollutants entering the system, the following is applicable to this project:

- Section 14.14.120 - Reduction of Pollutants in Stormwater. This ordinance regulates any activity that may result in pollutants entering the stormwater system and identifies set measures. For construction related activities (under subsection B) all applicable federal, state, and local laws, ordinances, or regulations must be complied with, including the current state of California NPDES general permit for stormwater discharges associated with construction activity. Additionally, all construction activities that may contribute to stormwater pollution or contamination must comply with BMPs consistent with the California Stormwater Quality Association Best Management Practices Handbooks or equivalent guidelines.

Environmental Setting

Hydrology

Regional Hydrology

The project area is located within the Dry Creek Watershed (HUC 1804000913) within the Modesto Reservoir-Dry Creek Subwatershed (HUC 180400091308) (United States Geological Survey, 2016). The project area is located within the Upper Tuolumne Subbasin (HUC 18040009) and portions of the County are within the San Joaquin Basin. The Upper Tuolumne Parent Watershed extends across approximately 1,198,607 acres in the Central Valley.

Claribel Lateral is an earthen bottom irrigation canal, which is a manmade feature with an earthen bottom and is used to convey water to the surrounding agricultural fields for irrigation use. Claribel Lateral has controlled flows to restrict irrigation water flow either mechanically or manually. In addition, its banks and vegetation are managed regularly. A holding reservoir, which receives water from Oakdale South Main Canal is located upstream of the Claribel Lateral and approximately two miles northeast of the project area. Water flows south through the Claribel Lateral from the project area, then flows underground starting 0.5 mile north of Dry Creek.

Floodplain

According to the FEMA Flood Insurance Rate Map Panel 06099CO355E, the project area is mapped as Zone X, which is an area of minimal flooding (Federal Emergency Management Agency, 2009). In addition, the project area is not located within or adjacent to a federal regulatory floodway. Therefore, the project area is not located on a floodplain.

Groundwater

The project area is located within the Modesto Subbasin of the San Joaquin Valley Groundwater Basin. The Modesto Subbasin is located south of the Stanislaus River, north of the Tuolumne River, east of the San Joaquin River, and west of the crystalline basement rock of the Sierra Nevada foothills. The boundaries of the Modesto Subbasin are shared with the Eastern San Joaquin Valley, Turlock Groundwater, and Delta-Mendota Subbasins. The GSA that manages groundwater resources within the project area is the

Stanislaus and Tuolumne Rivers Groundwater Basin Association. According to the Groundwater Sustainability Plan, the groundwater beneficial uses within the Modesto Subbasin include municipal, small water system, and domestic drinking water, industrial and agricultural supply, and environmental uses (Stanislaus and Tuolumne Rivers Groundwater Basin Association, 2022).

Between the period of 1970 to 2000, the average water level within the Modesto Subbasin has decreased by approximately 15 feet, with steep declines and rebounds varying throughout the years (California Department of Water Resources, 2004). Natural recharge within the Modesto Subbasin is estimated to be approximately 86,000 acre-feet (af). Annual urban and agricultural extraction of the subbasin is estimated to be approximately 81,000-af and 145,000-af, respectively (California Department of Water Resources, 2004). The depth to groundwater within the project area is unknown. However, groundwater in the Modesto Subbasin occurs at depths of 150 to 250 feet.

Discussion of Checklist Responses

a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less Than Significant Impact. Construction, demolition, excavation, grading, clearing, and grubbing, and other construction activities resulting in ground disturbances could impact water quality, especially during rain events. Other potential impacts on water quality include the accidental release of oil, fuel, and other petroleum products from construction vehicle and equipment; concrete wash water; oils from asphalt paving; construction waste and waste management areas; and porta potties. However, with compliance of CWA Section 404 and 401 permits, water quality standards would be met, and surface and groundwater quality would not be degraded. Therefore, the project would result in less than significant impacts on surface and groundwater quality. In addition, avoidance and minimization measures **BIO-1** through **BIO-9** would be implemented to further reduce construction impacts to the greatest extent feasible.

b. Would the project 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. Project operation would not require the use of any water and project construction would use a minimal amount of water for dust control. Impervious area is only anticipated to have a slight increase of 0.19 acre due to the widened bridge deck. However, water would continue to reach pervious surfaces and infiltrate into the soil, similar to the existing conditions. This would not substantially impact groundwater recharge. Therefore, the project would result in less than significant impacts on groundwater supplies.

c. Would the project 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 surface, in a manner that would:

i) Result in substantial erosion or siltation on- or off-site?

Less Than Significant Impact. Project construction activities that could result in bank erosion include an increase of impervious surface, excavation up to 2.5 feet, and removal of vegetation. The construction activities would slightly increase erosion due to an increase of surface runoff. Water would also be used

for dust control to reduce erosion during construction. Permanent installation of bank armoring following construction would cover the soils and reduce potential of erosion and increase bank stability. Therefore, the project would result in less than significant impacts related to erosion. Implementation of avoidance and minimization measures **BIO-3** and **BIO-8** would be applied to the project to reduce erosion.

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?

Less Than Significant Impact. There would be an increase of impervious area (0.19 acre) due to the widened bridge. The increase in impervious area would create a minor increase in surface runoff. However, the project would be designed to accommodate the anticipated runoff. No flooding would result in this increase of runoff. Therefore, the project would result in less than significant impacts related to flooding.

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?

Less Than Significant Impact. Although the project would result in a minor increase in surface runoff, the project would be designed to accommodate existing and anticipated runoff levels and would not result in substantial increases in polluted runoff. The new bridge would not result in an increase in traffic volumes and would not result in an increase in pollutant runoff from vehicles. Therefore, the project would result in less than significant impacts on runoff.

iv) Impede or redirect flood flows?

Less Than Significant Impact. A water diversion would likely be required to divert water around the construction area, which would temporarily alter canal flows. The diversion would be designed to accommodate anticipated flows. The size of the diversion system would be minimized to the extent feasible and would not be used longer than necessary to divert water through the construction area. Following construction, the water diversion would be removed, and flow patterns would be restored to their normal conditions. Therefore, the project would result in less than significant impacts on flood flow.

d. Is the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Less Than Significant Impact. The project area is not located on a floodplain, or within a federal regulatory floodway. Additionally, the project is not in a tsunami or seiche zone (California Department of Conservation, 2019). Therefore, the project would result in no impact on flood hazards, tsunamis, or seiche zones.

e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less Than Significant Impact. Standard BMPs, including erosion control measures, would be incorporated into the project to comply with the RWQCB's Water Quality Control Plan. The RWQCB's goal for the Water Quality Control Plan is to support the water quality in the Central Valley Basin. The project is unlikely to degrade the water quality with the implementation of the protective measures and acquisition of the

relevant permits, such as the Section 401 and 404 permit. Therefore, the project would result in less than significant impacts on water quality control plans or sustainable groundwater management plans.

Avoidance, Minimization, and/or Mitigation Measures

BIO-1 through **BIO-9** are also applicable to minimizing Water Quality impacts. See avoidance, minimization, and mitigation measures in *Section 4.4 Biological Resources*.

4.11 Land Use and Planning

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the Project:				
a. Physically divide 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?	☐	☐	☒	☐

The following discussion incorporates the results of the Land Use and Community Impacts Memorandum that was prepared for this project (GPA Consulting, 2022b).

Regulatory Setting

Local Regulations

Stanislaus County General Plan

The General Plan's Land Use Element outlines the following goals and policies regarding land use (Stanislaus County, 2015):

- Goal One: Provide for diverse land use needs by designating patterns which are responsive to the physical characteristics of the land as well as to environmental, economic, and social concerns of the residents of Stanislaus County.
    - Policy One: Land will be designated and zoned for agricultural, residential, commercial, industrial, or historical uses when such designations are consistent with other adopted goals and policies of the General Plan.
    - Policy Two: Land designated Agriculture shall be restricted to uses that are compatible with agricultural practices, including natural resources management, open space, outdoor recreation, and enjoyment of scenic beauty.
- Goal Two: Ensure compatibility between land uses.
    - Policy Fourteen: Uses shall not be permitted to intrude into or be located adjacent to an agricultural area if they are detrimental to continued agricultural usage of the surrounding area.
- Goal Three: Foster stable economic growth through appropriate land use policies.
    - Policy Seventeen: Agriculture, as the primary industry of the County, shall be promoted and protected.

Environmental Setting

The project area is predominantly rural and agricultural, immediately surrounded by farmland and orchards. The surrounding area is sparsely populated and many of the nearby properties include rural residential estates. Land uses within and immediately adjacent to the project area include AG land use to the north, south, east, and west of Oakdale-Waterford Highway; there is also a small section of IND land use southwest of the project area.

Discussion of Checklist Responses

a. Would the project physically divide an established community?

Less Than Significant Impact. The project would include replacing an existing bridge on the same alignment; therefore, operation of the project would not divide the existing community. For the entire duration of project construction, roadway users and nearby residents would be temporarily impacted by the full closure of the Oakdale-Waterford Highway Bridge, which is anticipated to last approximately nine to 12 months. However, a detour route would be provided. It is anticipated that vehicles traveling south on Oakdale-Waterford Highway would be diverted to travel south on Albers Road and east on Claribel Road for a detour of approximately three-miles. Vehicles traveling north on Oakdale-Waterford Highway would travel the same route in reverse. Directional signage would be set along the route to guide roadway users where to go. Driveway access to the adjacent parcels should not be impacted by the project. Access would be fully restored following construction activities. Therefore, the project would result in a less than significant impact on physically dividing the community.

b. Would the project 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?

Less Than Significant Impact. The project would require permanent land acquisitions and a TCE on the parcels where the new bridge and roadway approaches would be constructed. Permanent ROW acquisitions (a total of 0.16 acre) would be required from land designated by the CDOC as Unique Farmland. The permanent ROW acquisitions would permanently convert the land to bridge/roadway use. Conversion of agricultural land to non-agricultural land would conflict with aforementioned General Plan policies if the productivity of prime agricultural land was impaired. ROW acquisitions for the project would not substantially impair the productivity of the agricultural land given that less than one percent of the farmland acquired would become unfarmable. In addition, the remaining farmland on this parcel would continue to be farmable. Therefore, the project would result in a less than significant impact on any land use policies.

Avoidance, Minimization, and/or Mitigation Measures

The project would result in a less than significant impact on Land Use. The project would not require Avoidance, Minimization, and/or Mitigation Measures for Land Use.

4.12 Mineral Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the Project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Regulatory Setting

State Regulations

Surface Mining and Reclamation Act

The Surface Mining and Reclamation Act of 1975 (SMARA, Public Resources Code, Sections 2710-2796) encourages the production, conservation, and protection of California's mineral resources. SMARA requires that the State Mining and Geology Board map areas throughout the State of California that contain regionally significant mineral resources. These mineral resources are classified based on the Mineral Resource Zone (MRZ) system, which classifies MRZs into four categories:

- MRZ-1: Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
- MRZ-2: Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence.
- MRZ-3: Areas containing mineral deposits for which the significance cannot be determined from available data.
- MRZ-4: Areas where available information is inadequate for assignment of any other MRZ category.

Local Regulations

Stanislaus County General Plan

The General Plan's Conservation/Open Space Element outlines the following goals and policies regarding mineral resources (Stanislaus County, 2015):

- Goal Nine: Manage extractive mineral resources to endure an adequate supply without degradation of the environment.
    - Policy Twenty-Six: Surface mining in areas classified by the State Division of Mines and Geology as having significant deposits of extractive mineral resources shall be encouraged.
    - Policy Twenty-Seven: The County shall emphasize the conservation and development of lands having significant deposits of extractive mineral resources by not permitting uses that threaten the potential to extract the minerals.

- Policy Twenty-Eight: Lands used for the extraction of mineral resources shall be reclaimed as required by the Surface Mining and Reclamation Act of 1975 (SMARA) to minimize undesirable impacts.

Environmental Setting

The County contains significant mineral deposits (MRZ-2a) mostly composed of aggregate minerals. Aggregate minerals are most commonly used for development and concrete production. According to the General Plan, the project area is not an aggregate resource area (County of Stanislaus, 1993; Conservation, 2015). In addition, there are no active mines within the project area (California Department of Conservation, Mines Online, 2015).

Discussion of Checklist Responses

a. Would the project 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. According to the County's General Plan Conservation/Open Space Element, the project area is not within a mineral resource area. Therefore, the project would result in no impact on mineral resources.

b. Would the project 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. See discussion in response (a) above.

Avoidance, Minimization, and/or Mitigation Measures

The project would result in no impact on Mineral Resources. The project would not require Avoidance, Minimization, and/or Mitigation Measures for Mineral Resources.

4.13 Noise

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the Project:				
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?	☐	☐	☒	☐
b. Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
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?	☐	☐	☐	☒

The following discussion incorporates the results of the Noise Technical Memorandum that was prepared for this project (Ambient Air Quality and Noise Consulting, 2021).

Regulatory Setting

State and Local Regulations

Construction Noise

Caltrans Standard Specifications

Caltrans Standard Specifications includes specifications for the control of noise and vibration associated with construction activities. Caltrans Standard Specifications, Section 14-8.02, Noise Control, requires that noise from construction activities not exceed 86 A-weighted decibels (dBA) maximum sound level (L_{max})at 50 feet from the job site between the hours of 9:00 p.m. and 6:00 a.m. (California Department of Transportation, 2018; Ambient Air Quality and Noise Consulting, 2021).

Stanislaus County Code Chapter 10.46 Noise Control

Stanislaus County limits noise generated by construction equipment to an average sound level of not greater than 75 decibels between the hours of 7:00 p.m. and 7:00 a.m. at the property line of residential land uses (Ambient Air Quality and Noise Consulting, 2021; County of Stanislaus, n.d.).

Vibration

There are no federal, state, or local regulatory standards for construction generated groundborne vibration. However, Caltrans has developed vibration criteria based on potential structural damage risks and human annoyance. Caltrans-recommended criteria for the evaluation of groundborne vibration levels, with regard to structural damage and human annoyance, are summarized in **Table 6**. The criteria

apply to continuous vibration sources, which includes vehicle traffic and most construction activities. All damage criteria for buildings are in terms of ground motion at the buildings' foundations. No allowance is included for the amplifying effects of structural components (California Department of Transportation, 2020b).

Table 6 Summary of Groundborne Vibration Levels and Potential Effects

Vibration Level (in/sec ppv)	Human Reaction	Effect on Buildings
0.006-0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type.
0.08	Vibrations readily perceptible.	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected.
0.10	Level at which continuous vibrations begin to annoy people.	Virtually no risk of "architectural" damage to normal buildings.
0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations).	Threshold at which there is a risk of "architectural" damage to fragile buildings.
0.4-0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges.	Potential risk of "architectural" damage may occur at levels above 0.3 in/sec ppv for older residential structures and above 0.5 in/sec ppv for newer structures.

Notes: The vibration levels are based on peak particle velocity in the vertical direction for continuous vibration sources, which includes most construction activities.
Source: (California Department of Transportation, 2020b; Ambient Air Quality and Noise Consulting, 2021)

As shown in **Table 6** the threshold for architectural damage commonly applied to construction activities is a peak particle velocity (ppv) of 0.3 inches per second (in/sec) for fragile structures and 0.5 in/sec ppv for newer structures. Levels above 0.2 in/sec ppv may result in increased levels of annoyance for people in buildings (California Department of Transportation, 2020b).

Environmental Setting

The areas adjacent to the project area consist predominantly of a mix of agricultural and rural-residential land uses. The nearest rural-residential dwellings are located approximately 312 feet south of the existing bridge and approximately 230 feet west of the Oakdale-Waterford Highway. No fragile or historic structures were identified in the project vicinity (Ambient Air Quality and Noise Consulting, 2021).

Short-term noise measurements were conducted on November 17th, 2021, for purposes of documenting the ambient noise environment in the project area. Noise measurements were conducted using a Larson Davis Laboratories LxT Type I sound-level meter. One noise measurement was conducted along the Oakdale-Waterford Highway, to the northwest of the existing bridge. Noise-measurement survey data is summarized in **Table 7**.

Table 7 Summary of Short-Term Noise Measurements

Monitoring Location	Primary Noise Sources	Measurement Period	Noise Level (dBA)	
			L_{eq}	L_{max}
Northwest of bridge, approximately 20 feet from roadway edge.	Traffic on Oakdale-Waterford Highway	12:25 p.m. -12:45 p.m.	65.8	79.3

Source: (Ambient Air Quality and Noise Consulting, 2021)

Based on the measurements conducted, ambient noise levels in the project area are primarily influenced by vehicular traffic on the Oakdale-Waterford Highway. Measured daytime noise levels (in dBA equivalent continuous sound level [L_{eq}]) generally ranged from the low to mid-60s, and typically decrease with increased distance from the roadway. Ambient evening and nighttime noise levels are typically five to 10 dBA lower than daytime noise levels.

Discussion of Checklist Responses

a. Would the project result in the 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. During construction of the project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. **Table 8** summarizes noise levels produced by construction equipment commonly used on roadway and bridge construction projects.

Table 8 Construction Equipment Noise

Equipment	Typical Noise Level 50 feet from Source (dBA)	
	L_{max}	L_{eq}
Backhoes	78	74
Bulldozers	82	74
Compressors	78	73
Cranes	81	74
Concrete Pump Truck	77	73
Hydraulic Break Rams	90	80
Impact Pile Driver	101	94
Front end Loaders	79	75
Pneumatic Tools	85	82
Pumps	81	78
Rollers	80	73
Scrapers	84	80

Based on the levels depicted in **Table 8**, individual pieces of construction equipment would generate intermittent noise levels ranging from approximately 77 to 101 dBA L_{max} at a distance of 50 feet. Average-hourly noise levels associated with the operation of individual pieces of construction equipment can range from approximately 73 to 94 dBA L_{eq}.

The nearest existing residential dwellings are located approximately 312 feet from the existing bridge and approximately 230 feet from areas along the Oakdale Waterford Highway that potentially would need reconstruction. Noise produced by construction equipment decreases at a rate of about six decibels per doubling of distance from the source. Based on this attenuation rate, the distances to the nearest dwellings, the equipment noise levels identified in **Table 8**, and assuming multiple pieces of equipment operating simultaneously, the highest predicted average-hourly noise levels at the nearest residential dwellings would range from approximately 65 to 79 dBA L_{eq}. Intermittent noise levels could reach levels up to approximately 85 dBA L_{max} for brief periods of time. Actual noise levels would vary depending on various factors, including the type and number of pieces of equipment used and duration of use. Predicted construction-generated noise levels at the nearest residence are summarized in **Table 9.**

Table 9 Predicted Construction Noise Levels at the Nearest Residential Dwelling

Activity	Noise Level (dBA)	
	L_{eq}	L_{max}
Bridge Demolition	68	74
Bridge Construction	65	65
Pile Driving	79	85
Road Construction & Paving	68	72

Source: (Ambient Air Quality and Noise Consulting, 2021)
Notes: Noise levels were calculated based on the equipment levels noted in Table 8 and assuming multiple pieces of equipment operating simultaneously. Based on distances of 312 feet from the bridge to the nearest residential dwelling for bridge demolition, bridge construction, and pile driving activities, and 230 feet from potential road construction and paving activities.

In comparison to ambient daytime noise levels, construction-generated noise levels at the nearest residential dwellings would be detectable. With regard to residential dwellings, activities occurring during the more noise-sensitive nighttime hours would be of particular concern given the potential for increased levels of annoyance and sleep disruption to building occupants. Pile driving activities would not occur during nighttime work; therefore, noise levels during 7 p.m. to 7 a.m. would not exceed noise level limitations outlined in Stanislaus County Code Chapter 10.46 Noise Control. Therefore, the project would result in a less than significant impact related to generating noise in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. In addition, implementation of avoidance and minimization measures **NOI-1** through **NOI-5** would further reduce construction noise levels.

b. Would the project result in the generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact. Construction related groundborne vibration levels associated with the proposed project would be largely associated with the operation of off-road equipment (e.g., vibratory rollers, hoe rams, bulldozers, trucks, and jackhammers). In addition, the use of pile drivers is anticipated for this project. Groundborne vibration levels commonly associated with off-road equipment used on

roadway and bridge construction projects are summarized in **Table 6**. As indicated, groundborne vibration levels associated with construction equipment generally range from approximately 0.003 to 0.65 in/sec ppv at 25 feet.

The nearest existing residential dwellings are located approximately 312 feet from the existing bridge and approximately 230 feet from areas along Oakdale-Waterford Highway that would potentially need reconstruction. Predicted groundborne vibration levels at these nearest residential structures were quantified based on these distances and the reference noise levels identified in **Table 9**. Predicted groundborne vibration levels at the nearest existing structures are summarized in **Table 10.**

Table 10 Representative Vibration Levels for Construction Equipment

Equipment	Peak Particle Velocity at 25 Feet (in/sec)
Vibratory Roller	0.210
Hoe Ram	0.089
Large Bulldozers	0.089
Caisson Drilling	0.089
Loaded Trucks	0.076
Impact Driver (typical)	0.650
Jackhammer	0.035
Small Bulldozers	0.003

Source: (Ambient Air Quality and Noise Consulting, 2021; California Department of Transportation, 2020b)

Predicted groundborne vibration levels at these nearest residential structures were quantified based on these distances and the reference noise levels identified in **Table 8**. Predicted groundborne vibration levels at the nearest existing structures are summarized in **Table 11**.

Table 11 Predicted Construction Vibration Levels at the Nearest Structure

Activity	Peak Particle Velocity (in/sec)
Bridge Demolition	0.003
Bridge Construction (Pile Driving)1	0.057
Bridge Construction	0.003
Road Construction & Paving	0.012

Source: (Ambient Air Quality and Noise Consulting, 2021)
Notes: Groundborne vibration levels were calculated based on representative equipment levels noted in Table 5. Based on distances of 312 feet from the bridge to the nearest residence for bridge demolition, bridge construction, and pile drilling activities, and 230 feet from potential road construction and potential paving activities.
1. Modeled conservatively using the upper range PPV of a Pile Driver.

As depicted in **Table 11**, groundborne vibration levels at the nearest residence would range from approximately 0.003 in/sec ppv to 0.057 in/sec ppv. Groundborne vibration levels at this nearest structure would not exceed the commonly applied criteria for structural damage of 0.5 in/sec ppv. However according to **Table 6**, vibration levels would be perceptible. Construction activities would be short-term and potential increases in annoyance associated with groundborne vibration would be minimal. Therefore, the project would result in a less than significant impact related to generating excessive

groundborne vibration. Avoidance and minimization measures **NOI-1** through **NOI-5** would further reduce noise related to construction activities.

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. The project would replace a structurally deficient bridge located in a rural portion of Stanislaus County. The project area is not within two miles of a public airport. There are two public use airports in Stanislaus County, the Modesto City-Co-Harry Sham Field Airport located approximately 13 miles from the project area, and the Oakdale Airport located approximately six miles from the project area. Therefore, the project would result in no impact on an airport land use plan.

Avoidance, Minimization, and/or Mitigation Measures

The following measures would be implemented to avoid or minimize construction noise and vibration levels:

NOI-1 Per Caltrans' Standard Specifications, Section 14-8.02 Noise Control, construction noise levels would be limited to 86 dBA L_{max} at 50 feet during the nighttime hours of 9:00 p.m. to 6:00 a.m.

NOI-2 To the extent possible and in accordance with County of Stanislaus noise-control requirements, construction activities, excluding activities required to occur without interruption or activities that would pose a significant safety risk to workers or citizens, would be limited to between the daytime hours of 7:00 a.m. and 7:00 p.m.

NOI-3 Internal combustion engines would be equipped with a muffler of a type recommended by the manufacturer.

NOI-4 A County permit would be obtained for construction activities that occur during the nighttime hours of 7:00 p.m. to 7:00 a.m., or on Sundays or national holidays.

NOI-5 During construction, noise-reduction measures such as idling limitations for construction equipment would be implemented.

4.14 Population and Housing

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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)?	☐	☐	☐	☒
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Regulatory Setting

Local Regulations

Stanislaus County General Plan

The General Plan's Land Use Element outlines the following goal and policy regarding population and housing (Stanislaus County, 2015):

- Goal Four: Ensure that an effective level of public service is provided in unincorporated areas.
    - Policy Twenty-Four: Future growth shall not exceed the capabilities/capacity of the provider of services such as sewer, water, public safety, solid waste management, road systems, schools, health care facilities, etc.

Environmental Setting

According to the 2021 United States Census population estimate, Stanislaus County has a population of 552,999 individuals and a total of 183,898 housing units (United States Census Bureau, 2021).

Discussion of Checklist Responses

a. Would the project 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)?

No Impact. Project improvements would include the removal of an existing bridge and installation of a new bridge. The project would not include the construction of homes or businesses. In addition, the bridge would not increase capacity. As such, the project would not induce population growth. Therefore, the project would result in no impact on population growth.

b. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The project would not involve the displacement of housing units or people. Partial parcel acquisition would be required to complete the project; however, acquisition of those parcels would not displace any residents. Therefore, the project would result in no impact on displacing people or housing.

Avoidance, Minimization, and/or Mitigation Measures

The project would result in no impact on Population and Housing. The project would not require Avoidance, Minimization, and/or Mitigation Measures for Population and Housing.

4.15 Public Services

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the Project:				
a. 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:				
i. Fire protection?	☐	☐	☒	☐
ii. Police protection?	☐	☐	☒	☐
iii. Schools?	☐	☐	☒	☐
iv. Parks?	☐	☐	☐	☒
v. Other public facilities?	☐	☐	☒	☐

Regulatory Setting

Local Regulations

Stanislaus County General Plan

The General Plan's Land Use Element outlines the following goal and policy regarding public services (Stanislaus County, 2015):

- Goal Four: Ensure that an effective level of public service is provided in unincorporated areas.
    - Policy Twenty-Four: Future growth shall not exceed the capabilities/capacity of the provider of services such as sewer, water, public safety, solid waste management, road systems, schools, health care facilities, etc.

Environmental Setting

The project area is located approximately three miles southeast of the City of Oakdale between Albers Road and Claribel Road. The project area contains rural and agricultural land that is mostly undeveloped, and there are sporadic rural residential properties located along the Oakdale-Waterford Highway. The nearest rural-residential dwellings are located approximately 312 feet south of the existing bridge and approximately 230 feet west of the Oakdale-Waterford Highway.

Emergency services that respond to the project area include:

- **Fire Protection**: Oakdale Rural Fire District; 1398 East F Street, Oakdale, CA 95361
- **Police Protection*:*** Oakdale Police Department; 245 North 2nd Avenue, Oakdale, CA 95361

Discussion of Checklist Responses

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?

i) Fire protection?

Less Than Significant Impact. For the entire duration of project construction, roadway users and nearby residents would be temporarily impacted by the full closure of the Oakdale-Waterford Highway Bridge, which is anticipated to last approximately nine to 12 months. However, a detour route would be provided. It is anticipated that vehicles traveling south on Oakdale-Waterford Highway would be diverted to travel south on Albers Road and east on Claribel Road for a detour of approximately three-miles. Vehicles traveling north on Oakdale-Waterford Highway would travel the same route in reverse. Directional signage would be set along the route to guide roadway users where to go. Driveway access to the adjacent parcels should not be impacted by the project. Access would be fully restored following construction activities. The project would not induce growth or result in the need for new government facilities. Therefore, the project would result in a less than significant impact related to physical impacts on government facilities or maintaining service ratios, response times or other performance objectives for emergency services.

ii) Police Protection

Less Than Significant Impacts. See discussion in response (a) above.

iii) Schools?

Less Than Significant Impact. There are no schools within 0.25 mile of the project area. The closest school to the project is Milnes Elementary School, located 5.7 mile southwest of the project area. The project would not include residential development, would not result in an increase in population, and would not increase the potential number of students within the service area of the Riverbank Elementary District. Therefore, the project would result in no impact on schools.

iv) Parks?

No Impact. The closest park is Oakdale Skatepark located approximately three miles north from the project area. The project would not include residential development and would not increase the potential number of residents within the service area of the City of Oakdale Department of Parks and Recreation. In addition, the project would not increase the need for recreational facilities. Therefore, the project would result in no impact on parks.

v) Other Public Facilities?

Less Than Significant Impact. The project would not include residential development and would not increase the potential number of residents within the project vicinity that could result in an increase demand for other public services such as public libraries. The project would potentially cause delays due

to the road closure during construction. However, a detour route would be provided to minimize traffic delays. Therefore, the project would result in a less than significant impact on other public facilities.

Avoidance, Minimization, and/or Mitigation Measures

The project would result in a less than significant impact on Public Services. The project would not require Avoidance, Minimization, and/or Mitigation Measures for Public Services.

4.16 Recreation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the Project:				
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Regulatory Setting

No federal or state plans, policies, regulations, or laws related to recreation are applicable to the project.

Local Regulations

Stanislaus County General Plan

The General Plan's Land Use Element and Conservation/Open Space Element outline the following goals and policies regarding recreation (Stanislaus County, 2015):

- Goal One: Provide for diverse land use needs by designating patterns which are responsive to the physical characteristics of the land as well as to environmental, economic, and social concerns of the residents of Stanislaus County.
    - Policy Two: Land will be designated and zoned for agricultural, residential, commercial, industrial, or historical uses when such designations are consistent with other adopted goals and policies of the General Plan.
- Goal One: Encourage the protection and preservation of natural and scenic areas throughout the County.
    - Policy One: Maintain the natural environment in areas dedicated as parks and open space.
- Goal Four: Provide for the open-space recreational needs of the residents of the County.
    - Policy Twelve: Provide a system of local and regional parks which will serve the residents of the County.

Environmental Setting

There are no parks or recreational facilities within or adjacent to the project area. The closest recreational facility is Oakdale Skatepark located approximately three miles north from the project area. The City of Oakdale Department of Parks and Recreation maintains and operates this park.

Discussion of Checklist Responses

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 project would not result in population growth or generate increased demand for recreational facilities. Construction of the project also would not necessitate the closure of any parks. Therefore, the project would result in no impact related to the increased use of existing neighborhoods, regional parks, or 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?

No Impact. The project would not require ROW acquisitions from recreational facilities and would not require the construction of any such facilities. Therefore, the project result in no impact related to the construction or expansion of recreational facilities.

Avoidance, Minimization, and/or Mitigation Measures

The project would result in no impact on Recreation. The project would not require Avoidance, Minimization, and/or Mitigation Measures for Recreation.

4.17 Transportation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the Project:				
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d. Result in inadequate emergency access?	☐	☐	☒	☐

The following discussion incorporates the results of the Traffic Memorandum that was prepared for this project (GPA Consulting, 2022d).

Regulatory Setting

Stanislaus County General Plan

The General Plan's Circulation Element outlines the following goal and policy regarding transportation (Stanislaus County, 2015):

- Goal One: Provide and maintain a transportation system throughout the County for the movement of people and goods that also meets land use and safety needs for all modes of transportation.
    - Policy Two: The Circulation system shall be designed and maintained to promote safety by combining multiple modes of transportation into a single, cohesive system.

Environmental Setting

The Oakdale-Waterford Highway is designated in the County's General Plan as a major collector road, which provides access to the adjacent agricultural properties and movement of moderate volumes of people and goods in rural, urban, and industrial zones.

Discussion of Checklist Responses

a. Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less Than Significant Impact. The project would replace a structurally deficient bridge along Oakdale Waterford Highway in order to provide a safe, functional, and reliable crossing over the Claribel Lateral.

The project would not increase existing traffic capacity. Therefore, the project would result in no impact on a circulation plan, policy, or ordinance.

b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Less Than Significant Impact. CEQA Guidelines section 15064.3, subdivision (b) outlines criteria for analyzing transportation impacts. Per CEQA Guidelines section 15064.3 subdivision (b), transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact.

For the entire duration of project construction, roadway users and nearby residents would be temporarily impacted by the full closure of the Oakdale-Waterford Highway Bridge, which is anticipated to last approximately nine to 12 months. However, a detour route would be provided. It is anticipated that vehicles traveling south on Oakdale-Waterford Highway would be diverted to travel south on Albers Road and east on Claribel Road for a detour of approximately three miles. Vehicles traveling north on Oakdale-Waterford Highway would travel the same route in reverse. Directional signage would be set along the route to guide roadway users where to go. The detour would temporarily increase vehicle miles traveled. However, the temporary increase would be negligible and access to Oakdale-Waterford Highway Bridge would be fully restored following construction activities. During operation, the project would not increase the capacity of the roadway. Therefore, the project would result in a less than significant impact on CEQA Guidelines section 15064.3.

c. Would the project substantially increase hazards due to a geometric design feature or incompatible uses?

No Impact. The existing bridge is at risk of bridge failure due to scour. The project would include the replacement of a structurally deficient bridge on the same alignment. The project would be designed to meet current safety and geometric standards. Therefore, the project would result in no impact related to geometric hazards.

d. Result in inadequate emergency access?

Less Than Significant Impact. Construction of the project is anticipated to last between nine and 12 months. For the duration of construction, the bridge would be closed, and traffic would be detoured around the project area using existing roads. Vehicles traveling south on Oakdale-Waterford Highway would likely be diverted to travel south on Albers Road and east on Claribel Road for a detour of approximately three miles. Vehicles traveling north on Oakdale-Waterford Highway would travel the same route in reverse. Temporary signage would be placed along the route to provide wayfinding for vehicles. This detour would not substantially affect emergency access. Full access to the project area would be restored following construction activities. Therefore, the project would have a less than significant impact on emergency access.

Avoidance, Minimization, and/or Mitigation Measures

The project would result in a less than significant impact on Transportation. The project would not require Avoidance, Minimization, and/or Mitigation Measures for Transportation.

4.18 Tribal Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC 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 PRC section 5020.1(k), or	☐	☐	☒	☐
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☒	☐

The following discussion incorporates the results of Archaeological Survey Report that was prepared for this project (Duke Cultural Resource Management, LLC, 2022).

Regulatory Setting

Federal Regulations

Assembly Bill 52

In 2014, 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.

Environmental Setting

The APE is located within the territory of native Northern Valley Yokuts speakers (Wallace, 1978).Their territory extended from north of the Calaveras River south to the source of the San Joaquin. The western limit recorded as the eastern side of the Coast Range, while the eastern limit across the Valley to the foothills of the Sierra Nevada (Wallace, 1978). Yokuts settled near substantial watercourses, typically on low mounds near the banks where structures were less prone to flooding. Riverine environment and

concomitant resources permitted a sedentary lifestyle and/or repeated occupations (Wallace, 1978). Two studies identified the Project area and the Tuolumne River region as belonging to Taulamni or Tauhalames Northern Yokuts (Bennyhoff, 1977; Cook, 1955).

The Northern Valley Yokuts speakers' basic social and economic group was the nuclear and/or extended family household unit. Named villages or hamlet groups functioned as localized patrilineal groups that combined to form tribelets numbering between 300 and 500 persons (Wallace, 1978).

Native American Consultation

Stanislaus County does not have any California Native American tribes traditionally or culturally affiliated with the project area who have requested in writing that they be consulted for the purposes of AB 52, pursuant to PRC Section 21080.3.1. However, as part of NEPA compliance and pursuant to Section 106, consultation with the NAHC was conducted. An inquiry for tribes associated with the area in the Sacred Lands File (SLF) was submitted September 21, 2021, and a response letter was received from the NAHC on February 8, 2022. The NAHC indicated negative results for the SLF but provided a list of six groups represented by nine individuals with connections to the area. Section 106 notification letters were sent to the following list on February 14, 2022: Gloria Grimes and Debra Grimes (Calaveras Band of Mi-Wuk Indians (Miwok)), California Valley Miwok Tribe (Miwok), Katherine Perez and Timothy Perez (North Valley Yokuts Tribe (Costanoan, Northern Valley Yokut)), Sandra Chapman (Southern Sierra Miwuk (Miwok)), Joey Garfield, Kerri Vera, and Neil Peyron (Tule River Indian Tribe (Yokut)), and Kenneth Woodrow (Wukasche Indian Tribe/Eshom Valley Band (Foothill Yokut, Mono)).

Emails were used to follow-up with all tribal representatives on March 1, 2022. However, as of October 21,2022, no responses were received.

Discussion of Checklist Responses

a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource (TCR), defined in PRC 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 listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC section 5020.1(k)?

Less Than Significant Impact. A record search of the APE and a surrounding 1-mile radius was conducted at the CCIC to identify any historic properties or previous cultural resources studies on file. No tribal historic resources or tribal cultural resources were documented within the search radius.

Two previous studies were conducted within one mile of the APE. However, no cultural resources or sacred sites were identified by the NAHC, or with the interested Native American individuals and groups identified by the NAHC. Additionally, no tribes responded to or provided information on tribal cultural resources in the project area in response to invitations to consult under Section 106.

Pedestrian reconnaissance field surveys were also conducted to examine the APE for evidence of cultural resources. No newly identified tribal cultural resources were present within the APE.

Due to the nature of previous ground disturbances within the APE, there is a low potential to adversely affect unknown, potentially intact buried archaeological deposits that might be eligible for NRHP listing. However, construction of the project would include ground disturbing activities that could unearth tribal cultural resources should they be present in the project limits. Tribal cultural resources could include, but are not limited to, Native American human remains, funerary objects, items or artifacts, sites, features, places, landscapes, or objects with cultural values to the tribe. It is not anticipated to encounter tribal cultural resources. Therefore, the project would result in a less than significant impact on tribal cultural resources. If Tribal Cultural Resources are unearthed, implementation of the avoidance and minimization measures **CUL-1** and **CUL-2** would be implemented.

b. Would the project cause a substantial adverse change in the significance of a tribal cultural resource (TCR), defined in PRC 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 resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Less Than Significant Impact. See discussion from response (a) above.

Avoidance, Minimization, and/or Mitigation Measures

CUL-1 and **CUL-2** are also applicable to minimizing Tribal Cultural Resources impacts. See avoidance, minimization, and mitigation measures in *Section 4.5 Cultural Resources*.

4.19 Utilities and Service Systems

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☒	☐
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
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?	☐	☐	☐	☒
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?	☐	☐	☒	☐
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

Regulatory Setting

State Regulations

California Assembly Bill 939

California AB 939 (California Integrated Waste Management Act), which requires each city and county to divert 50 percent of its solid waste from landfill disposal through source reduction, recycling, and composting.

Senate Bill 1016

SB 1016 (The Solid Waste Disposal Measurement Act) was implemented to provide a simplified measure of a jurisdiction's performance in accordance with AB 939 by moving to a per capita disposal rate.

Environmental Setting

Privately owned companies that provide electricity, natural gas, water and sewer, and telephone services are regulated by the California Public Utilities Commission (CPUC). The CPUC is available to help resolve

disputes and work through issues unresolvable through the service provider. Publicly owned utilities, such as power, gas, and cable television and internet services, are not regulated by the CPUC.

Discussion of Checklist Responses

a. Would the project 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. Intermittent disruptions and relocation of utilities could be required to complete the project. Overhead PG&E lines are located adjacent to both sides of Oakdale-Waterford Highway. During construction, the overhead utilities may be relocated, pending investigation of the location of existing underground and overhead utilities. All utility relocations would be conducted in coordination with the service providers. Therefore, the project would result in a less than significant impact related to the relocation of utilities.

b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less than Significant Impact. The project would require temporary water supplies to meet dust control specifications. However, the project would not involve the construction of any structures or facilities that would require additional water supplies. Likewise, the project would not increase population or alter the distribution of population in the project such that additional water supplies would be required. The project also would not expand agriculture and thus would not require additional agricultural water supply. Therefore, the project would result in less than significant impact on water supplies.

c. Would the project 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. The project would not include any uses, features, or facilities that would generate wastewater and would not require the need for wastewater treatment. Therefore, the project would result in no impact on the capacity of wastewater treatment.

d. Would the project 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 County is subject to AB 939 and SB 1016 requirements. Fink Road Landfill is owned by the County and has a remaining capacity of 7,184,701 cubic yards (CalRecycle, 2017). The project would generate solid waste during construction. The demolished existing bridge structure would require disposal, as would demolished portions of the roadway approaches and adjacent driveways. Some amount of material excavated for construction of the bridge abutments and pier would also require disposal. However, the disposal of solid waste during construction would be short-term, and operation of the project would not result in the long-term generation, or disposal, of solid waste. Demolition of the existing bridge and portions of roadway would be performed in accordance with Caltrans Specifications modified to meet environmental permit requirements. All concrete and other debris resulting from the demolition would be removed from the project area and properly disposed of by the contractor. There would be sufficient capacity at the Fink Road Landfill for the project. Disposal of

construction debris would comply with AB 939 and SB 1016 requirements. Therefore, the project would result in a less than significant impact on solid waste reduction goals.

e. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No Impact. Project operation would not result in the long-term generation, or disposal, of solid waste. The County would be required to comply with AB 939 and SB 1016 requirements of diverting 50 percent of its solid waste from landfill disposal through source reduction, recycling, and composting. The disposal of solid waste during construction would be short-term. Solid waste would be sent to a landfill and would be diverted appropriately to meet AB 939 and SB 1016 requirement. Therefore, the project would result in no impact on solid waste regulations.

Avoidance, Minimization, and/or Mitigation Measures

The project would result in a less than significant impact on Utilities and Service Systems. The project would not require Avoidance, Minimization, and/or Mitigation Measures for Utilities and Service Systems.

4.20 Wildfire

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

Regulatory Setting

State Regulations

Government Code Section 51179

California law requires the California Department of Forestry and Fire Protection to designate areas, or make recommendations for local agency designation of areas, that are at risk from significant fire hazards based on fuels, terrain, weather, and other relevant factors (California Department of Forestry and Fire Protection, 2013). These areas at risk of interface fire losses are referred to by law as "Fire Hazard Severity Zones". The law requires different zones to be identified (Moderate to Very High). But with limited exception, the same wildfire protection building construction and defensible space regulations apply to all "State Responsibility Areas" and any "Fire Hazard Severity Zone" designation.

Local Regulations

Stanislaus County General Plan

The General Plan's Safety Element outlines the following goals and policies regarding wildfire (Stanislaus County, 2015):

- Goal One: Prevent loss of life and reduce property damage as a result of natural disasters.
    - Policy One: The County will adopt (and implement as necessary) plans inclusive of the Multi-Jurisdictional Hazard Mitigation Plan, to minimize the impacts of a natural and man-made disasters.
- Goal Two: Minimize the effects of hazardous conditions that might cause loss of life and property.
    - Policy Six: All new development shall be designed to reduce safety and health hazards.

Environmental Setting

According to the General Plan's Safety Element, wildland fires are generally limited to the foothills located along the Diablo Range and Sierra Nevada Foothills (Stanislaus County, 2015). The project area is within a Local Responsibility Area. According to the California Department of Forestry and Fire Protection, the county does not have any Very High Fire Hazard Severity Zones within the Local Responsibility Area (California Department of Forestry and Fire Protection, 2007). The project area is located approximately 40 miles from the Diablo Range and 35 miles from the Sierra Nevada Foothills.

Discussion of Checklist Responses

a. Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. Disaster routes are used during times of crisis to save lives, protect property, and minimize impacts on the environment. During a disaster, pre-identified disaster routes have priority for clearing, repairing, and restoration over all over roads. The County developed an Emergency Response Plan to address planned response to extraordinary emergency situations. The Emergency Response Plan does not identify Oakdale Waterford Highway as part of an evacuation route (Stanislaus County, 2021).

Construction of the project is anticipated to last between nine and 12 months. For the duration of construction, the bridge would be closed, and traffic would be detoured around the project area using existing roads (see **Figure 4**, Detour Map). Vehicles traveling south on Oakdale-Waterford Highway would likely be diverted to travel south on Albers Road and east on Claribel Road for a detour of approximately three miles. Vehicles traveling north on Oakdale-Waterford Highway would travel the same route in reverse. Temporary signage would be placed along the route to provide wayfinding for vehicles. This detour would not substantially affect emergency response times. Full access to the project area would be restored following construction activities. Therefore, the project would have a less than significant impact on emergency response and evacuation plans.

b. Would the project, 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?

No Impact. According to the General Plan's Safety Element, wildland fires are generally limited to the foothills located along the Diablo Range and Sierra Nevada Foothills (Stanislaus County, 2015). The project is not located within a fire hazard area. The project area is located approximately 40 miles from the Diablo Range and 35 miles from the Sierra Nevada Foothills. Construction of the project would not be likely to start a wildfire given the distance to the nearest fire hazard area. The purpose of the project is to improve safety and reduce the risk of bridge failure by replacing a structurally deficient bridge that is deemed scour critical with a new bridge that would meet current Caltrans design standards. As such, the project would not exacerbate or increase wildfire risk due to design feature. Therefore, the project would result in no impact on exacerbating wildfires.

c. Would the project 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?

Less than Significant Impact. The project would include the replacement of a structurally deficient bridge. Construction and maintenance of the bridge will require equipment usage. Construction equipment would require the use of combustible equipment that could create sparks. Wildfire could cause direct or indirect injury to persons in the vicinity of the project. The presence of construction equipment and fuel sources could temporarily exacerbate fire risk in the project area. BMPs including site vegetation maintenance would be implemented to reduce the potential for fire hazards in the project area. However, the project area is not within a high-risk fire hazard area and would only temporarily exacerbate fire risk to the area. Therefore, the project would result in no impact on exacerbating fires.

d. Would the project 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. According to the General Plan Safety Element, the area west of I-5 in Stanislaus County is susceptible to landslide (Stanislaus County, 2015). The topography within the project area and the surrounding area is generally flat with no notable landforms. In addition, the project is located approximately 30 miles east of I-5 and is not in an area susceptible to landslides. Therefore, the project would result in no impact related to landslides.

Avoidance, Minimization, and/or Mitigation Measures

The project would result in a less than significant impact on Wildfire. The project would not require Avoidance, Minimization, and/or Mitigation Measures for Wildfire.

4.21 Mandatory Findings of Significance

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☒	☐
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Discussion of Checklist Responses

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 project would not substantially degrade the quality of the environment. In addition, the project would comply with all required permits. Impacts to species are not anticipated. Therefore, the project would result in less than significant impact on the quality of the environment, fish or wildlife species habitat, fish or wildlife population, plant or animal communities, number or restricting the range of a rare or endangered plant or animal, or important examples of the major periods of California history or prehistory. As described in the *Biological Resources* section, implementation of measures **BIO-1** through **BIO-14** would be implemented to avoid or minimize impacts on biological resources. The *Cultural Resources* section describes measures **CUL-1** and **CUL-2** which would avoid or minimize impacts on cultural and tribal resources.

b. Does the project have impacts that are individually limited, but cumulatively considerable?

Less Than Significant Impact. According to 14 CCR § 15355, "Cumulative impacts" refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. The cumulative impact from several projects is the change in the environment which results from the incremental impact when added to other closely related past, present, and reasonably foreseeable future projects.

There are no projects in a 2-mile radius of the project area. Additionally, the project would not result in any significant impacts. Because the project's impacts would be less than significant, the project would not contribute considerably to cumulative impacts. Therefore, the project would result in a less than significant impact related to cumulative impacts. Implementation of the measures **BIO-1** through **BIO-14**, **CUL-1** and **CUL-2**, **HAZ-1** through **HAZ-4**, and **NOI-1** through **NOI-5** would further reduce impacts.

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant Impact. The IS analysis shows that the project would not have environmental effects causing substantial adverse effects on human beings, directly or indirectly. Therefore, the project would result in less than significant impacts related to adverse environmental effects on human beings. Impacts associated with biological resources, cultural resources, hazards and hazardous materials, hydrology and water quality, and noise would all be reduced with implementation of avoidance and minimization measures **BIO-1** through **BIO-14**; **CUL-1** and **CUL-2**; **HAZ-1** through **HAZ-4**; and **NOI-1** through **NOI-5**.

5.0 Public Outreach

On June 8, 2022, the County placed a newspaper ad in the *Modesto Bee* to inform the public that an in-person public meeting was scheduled for 5:30 p.m. on June 15, 2022, at the Beard Park Pavilion. The purpose of the public meeting was to inform the community of the project. Representatives from the project team, including County staff and the design consultant attended the meeting.

The public meeting held was an open-house style, with information for the project on storyboards set up on easels around the pavilion. The storyboards included information about the purpose of the project, plan and elevation views of the proposed bridge and roadway improvements, description of project features, proposed detour routes, and a summary of the project completion timeline. Additional printed materials were provided to the attendees to take home which consisted of a list of frequently asked questions and a comment card to provide attendees the opportunity to submit written comments or questions to the County. Two members of the public attended the meeting, and no comments or concerns were received.

6.0 List of Preparers

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8.0 List of Technical Studies

The following studies were prepared for this environmental document:

- Ambient Air Quality & Noise Consulting. *Construction Noise & Groundborne Vibration Technical Memorandum – Oakdale-Waterford Highway Bridge over Claribel Lateral (Bridge #38C-0078), Stanislaus County*. 2021
- Duke Cultural Resource Management, LLC. *Archeological Survey Report – Oakdale-Waterford Highway over Claribel Lateral Bridge Replacement Project*. 2022
- GPA Consulting. *Aquatic Resources Delineation Report - Oakdale-Waterford Highway over Claribel Lateral Bridge Replacement Project, Stanislaus County, California*. 2021
- GPA Consulting. *Natural Environment Study (Minimal Impacts)- Oakdale-Waterford Highway over Claribel Lateral Bridge Replacement Project, Stanislaus County, California*. 2022
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- GPA Consulting. *Farmland Impacts Technical Memorandum - Oakdale-Waterford Highway over Claribel Lateral*. 2022
- GPA Consulting. *Finding of No Adverse Effect for the Oakdale-Waterford Highway over Claribel Lateral Bridge (Bridge No. 38C-0078) Replacement Project*. 2023
- GPA Consulting. *Historic Property Survey Report - Oakdale-Waterford Highway over Claribel Lateral Bridge Replacement Project.* 2023
- GPA Consulting. *Land Use and Community Impacts Memorandum - BRLS-5938 (259) – Oakdale-Waterford Highway over Claribel Lateral Bridge Replacement*. 2022
- GPA Consulting. *Traffic Memorandum - BRLS-5938 (259) – Oakdale-Waterford Highway over Claribel Lateral Bridge Replacement*. 2022

- GPA Consulting. *Water Quality Technical Memorandum - BRLS-5938 (259) – Oakdale-Waterford Highway over Claribel Lateral Bridge Replacement*. 2022
- Sierra Geotech DBE Inc. *Hazardous Waste Initial Site Assessment - Oakdale-Waterford Highway over Claribel Lateral Bridge Replacement*. 2023

Appendix A Natural Resources Conservation Service Farmland Conversion Impact Rating Analysis

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request **11/22/21**	4. Sheet 1 of **2**
1. Name of Project **Oakdale-Waterford Highway over Claribel Late**	5. Federal Agency Involved **Caltrans District 10**	
2. Type of Project **Bridge Replacement**	6. County and State **Stanislaus County, CA**	

PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS **2/28/22**	2. Person Completing Form **Philip Smith**
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES ☐ NO ☑		4. Acres Irrigated **380,590** / Average Farm Size **200**
5. Major Crop(s) **Almonds, Milk and Chickens**	6. Farmable Land in Government Jurisdiction Acres: **568,045** % **58.6**	7. Amount of Farmland As Defined in FPPA Acres: **406,921** % **41.9**
8. Name Of Land Evaluation System Used **California Revised Storie Index**	9. Name of Local Site Assessment System **N/A**	10. Date Land Evaluation Returned by NRCS **3/18/22**

PART III *(To be completed by Federal Agency)*	Alternative Corridor For Segment ____ Corridor A	Corridor B	Corridor C	Corridor D
A. Total Acres To Be Converted Directly	**0.14**			
B. Total Acres To Be Converted Indirectly, Or To Receive Services	**0.16**			
C. Total Acres In Corridor	**68.94**			
PART IV *(To be completed by NRCS) Land Evaluation Information*				
A. Total Acres Prime And Unique Farmland	**0**			
B. Total Acres Statewide And Local Important Farmland	**0**			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	**0.0000**			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	**55.9**			
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*	31			

PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))*	Maximum Points				
1. Area in Nonurban Use	15	**15**			
2. Perimeter in Nonurban Use	10	**10**			
3. Percent Of Corridor Being Farmed	20	**20**			
4. Protection Provided By State And Local Government	20	**20**			
5. Size of Present Farm Unit Compared To Average	10	**0**			
6. Creation Of Nonfarmable Farmland	25	**0**			
7. Availablility Of Farm Support Services	5	**0**			
8. On-Farm Investments	20	**20**			
9. Effects Of Conversion On Farm Support Services	25	**0**			
10. Compatibility With Existing Agricultural Use	10	**0**			
TOTAL CORRIDOR ASSESSMENT POINTS	160	**85**	**0**	**0**	**0**
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland (From Part V)	100	**31**	**0**	**0**	**0**
Total Corridor Assessment (From Part VI above or a local site assessment)	160	**85**	**0**	**0**	**0**
TOTAL POINTS *(Total of above 2 lines)*	260	**116**	**0**	**0**	**0**

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used?
SITE A	**0.30**	**3/15/22**	YES ☐ NO ☑

5. Reason For Selection:

To replace the existing aging structure with a new structure that is consistent with appropriate design standards for roadway geometry, hydraulics and structural integrity and the safety of the traveling public.

Signature of Person Completing this Part: Karimeh Juma — DATE **3/21/22**

NOTE: Complete a form for each segment with more than one Alternate Corridor

Clear Form

CORRIDOR - TYPE SITE ASSESSMENT CRITERIA

The following criteria are to be used for projects that have a linear or corridor - type site configuration connecting two distant points, and crossing several different tracts of land. These include utility lines, highways, railroads, stream improvements, and flood control systems. Federal agencies are to assess the suitability of each corridor - type site or design alternative for protection as farmland along with the land evaluation information.

(1) How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?
More than 90 percent - 15 points
90 to 20 percent - 14 to 1 point(s)
Less than 20 percent - 0 points

(2) How much of the perimeter of the site borders on land in nonurban use?
More than 90 percent - 10 points
90 to 20 percent - 9 to 1 point(s)
Less than 20 percent - 0 points

(3) How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than five of the last 10 years?
More than 90 percent - 20 points
90 to 20 percent - 19 to 1 point(s)
Less than 20 percent - 0 points

(4) Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?
Site is protected - 20 points
Site is not protected - 0 points

(5) Is the farm unit(s) containing the site (before the project) as large as the average - size farming unit in the County ? (Average farm sizes in each county are available from the NRCS field offices in each state. Data are from the latest available Census of Agriculture, Acreage or Farm Units in Operation with $1,000 or more in sales.)
As large or larger - 10 points
Below average - deduct 1 point for each 5 percent below the average, down to 0 points if 50 percent or more below average - 9 to 0 points

(6) If the site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?
Acreage equal to more than 25 percent of acres directly converted by the project - 25 points
Acreage equal to between 25 and 5 percent of the acres directly converted by the project - 1 to 24 point(s)
Acreage equal to less than 5 percent of the acres directly converted by the project - 0 points

(7) Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?
All required services are available - 5 points
Some required services are available - 4 to 1 point(s)
No required services are available - 0 points

(8) Does the site have substantial and well-maintained on-farm investments such as barns, other storage building, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?
High amount of on-farm investment - 20 points
Moderate amount of on-farm investment - 19 to 1 point(s)
No on-farm investment - 0 points

(9) Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area?
Substantial reduction in demand for support services if the site is converted - 25 points
Some reduction in demand for support services if the site is converted - 1 to 24 point(s)
No significant reduction in demand for support services if the site is converted - 0 points

(10) Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural use?
Proposed project is incompatible to existing agricultural use of surrounding farmland - 10 points
Proposed project is tolerable to existing agricultural use of surrounding farmland - 9 to 1 point(s)
Proposed project is fully compatible with existing agricultural use of surrounding farmland - 0 points