Stantec

Milton Road over Rock Creek Tributary Bridge (No. 38C0231) Replacement Project

Initial Study/Mitigated Negative Declaration — Public Draft

March 1, 2023

Prepared for:
Stanislaus County Public Works Department
1716 Morgan Road,
Modesto, CA 95358

Prepared by:
Stantec Consulting Services Inc.
376 Hartnell Avenue, Suite B
Redding, California 96002

STN #2272001600

Proposed Mitigated Negative Declaration
Pursuant to: Division 13, Public Resources Code

PROJECT DESCRIPTION

Stanislaus County Public Works (County), in coordination with the California Department of Transportation (Caltrans), is proposing to replace the existing Milton Road over Rock Creek Tributary Bridge (Bridge No. 38C0231) with a two-lane bridge structure to provide improved safety and operations (Project). The bridge replacement would include a cast-in-place, two-lane, four-span, concrete slab bridge that would be constructed approximately 34 feet west of the existing alignment. Access would be maintained on the existing bridge while the new bridge is constructed.

DETERMINATION

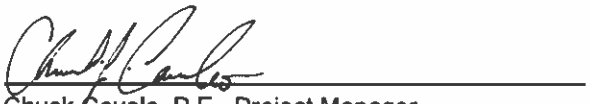
This proposed Mitigated Negative Declaration (MND) is included to give notice to interested agencies and the public that it is the County's intent to adopt an MND for this Project.

Stanislaus County has prepared an Initial Study for this Project and has determined from this study that the Project would not have a significant impact on the environment for the following reasons:

The Project would have no impact on energy, land use and planning; mineral resources; population and housing; public services, recreation; and tribal cultural resources.

The Project would have a less-than-significant impact on aesthetics; agriculture and forest resources; greenhouse gas emissions; hydrology and water quality; noise; transportation and traffic; utilities and service systems; and wildfire.

The Project would have less-than-significant impact with mitigation incorporated on air quality; biological resources; cultural resources; geology and soils; hazards and hazardous materials; and mandatory findings of significance.



Chuck Covolo, P.E., Project Manager
Stanislaus County Public Works Department

3/1/2023
Date

Project Information

1. Project Title:	Milton Road over Rock Creek Tributary Bridge (No. 38C0231) Replacement Project
2. Lead Agency Name and Address	Stanislaus County Public Works Department 1716 Morgan Road, Modesto, CA 95358
3. Contact Person, Phone Number/Email	Chuck Covolo, P.E., Project Manager (209) 353-5938 covoloc@stancounty.com
4. Project Location	Approximately 3.7 miles northeast of State Route 4, Stanislaus County, California; Section 26 of Township 2N, Range 10E on the *Bachelor Valley, California* 7.5-minute U.S. Geological Survey quadrangles; Assessor Parcel Numbers: 001-006-002, 001-006-017, and 001-006-018.
5. Project Sponsor's Name	Stanislaus County Public Works Department
6. General Plan Designation	Agriculture (AG)
7. Zoning	A-2-40 (General Agriculture, 40-acre parcels)

8. Description of Project

The Stanislaus County Public Works Department (County) proposes to improve public safety by replacing Rock Creek Tributary Bridge (No. 38C0231) on Milton Road with a new two-lane bridge to the west of the existing bridge. The project would be federally funded through the Federal Highway Bridge Program, which is administered by the California Department of Transportation (Caltrans) on behalf of the Federal Highway Administration. Caltrans is responsible for federal oversight of the project, which would be locally administered by the County. The existing bridge is County owned and maintained.

The County is proposing a four-span, cast-in-place, reinforced concrete slab bridge. The new bridge and road centerline would be offset to the west of the existing bridge by approximately 34 feet. Approximately 1,480 feet of the roadway would be modified to match the new bridge location and elevation. The new bridge and roadway approaches would meet the American Association of State Highway and Transportation Officials' *A Policy on Geometric Design of Highways and Streets.* The roadway approaches would be 32 feet wide, which includes 28 feet of paved roadway and 4 feet of unpaved/graded shoulder (i.e., two 11-foot-wide paved lanes and two 5-foot-wide shoulders consisting of 3 feet paved and 2 feet unpaved). With guard railing, the bridge would be approximately 32 feet wide (clear width of 28 feet) and 150 feet long.

The proposed bridge replacement and roadway modifications would take place partly in existing County rights-of-way and would require additional right-of-way (ROW). An estimated 0.91 acres (39,700 square feet) of new ROW are anticipated to be acquired from one private landowner. An estimated 0.59 acres (25,900 square feet) of temporary construction easements may also be necessary from the landowner for staging and other activities. ROW fencing would be removed and replaced with a similar fence along the

new ROW. One existing irrigation and drainage structure would be extended. An existing concrete headwall and energy dissipation pool located on the west side of Milton Road, south of the existing bridge, at approximate station 103+50 would be removed. The existing 24-inch pipe would be extended approximately 16 feet to the west, and a new concrete headwall and energy dissipation/angle point would be constructed that ties into the existing irrigation/drainage channel. Rock slope protection (RSP) would be used in front of the existing abutments down to the toe of slope. A telephone conduit on the west side of the existing bridge and a buried fiber optic line on the east side of the bridge would need to be relocated to the new bridge during construction. The County would coordinate the relocation with the construction contractor and utility company. The existing bridge would be demolished and the old roadway approaches would be decommissioned and removed from the project area as construction progresses.

9. Surrounding Land Uses and Setting

The project study area consists of a paved road (i.e., Milton Road) with graveled road shoulders, annual grassland habitat with scattered seasonal wetlands, and riverine. Milton Road is a rural road in an unincorporated area of Stanislaus County that provides access to several residences and ranches. The area is characterized by low rolling hills comprised largely of annual grasslands. Land uses in the area include ranchlands, agriculture, and rural residential developments.

10. Other Public Agencies Whose Approval May Be Required (e.g., permits, financing approval, or participation agreement.)

- Federal Highway Administration
- California Department of Transportation, District 10 (funding authorization)
- U.S. Army Corp of Engineers, Sacramento District (Clean Water Act Section 404 Nationwide Permit)
- U.S. Fish and Wildlife Service, Sacramento Fish And Wildlife Office (Endangered Species Act compliance)
- California Department of Fish & Wildlife, Region 4 (Streambed Alteration Agreement)
- California State Regional Water Quality Control Board, Central Valley Region (Clean Water Act Section 401 Water Quality Certification and Section 402 General Construction Activity Storm Water Permit)

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Acronyms and Abbreviations

°F	degrees Fahrenheit
ACM	asbestos-containing materials
ADI	area of direct impact
ADL	aerially deposited lead
APE	area of potential effects
BMP	best management practice
BSA	biological study area
CAC	Certified Asbestos Consultant
Cal/OSHA	California Division of Occupational Health and Safety
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CNDDB	California Natural Diversity Database
County	Stanislaus County Public Works Department
CWA	Clean Water Act
dBA	decibels A-weighted
DWR	Department of Water Resources
EPA	federal Environmental Protection Agency
ESA	environmentally Sensitive Area
GHG	greenhouse gases
HEPA	high-efficiency particulate absorbing
IS	Initial Study
ISA	Initial Site Assessment
MMRP	Mitigation Monitoring and Reporting Program
MND	Mitigated Negative Declaration
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NOA	naturally occurring asbestos
NOx	oxides of nitrogen
NPDES	National Pollution Discharge Elimination System
OHWM	ordinary high water mark

PM_{10}	particulate matter 10 microns or less
$PM_{2.5}$	particulate matter 2.5 microns or less
project	Rock Creek Tributary Bridge on Milton Road Replacement Project
ROW	right-of-way
RSP	Rock slope protection
RWQCB	Regional Water Quality Control Board
SJVAPCD	San Joaquin Valley Air Pollution Control District
SSC	species of special concern
SWPPP	Storm Water Pollution Prevention Plan
TAC	toxic air contaminants
USFWS	U.S. Fish and Wildlife Service
WSE	water surface elevation
XPI	Extended Phase I Investigation

1. INTRODUCTION

1.1 Introduction and Regulatory Guidance

This document is an Initial Study (IS) that summarizes the technical studies prepared for the proposed Milton Road over Rock Creek Tributary Bridge (No. 38C0231) Replacement Project (project). It includes an evaluation of potential environmental impacts that could result from project implementation and provides justification for a Mitigated Negative Declaration (MND) for the project. This document was prepared in accordance with the current California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq., and the State CEQA Guidelines (14 California Code of Regulations 1500 et seq.) that require all state and local government agencies to consider the environmental consequences of projects over which they have discretionary authority before acting on those projects. Conservation measures and mitigation measures are proposed to avoid or minimize any significant impacts that are identified.

1.2 Lead Agency

The lead agency is the public agency with primary responsibility for implementing or approving a project. The Stanislaus County Public Works Department (County) is the CEQA Lead Agency. The project would receive funding through federal and state sources and would require approvals from Federal Highway Administration and California Department of Transportation (Caltrans). The Federal Highway Administration has designated Caltrans as the National Environmental Policy Act (NEPA) lead agency on its behalf. NEPA approval would be a Categorical Exclusion supported by technical studies.

1.3 Supporting Technical Studies

The technical studies listed below are available for review at the County. Please contact:

Chuck Covolo, P.E., Project Manager
Stanislaus County Public Works Department
1716 Morgan Road
Modesto, CA 95358
Phone: (209) 525-4101

Technical studies conducted for this project are available to the public upon request (with the exception of the cultural resources reports) include:

- Archaeological Survey Report/Historic Property Survey Report; Extended Phase 1 Archaeological Evaluation Report; Environmentally Sensitive Area Action Plan; and Finding of No Adverse Effect Document (These reports are confidential and available to qualified readers only)
- Natural Environment Study Report
- Biological Assessment
- Delineation of Potential Waters of the United States Report
- Foundation Report
- Initial Site Assessment
- Floodplain Evaluation Report

- Community Impact Assessment
- Water Quality Technical Memorandum

1.4 Document Organization

The IS consists of the following chapters:

- **Chapter 1.0 – Introduction** describes the purpose and content of this document.
- **Chapter 2.0 – Project Description** provides a comprehensive description of the project, tentative schedule, and required permit approvals.
- **Chapter 3.0 – Environmental Impacts and Mitigation Measures** describes the environmental impacts of the project using the CEQA Environmental Checklist. Where appropriate, mitigation measures are provided that would reduce potentially significant impacts to a less-than-significant level.
- **Chapter 4.0 – Determination** provides the environmental determination for the project.
- **Chapter 5.0 – Mitigation Monitoring and Reporting Program** provides a comprehensive list of all conservation measures and project-specific mitigation measures proposed for the project, along with timing/implementation, enforcement responsibility, and monitoring responsibility.
- **Chapter 6.0 – Report Preparation** identifies the individuals responsible for preparation of this document.
- **Chapter 7.0 – References** provides a list of references used to prepare this document.

2. PROJECT DESCRIPTION

2.1 Location

The project is located approximately 3.7 miles northeast of State Route 4 and approximately 0.5 miles southwest of the Stanislaus/Calaveras County line, in northeastern Stanislaus County, California. The project study area encompasses 6.4 acres, as shown on the *Bachelor Valley, California* 7.5-minute U.S. Geological Survey quadrangle in Township 2 North, Range 10 East, Section 26. The approximate center of the proposed project is at latitude 37.99533°, longitude–120.84897° (North American Datum 83) (Figure 1).

2.2 Existing Facility Conditions

The Rock Creek Tributary Bridge (38C0231), constructed on Milton Road in 1918, was originally a seven-span structure approximately 143 feet long and 17 feet wide consisting of reinforced concrete "T" beams. In 1968, the bridge was widened on both sides with reinforced concrete slabs to a total width of 32.8 feet. The foundations consist of spread footings at all bents and abutments. In 1990, supplemental concrete columns were constructed at piers 3, 5, and 6. The bridge has metal beam guardrails on steel posts, but no approach guardrails.

Milton Road is a two-lane paved rural road that travels in a north–south direction; the terrain in the vicinity of the project area is generally flat. The road is designated as a major collector and is classified as an Off-System Local Road by Caltrans. It is used by local travelers accessing nearby communities and ranch properties. Average daily traffic was estimated at 706 vehicles in 2006 and is predicted to increase to 909 vehicles by 2032. The design speed for the section of Milton Road in the project area is 55 miles per hour.

2.3 Project Purpose and Need

The proposed project is included in the Stanislaus County Capital Improvement Plan (Fiscal Year 2013-14) and the Federal Statewide Transportation Improvement Program and is being funded by a combination of Highway Bridge Program funds administered by Caltrans and local County funds. The purpose of the project is to improve traffic safety conditions and to comply with current County and American Association of State Highway and Transportation Officials guidelines by (1) replacing a structurally deficient bridge with a new structure that meets current standards, (2) raising the elevation of the new bridge to accommodate flood flows, and (3) adjusting the road geometry approaching the new bridge to match the new bridge alignment.

The 2019 Caltrans Inspection Report shows the bridge has a sufficiency rating of 64.2 and previous inspection reports showed a sufficiency rating of 50.0, which made the bridge eligible only for rehabilitation unless justification for replacement is provided to and approved by Caltrans. In 2014, the County submitted to Caltrans justification for replacement based on the age of the existing bridge (more than 80 years old) and its deteriorating condition, and Caltrans approved the justification for replacement.

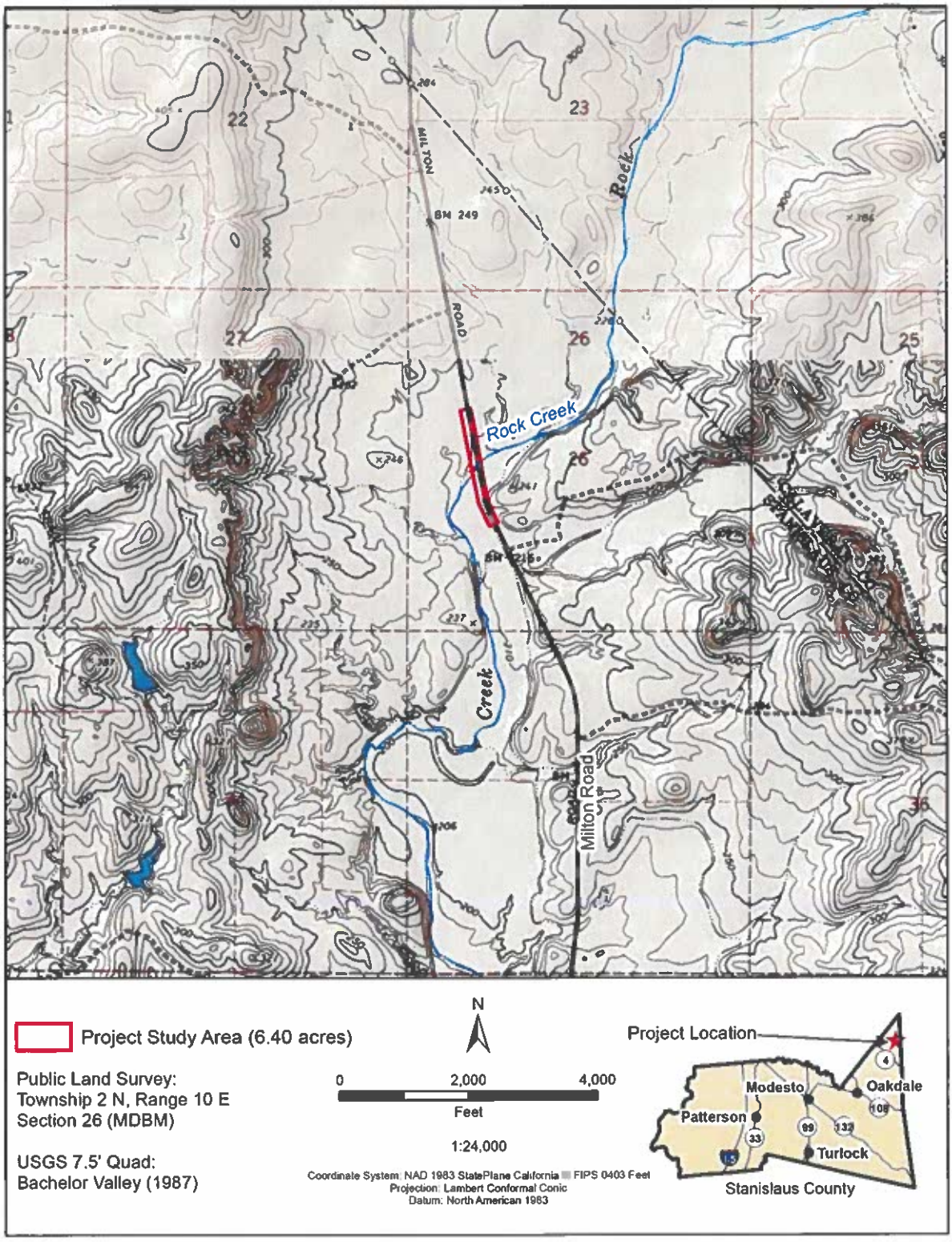


Figure 1. Project Location

2.4 Proposed Project

Replacement of Existing Structure

The proposed bridge is a four-span, cast-in-place, reinforced concrete slab structure. The new bridge and road centerline would be offset to the west of the existing bridge by approximately 34 feet. Approximately 1,480 feet of the roadway would be modified to match the new bridge location and elevation. The new bridge and roadway approaches would meet the American Association of State Highway and Transportation Officials' *A Policy on Geometric Design of Highways and Streets*. The roadway approaches would be 32 feet wide, which includes 28 feet of paved roadway and 4 feet of unpaved/graded shoulder (i.e., two 11-foot-wide paved lanes and two 5-foot-wide shoulders consisting of 3 feet paved and 2 feet unpaved). With guard railing, the bridge would be approximately 32 feet wide (clear width of 28 feet) and 150 feet long.

The new bridge would be supported on concrete abutments founded on small-diameter cast-in-drilled hole piles and three piers with cast-in-drilled hole pile extensions. The abutments would be approximately 35 feet long by 8 feet wide and would be placed adjacent to the existing abutments to minimize conflicts with the existing foundations. The abutments would be installed outside of the active creek channel. The piers would be 24-inch diameter pile extensions and would be placed in the creek channel to support the bridge superstructure soffit. The new soffit would be approximately 3 feet higher than the existing bridge to accommodate the 100-year storm water surface elevation. Metal beam guardrails and bridge railing would be installed along the bridge.

Temporary falsework (temporary form work used to support the concrete until it develops strength) would be required in the creek for construction of the cast-in-place bridge. All falsework materials would be removed after the bridge is in place. Construction of the bridge abutments would require two excavation areas up to approximately 35 feet wide by 10-12 feet long by 15-20 feet deep. Cast-in-drilled hole piling would be needed for pier and abutment installation. An estimated 200-400 cubic yards of material would be excavated, and approximately 3,200 cubic yards of imported fill would come from local commercial sources. Demolition materials (e.g., old bridge pieces) would be removed and disposed of off-site at an appropriate facility.

Roadway modifications would involve realigning Milton Road between existing curves north and south of the bridge. North of the new bridge, a set of reversing horizontal curves would provide the roadway transition between the new bridge and the northern roadway conform point. This transition north of the bridge would be approximately 700 feet long. South of the bridge, a single horizontal curve would be used to align the road between the existing roadway and the new bridge. The transition south of the bridge would be approximately 780 feet long. The new roadway approaches would be paved to conform to the existing roadway condition.

Existing features that would be impacted by the project footprint would be replaced in kind. Right-of-way (ROW) fencing would be removed and replaced with a similar fence along the new ROW. One existing irrigation and drainage structure would be extended. An existing concrete headwall and energy dissipation pool located on the west side of Milton Road, south of the existing bridge, at approximate station 103+50 would be removed. The existing 24-inch pipe would be extended approximately 16 feet to the west, and a new concrete headwall and energy dissipation/angle point would be constructed that ties

into the existing irrigation/drainage channel. Rock slope protection (RSP) would be used in front of the existing abutments down to the toe of slope.

The shifting of the bridge centerline would allow both directions of traffic on the existing bridge to remain open during the majority of work. Traffic control measures would be used to alert travelers to the roadwork and control traffic speed and flow through the project study area.

A small dozer would be used to grade the staging area and access to the creek. A backhoe and/or bobcat would be used to remove debris and material. Concrete trucks and long-reach concrete pump trucks would be used. Other equipment may include cranes, concrete breakers, excavators, paving equipment, light trucks, man-lifts, generators, hoe ram, jackhammers, saw-cut machines, crane, and drill rig.

Right-of-Way

The proposed bridge replacement and roadway modifications would take place primarily within existing County rights-of-way and would require additional ROW (Figure 2). An estimated 0.59 acres (25,900 square feet) of temporary construction easements may also be necessary from the landowner for staging and other activities. Assessor Parcel Numbers included in the project area are 001-006-002, 001-006-017, and 001-006-018.

Utilities

A CVIN telecommunications conduit on the west side of the existing bridge and a buried fiber optic line on the east side of the bridge may need to be relocated to the new bridge during construction. The County would coordinate the relocation with the construction contractor and utility company. Temporary, short-term disruptions of utility service may occur during the relocation. All potentially affected property owners would be notified by the County, the utility company, or the construction contractor approximately one week prior to the service interruption. No other utility relocations are anticipated.

Other Construction Activities

Dewatering

Depending on stream flows at the time of construction, a temporary water diversion may be required. Project construction activities are anticipated to occur between June and October, with all in-water activities completed during the summer/early fall months when water levels are at their lowest and flood risks are least likely. The water diversion system may include screened pumps, a temporary pipe network, siltation baffles, and cofferdams to route flow through or around the immediate work area to the downstream channel. The dewatering would include measures provided in regulatory agency permits to avoid or minimize impacts on aquatic resources. Water present in the work areas would either be treated per Storm Water Pollution Prevention Plan requirements or disposed of per Regional Water Quality Control Board (RWQCB) requirements.

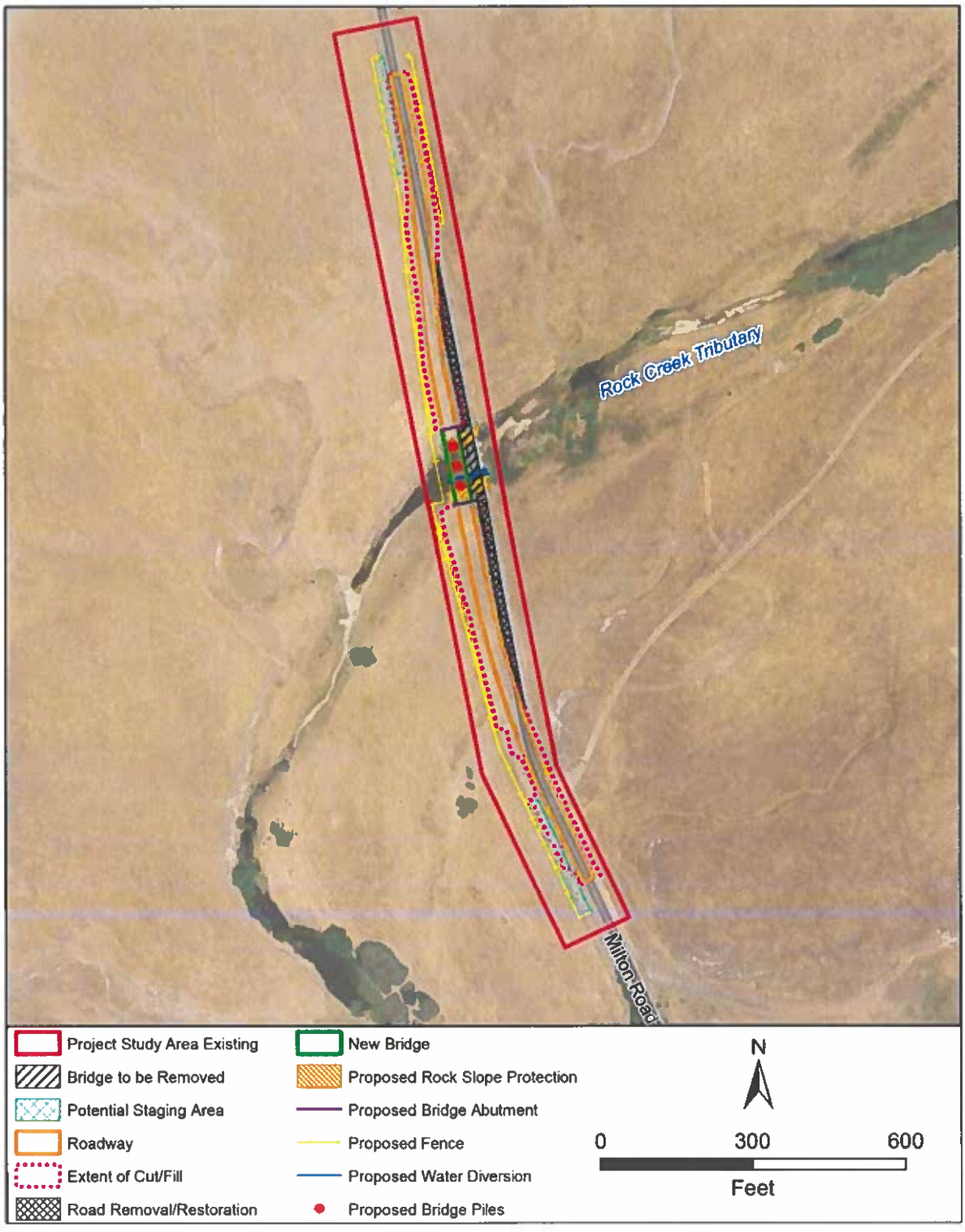


Figure 2. Project Design

Construction Access and Contractor Staging

Two staging areas are proposed along the west side of Milton Road. Each staging area would encompass approximately 0.1 acre. Milton Road would serve as the access route to the project study area. Some access along Rock Creek would be needed to remove the existing bridge and install RSP. No designated disposal or borrow sites would be required to complete the project. All construction debris, including wash water and removed pavement, would be disposed of per state and County codes.

Site Considerations

During construction, the area of vegetation clearing would be minimized and would be confined to the project footprint, including grading locations, construction access roads, and staging areas. No tree removal would be required. Environmentally sensitive areas would be flagged and designated to prevent impact by construction activities. All environmentally sensitive areas are to be avoided by all construction activities, material, and personnel. After construction is complete, creek bank, access roads, staging area, and any other disturbed areas would be restored to preconstruction conditions.

Sequencing

Construction activities associated with the proposed project would be completed in a single construction season (i.e., one year). Construction activities would include demolishing the current bridge and constructing a new bridge and associated infrastructure. Construction is expected to start once all required approvals have been obtained, which is anticipated to be in June 2024.

Construction activities would generally occur in the following sequence:

- delineation of environmentally sensitive areas and staging areas;
- site clearing, preparation, and earthwork;
- construction of new bridge foundations, abutments, deck, and guardrails;
- modification of bridge approaches along Milton Road;
- sign installation and pavement striping;
- installation of RSP at abutments, where necessary;
- removal of the existing bridge and roadway pavement; and
- revegetation of disturbed areas and former roadway.

Bridge Demolition/Roadway Approach Abandonment

Demolition of the existing bridge would be performed in accordance with the Caltrans Standard Specifications modified to meet environmental permit requirements. All concrete and other debris resulting from the demolition of the existing bridge and roadway approaches would be removed from the project site and disposed of by the contractor. The construction contractor would be responsible for preparing a bridge demolition plan that conforms to the permit requirements.

Within areas of the existing roadway that would be abandoned by the realignment of Milton Road, the existing pavement would be removed and sent to a construction material recycling facility. These areas would be scarified, graded, and compacted to conditions similar to the surrounding areas. Erosion control measures such as hydroseeding or placement of bonded fiber matrix would be placed to provide slope stability and prevent invasive plant establishment.

2.5 Conservation Measures

The following conservation measures and best management practices (BMPs) would be followed during project construction to avoid or minimize potential environmental impacts:

Conservation Measure #1: Erosion and Sedimentation Control

Erosion control measures would be implemented during construction of the project. These measures conform to the provisions in Section 21 of the Caltrans Standard Specifications (Caltrans 2018) and the special provisions included in the contract for the project. Such provisions include the preparation of a Storm Water Pollution Prevention Plan or Water Pollution Control Program depending on size of the area of disturbance, these plans would describe and illustrate the use of BMPs to be implemented at the project site.

Erosion control measures to be included in the Storm Water Pollution Prevention Plan, Water Pollution Control Program, or to be implemented by the County include the following:

- To the extent practicable, activities that increase the erosion potential will be restricted to the relatively dry summer and early fall period to minimize the potential for rainfall events to transport sediment to surface water features. If these activities must take place during the late fall, winter, or spring, then temporary erosion and sediment control structures will be in place and operational at the end of each construction day and will be maintained until permanent erosion control structures are in place.

- Vegetation clearing and ground-disturbing activity will be limited to the minimum area necessary for project implementation.

- Areas where woody vegetation needs to be removed will be identified in advance of ground disturbance and will be limited to only those areas that have been approved by the County. Within 10 days of completion of construction in those areas, weed-free mulch will be applied to disturbed areas to reduce the potential for short-term erosion. Prior to a rain event, or when weather forecasts by the National Weather Service indicate a greater than 50 percent possibility of rain within the next 24 hours, weed-free mulch will be applied to all exposed areas at the completion of the day's activities. Soils will not be left exposed during the rainy season.

- Suitable BMPs, such as silt fences, straw wattles, or catch basins, will be placed below all construction activities at the edge of surface water features to intercept sediment before it reaches the waterway. These structures will be installed prior to any clearing or grading activities. Erosion control measures that employ monofilament netting will be prohibited within the work area.

- If spoil sites are used, they will be sited such that they do not drain directly into a surface water feature, if possible. If a spoil site drains into a surface water feature, catch basins will be constructed to intercept sediment before it reaches the feature. Spoil sites will be graded and vegetated to reduce the potential for erosion.

- Sediment control measures will be in place prior to the onset of the rainy season and will be monitored and maintained in good working condition until disturbed areas have been revegetated.

- All disturbed areas will be restored to preconstruction contours and revegetated, either through hydroseeding or other means, with native or approved non-invasive exotic species.

Conservation Measure #2: Prevention of Accidental Spills

Construction specifications would include the following measures to minimize the potential for adverse effects resulting from accidental spills of pollutants (e.g., fuel, oil, grease):

- A site-specific spill prevention plan would be completed and implemented for all potentially hazardous materials. This would include containment methods for any use of concrete or other hazardous materials according to Caltrans Standard Specifications (2018) Section 14-11.03. The plan would include the proper handling and storage of all potentially hazardous materials, including concrete, as well as the proper procedures for cleaning up and reporting any spills. If necessary, containment berms would be constructed to prevent spilled materials from reaching surface water features.
- Equipment and hazardous materials would be stored at least 50 feet away from all waterways.
- Vehicles and equipment used during construction would receive proper and timely maintenance to reduce the potential for mechanical breakdowns leading to a spill of materials. Maintenance and fueling would be conducted in an area at least 50 feet away from waterways or within an adequate fueling containment area.
- For removal of the existing bridge, it would be required to submit a debris containment and collection plan per Caltrans Standard Specifications (2018) Section 14-11.13B (2). The plan must include shop drawings of containment systems complying with Section 59-2.01C (2) and include the name and location of the disposal facility that would accept any hazardous waste if determined to be present.

Conservation Measure #3: Prevention of Spread of Invasive Species

Construction specifications would include a requirement to prevent the spread of invasive plants in the work area. The contractor would implement the following measures:

- All equipment used for off-road construction activities will be weed free prior to entering the project area.
- If project implementation calls for mulches or fill, they will be weed free.
- Any seed mixes or other vegetative material used for revegetation of disturbed sites will consist of locally adapted native plant materials to the extent practicable.

Conservation Measure #4: General Measures for Protection of Special-Status Wildlife Species

The County would implement the following general conservation measures to avoid or minimize the potential for adverse effects on special-status wildlife species:

- Prior to initiation of construction activities, workers will participate in environmental awareness training provided by a qualified biologist. The training will instruct workers: 1) how to identify special-status species, their various life forms, their habitat components; 2) the potential for these species to be discovered and/or affected during construction activities; 3) how to identify sensitive habitats (e.g., wetlands, riparian); and 4) what to do if special-status species are encountered during construction activities.
- Construction access and equipment will be located on existing roads or previously disturbed parking areas.
- Vehicle speeds within off-road portions of the work area will not exceed 15 mph to avoid collisions with wildlife.
- Disturbance of soil, vegetation, naturally occurring debris piles (including fallen trees, woodrat nests, or dead tree snags), rocky outcrops, and existing burrows or crevices will be avoided or minimized to the extent possible.
- To the extent practicable, all holes or trenches will be covered at the end of each workday to prevent wildlife from becoming trapped. All holes and trenches will be inspected before each workday to facilitate the release of any trapped wildlife. A qualified biologist will be consulted if work crews are unable to safely assist in the release of trapped wildlife.
- To minimize attractants to wildlife, trash will be stored in containers that can be closed and latched or locked to prevent access by wildlife. All loose trash will be cleaned up daily.

Conservation Measure #5: Human Remains

Surface surveys are not infallible and buried resources may be overlooked. Implementation of the following conservation measures will avoid or minimize the potential for significant effects to newly discovered resources:

- If human remains are discovered during project activities, all activities near the find will be suspended and the Stanislaus County Sheriff–Coroner will be notified. If the coroner determines that the remains may be those of a Native American, the coroner will contact the Native American Heritage Commission (NAHC). Treatment of the remains will be conducted in accordance with the direction of the County Coroner and/or NAHC as appropriate.

Conservation Measure #6: Greenhouse Gas Emissions

Construction contract documents include provisions to minimize project-related greenhouse gas (GHG) emissions. The following measures would be implemented to reduce construction-related GHG emissions:

- Reuse and recycle construction and demolition waste including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard.
- Check that the project enhances, and does not disrupt or create barriers to, non-motorized transportation (e.g., bicycles, pedestrians) through proper preconstruction planning.

- Protect existing trees to the extent possible and encourage the planting of new trees.

Conservation Measure #7: Wildfire Potential

Construction contract documents include measures to minimize project-related potential for wildfire ignition:

- Per the requirements of Public Resources Code Section 4442, the County will include a note on all construction plans that internal combustion engines will be equipped with an operational spark arrester, or the engine must be equipped for the prevention of fire.

2.6 Tentative Schedule

Construction would require one season to complete. It is anticipated to start in the spring of 2024 pending receipt of required environmental approvals, regulatory permits, and availability of project funding, and the bridge would be completed in approximately 8–10 months, ending in late 2024.

2.7 Required Permits and Approvals

The following permits would be required to implement the project:

- U.S. Army Corps of Engineers – Sacramento District: Section 404 Nationwide Permit 14 (Linear Transportation Projects)
- U.S. Fish and Wildlife Service – Pacific Southwest Region (Sacramento Fish And Wildlife Office): Federal Endangered Species Act Compliance
- Caltrans National Environmental Policy Act Determination (Categorical Exclusion [pursuant to 23 CFR 221.117(c)] issued March 17, 2021)
- California Department of Fish and Wildlife – Region 4: Section 1602 Streambed Alteration Agreement
- Central Valley Regional Water Quality Control Board: Section 401 Water Quality Certification
- Stanislaus County CEQA Notice of Determination to adopt the Initial Study/Mitigated Negative Declaration

3. ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

This chapter incorporates the Environmental Checklist contained in Appendix G of the CEQA Guidelines, including the CEQA Mandatory Findings of Significance. Each resource section provides a brief description of the setting, a determination of impact potential, and a discussion of the impacts. Where appropriate, mitigation measures are provided to reduce potential impacts to a less-than-significant level. A discussion of cumulative impacts is included at the end of this chapter.

Addressed in this section are the following 20 environmental categories and mandatory findings of significance:

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

Each of these issue areas was fully evaluated and one of the following four impact determinations was made:

- **No Impact:** No impact to the environment would occur as a result of implementing the proposed project.
- **Less-than-Significant Impact:** Implementation of the proposed project would not result in a substantial and adverse change to the environment and no mitigation is required.
- **Less than Significant with Mitigation Incorporated:** A "significant" impact that can be reduced to a less-than-significant level with the incorporation of project-specific mitigation measures.
- **Potentially Significant Impact:** Implementation of the proposed project could result in an impact that has a "substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project" (CEQA Guidelines Section 15382).

3.1 Environmental Setting

Regional Setting

The site is located within San Joaquin Valley and near the eastern margin of the Great Valley geomorphic province of California. The Great Valley is located within the central portion of California and is an alluvial plain roughly 50 miles wide located between the Coast Ranges on the west and the Sierra Nevada on the

east. It is a northwest trending structural trough about 400 miles long that was formed by the westward tilting of the Sierra Nevada block.

Local Setting

The 6.40-acre project site is located along Milton Road at its intersection with Rock Creek Tributary, approximately 3.7 miles northeast of its intersection with State Route 4. The area is characterized by low rolling hills largely made up of annual grasslands. Milton Road is a collector that connects State Route 4 to the Calaveras County line. The road is mainly used for local access to residences and ranchlands. The average daily traffic on Cooperstown Road near Gallup Creek was approximately 700 trips per day in 2006. The project area is largely bounded by rural residential and ranchlands.

Climate

The climate is Mediterranean, with cool, wet winters and hot, dry summers. Precipitation in the region primarily falls as rain, with an average annual rainfall of approximately 13 inches. Air temperatures range from an average January low of 35 degrees Fahrenheit (°F) to an average July high of 96°F. The annual average temperature is approximately 60°F (Western Regional Climate Center 2019). The growing season (i.e., 50 percent probability of air temperature 28°F or higher) in the project area is year-round. The soil temperature regime is thermic.

Existing Land Uses

Milton Road crosses Rock Creek Tributary approximately 3.7 miles northeast of State Route 4. Milton Road is generally used for local access to residences and ranchlands. The project area is largely bounded by rural residential and ranchlands. Lands immediately adjacent to the project study area are zoned as A-2-40 (General Agriculture, 40-acre parcels).

Topography

The topography of the project area immediately adjacent to the Rock Creek Tributary is nearly level; however, the topography rises slightly northwest of Milton Road in the project area. Rock Creek Tributary bisects the project area, which is the only drainage in the project area. Elevations in the project study area range from approximately 200 to 250 feet above mean sea level.

Agricultural Resources

Agricultural lands are an important contributor to the economic base of Stanislaus County. The results of the U.S. Department of Agriculture (USDA, 2012) agricultural census indicate that Stanislaus County contains 4,143 farms totaling 768,046 acres. Approximately 85 percent of Stanislaus County supports productive and potentially productive agricultural land. The average farm size in the County was 185 acres, a decrease of 4 percent from the average farm size in 2007. The average market value of a farm in Stanislaus County in 2012 was $537,807 (USDA 2012), an increase of 18 percent since the 2007. In 2015 the total amount of rangeland in the County was 421,949 acres (Stanislaus County 2016). The leading agricultural commodity in profit in Stanislaus County continues to be almonds, followed by milk and cattle and calves (Stanislaus County 2016). In addition, Stanislaus County is ranked first in the state for production of apricots and turkeys, and dry beans, and second in the state in almonds, chicken eggs, grain hay, honey, and walnuts (Stanislaus County 2016).

Air Quality

The project is located within the San Joaquin Valley Air Basin and is under the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD). No additional capacity is proposed for the project (no new through- or turn-lanes) and the project would not result in any new trips, vehicle miles traveled, or vehicle hours traveled in the permanent condition. Table 1 of the Caltrans Transportation Project Level Carbon Monoxide Protocol lists specific types of projects that are exempt from all emissions analyses for determining air quality conformity. Included in the list is "Widening narrow pavements or reconstructing bridges (no additional travel lanes)". Additionally, since the project is consistent with these requirements, the project would not be increasing operational traffic and it is assumed to be consistent with SJVAPCD and is exempt from local conformity review.

Hydrological Setting

Surface Waters

Rock Creek, the primary drainage feature in the project area, is a perennial stream that bisects the project area, and flows east to west under the existing bridge. Water levels in Rock Creek are controlled by the Salt Spring Valley Reservoir Dam, located approximately 6 miles northeast of the project area, which limits the extent of the creek's floodplain. Salt Spring Valley Reservoir near the community of Copperopolis in Calaveras County is a 1,000 acre privately-owned reservoir used for camping and fishing for warm-water species. The hydrology of this creek is likely provided by sheet flow, springs, and groundwater. Rock Creek in the project study area has an approximate average depth of 1 to 2 feet, and is approximately 80 to 100 feet wide at the ordinary high water mark (OHWM). Rock Creek flows southwest approximately nine miles until it reaches the Farmington Dam, which is a significant impoundment and is impassible to anadromous fish species. Water released from Farmington Dam into Rock Creek then travels approximately two miles southwest until its confluence with Little Johns Creek. Little Johns Creek then travels approximately 17 miles and drains to French Camp Slough. French Camp Slough then meanders for approximately six miles west until it meets the San Joaquin River, which is a traditional navigable water.

According to the Tuolumne-Stanislaus Draft Integrated Water Management Plan (Kennedy Jenks Consultants 2013) Rock Creek at the project site is within the Upper Rock Creek-French Camp Slough Watershed draining an approximately 110-square mile area.

There are no known water quality assessments of Rock Creek or Salt Spring Valley Reservoir (EPA 2013, SWRCB 2012, Kennedy Jenks Consultants 2013). There is also no gauge data available regarding pathogens, nutrients, or sediment.

Rock Creek is not considered impaired under Clean Water Act (CWA) Section 303(d) (SWRCB 2012), nor is Salt Spring Valley Reservoir. Littlejohn Creek, a receiving water for Rock Creek located approximately 11 miles downstream of the project area, is listed as a Section 303(d) impaired water body for *E. coli* bacteria and unknown toxicity.

Groundwater

The proposed project study area is located in the San Joaquin Valley Groundwater Basin – Eastern San Joaquin Sub-basin (Sub-basin Number 5-22.01), which covers approximately 707,000 acres or 1,105

square miles. The Eastern San Joaquin sub-basin lies between the Mokelumne River to the north and northwest; San Joaquin River on the west; Stanislaus River on the south, and consolidated bedrock on the east. According to calculations made by the California Department of Water Resources (DWR) and cooperators, the total storage capacity of this sub-basin is estimated to be 42,400,000 acre-feet (af) to the base of the groundwater basin. A study by the U.S. Bureau of Reclamation estimated the 1990 annual groundwater extraction in San Joaquin County to be about 731,000 af/year, which exceeds the estimated safe yield of 618,000 af/year. This results in an estimated overdraft of 113,000 af/year (DWR 2004).

Existing groundwater quality in this basin is characterized as being calcium-magnesium bicarbonate or calcium-sodium bicarbonate types. Bicarbonate is the predominant anion in the eastern part of the basin. Based on analyses of 174 water supply wells in the sub-basin, total dissolved solids range from 30 to 1,632 mg/L and averages about 310 mg/L. Large areas of elevated nitrate in groundwater exist within the sub-basin located southeast of Lodi and south of Stockton and east of Manteca extending toward the San Joaquin – Stanislaus County line (DWR 2004).

Soils

Two soil map units occur in the project area. They are described in the *Soil Survey of Stanislaus County, California, Northern Part* (Natural Resources Conservation Service 2020) and are summarized below.

- **Peters-Pentz association, 2-8 percent slopes (401).** This is a non-hydric, well-drained tuffaceous, clayey soil derived from volcanic sandstone. The depth to its paralithic bedrock restrictive layer is 10-20 inches.
- **Archerdale-Hicksville association, 0-2 percent slopes (301).** This is a non-hydric, well-drained clayey alluvium soil derived from igneous, metamorphic and sedimentary rocks. This soil has no characterized depth to restrictive layer.

Geology

Published geologic mapping shows surface materials at the site as undifferentiated Pleistocene (Quaternary) age Modesto and Riverbank Formation that generally consist of semiconsolidated silt, silty clay, sand and gravel deposits. Within the immediate stream channel, surface materials are shown as recent alluvium that consists of clay, silt, sand, gravel, and cobble size materials.

Bordering the site on the south and east, the Oligocene (Tertiary) age Valley Springs formation that generally consists of ryholitic tuff, sandy clay and siliceous gravel is present. Several hundred feet west of the site, the referenced mapping shows Oligocene (Tertiary) age Mehrten Formation that consists of moderately indurated andesitic conglomerates, sandstone and breccia.

Vegetation Community Types

Habitat communities in the project site were classified based on habitat descriptions provided in *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer 1988) and the results of the field survey. A total of two habitat types were identified in the project study area which include annual grassland, barren, and riverine (Figure 3). Descriptions of these habitats are provided below.

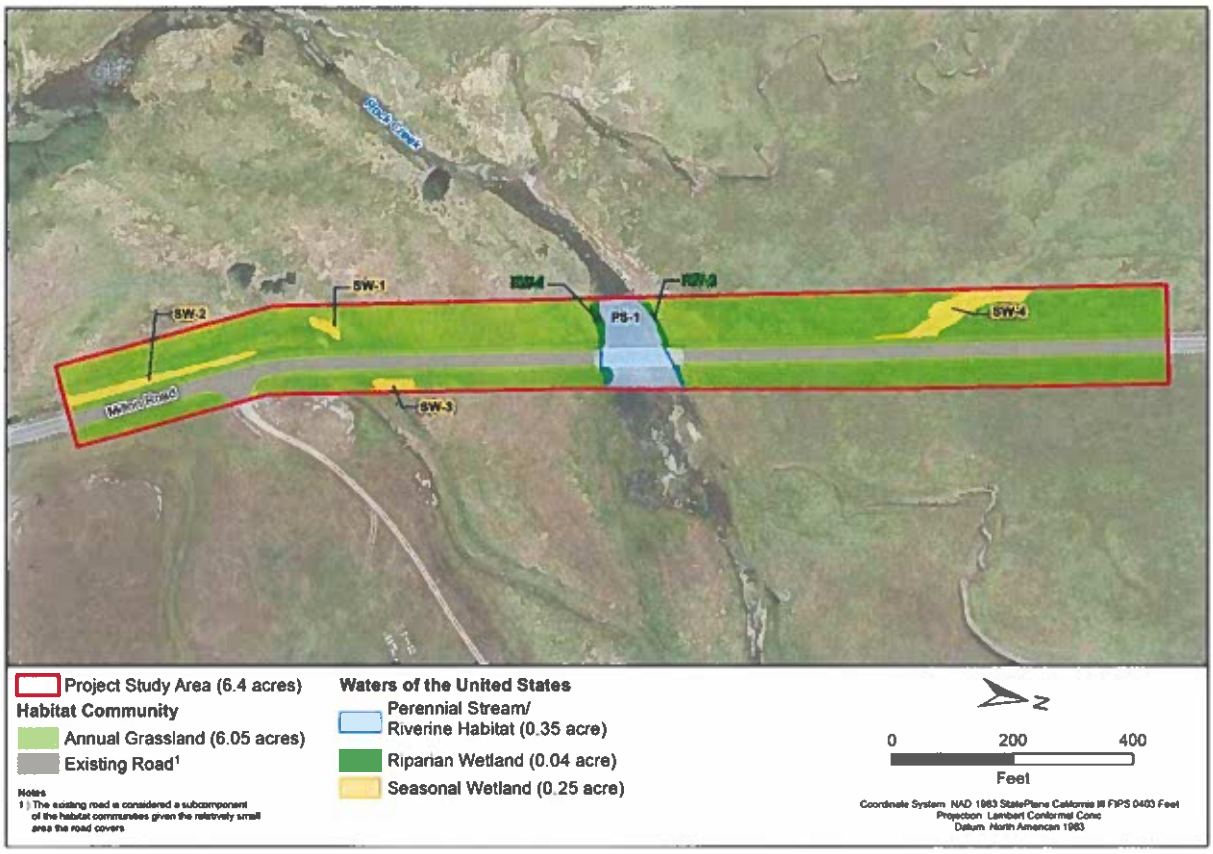


Figure 3. Habitat Communities

Annual Grassland

Annual grassland habitat occurs along Milton Road and throughout the biological study area (BSA). Dominant vegetative species in annual grassland habitat include broad leaf filaree (*Erodium botrys*), Medusa head (*Elymus caput-medusae*), rattail sixweeks grass (*Festuca myuros*), ripgut brome (*Bromus diandrus*), soft brome (*Bromus hordeaceus*), and wild oat (*Avena fatua*). Within the BSA, inclusions of seasonal wetlands are present within annual grassland. Dominant hydrophytic vegetation within the seasonal wetlands included Italian rye grass (*Festuca perennis*), seaside barley (*Hordeum marinum*), and Western morning glory (*Calystegia occidentalis*).

Annual grasslands are productive wildlife habitat. Grassland bird species, such as mourning dove (*Zenaida macroura*), savannah sparrow (*Passerculus sandwichensis*), and Western meadowlark (*Sturnella neglecta*), as well as rodents, including California ground squirrel (*Spermophilus beecheyi*), Botta's pocket gopher (*Thomomys bottae*), and deer mouse (*Peromyscus maniculatus*) forage on the seed crop this community provides. These species, in turn, attract predators such as gopher snake (*Pituophis melanoleucus*), American kestrel (*Falco sparverius*), red-tailed hawk (*Buteo jamaicensis*), barn owl (*Tyto alba*), gray fox (*Urocyon cinereoargenteus*), and coyote (*Canis latrans*). Reptile species expected to occur here include Western fence lizard (*Sceloporus occidentalis*), Gilbert's skink (*Plestiodon gilberti*), and Western rattlesnake (*Crotalus viridis*).

Riverine

Riverine habitat occurs within the channel of Rock Creek. The channel is largely devoid of vegetation with some patches of floating water primrose (*Ludwigia peploides*) in the inundated portions of the creek. The creek has substrates of fine sediments and some exposed cobbles at the channel/bank interface. The creek also supports a small strip of herbaceous riparian wetland vegetation along its banks, which is composed of Australian brass buttons (*Cotula australis*), cranesbill (*Geranium dissectum*), hyssop loosestrife (*Lythrum hyssopifolium*), Italian rye grass, Mediterranean rabbitsfoot grass (*Polypogon maritimus*), seep monkeyflower (*Mimulus guttatus*), toad rush (*Juncus bufonius*), and water speedwell (*Veronica anagallis-aquatica*).

A wide variety of wildlife species use riverine habitat in different ways. Species such as North American beaver (*Castor canadensis*) and muskrat (*Ondatra zibethicus*) often construct their living quarters mid-channel from emergent vegetation and/or plants found along the banks. Bird species such as green heron (*Butorides virescens*) and greater yellowlegs (*Tringa melanoleuca*) forage in and along the riverine habitat of Rock Creek for aquatic invertebrates such as red swamp crayfish (*Procambarus clarkii*) and small fish such as bluegill (*Lepomis macrochirus*) and green sunfish (*Lepomis cyanellus*).

3.2 Environmental Impacts and Mitigation Measures

I. Aesthetics

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?				Yes
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			Yes	
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?			Yes	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			Yes	

Discussion of Impacts

a) **No Impact.** The environmental setting is rural Stanislaus County with the land use consisting of mostly agricultural (livestock grazing). While distant views of the Sierra Nevada foothills from the project area exist, no officially designated scenic resources, view sheds, scenic roadways, or recreation areas are located in the vicinity of the project area. The project consists of replacing the existing Rock Creek bridge and Milton Road approaches with similar structures adjacent to the existing alignment and would be constructed in a manner consistent with the existing aesthetic. The project would have no impact on a designated scenic vista.

b) **Less-than-Significant Impact.** Milton Road is not designated as a state scenic highway. The closest officially eligible state scenic highway, State Route 49, is approximately 20 miles to the northeast (Caltrans 2022). Milton Road is also not identified as a local scenic highway in the County's General Plan. The project would have no impact to scenic resources within a state scenic highway. Removal of vegetation would be limited, with no tree removal proposed, and localized to allow for the new bridge alignment. Vegetation removal impacts would be minimal, decreasing over time as vegetation re-establishes and viewers (e.g., tourists, residents) acclimate to the changes associated with the new bridge and its approaches. Project impacts on existing scenic qualities would be less than significant.

c) **Less-than-Significant Impact.** The project includes the replacement of the existing bridge with a similar structure. As the proposed bridge would include visually similar design features as the existing bridge, no changes to the existing rural landscape are expected. Construction activities resulting from the project would not require the removal of any of the large trees located within the project site, as none are currently present. Additionally, the project site is not considered highly disturbed, and the vegetation does not receive substantial maintenance. Any affected vegetation is

anticipated to grow back with no substantial permanent changes to existing views anticipated. The proposed use of the existing bridge and roadway alignments and low structure profile would retain the qualities of the natural viewshed. Therefore, the project's impact on existing visual character and quality of existing views would be less than significant.

d) **Less-than-Significant Impact.** Construction and operation of the project are not expected to result in increased glare in the project area. The minor removal of vegetation would not increase the potential for glare from project area surfaces. The project would not introduce any new light sources or materials prone to glare. Because it would follow close to the existing alignment, headlights of vehicles traveling through the area would be buffered by surrounding vegetation, topography, and the limited number of sensitive receptors (e.g., residences) in line with the road. Project impacts from light or glare would be less than significant.

Mitigation Measures

No project-specific mitigation is required under this subject.

II. Agricultural and Forest Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board (CARB).

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?			Yes	
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?			Yes	
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined by Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production as defined by Government Code Section 51104(g))?				Yes
d) Result in loss of forest land or conversion of forest land to non-forest use?				Yes

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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?				Yes

Discussion of Impacts

a) **Less-than-Significant Impact.** There are no lands within or surrounding the project area that are considered Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as defined by the California Resources Agency (California Department of Conservation, 2022). The lands surrounding the project area are designated as grazing land and are currently used primarily for livestock grazing. The placement of new fill material for the new bridge and roadway alignment would convert 0.38 acre of grassland used for grazing, which would be a minor percentage relative to the total acreage of grazing land within the County (over 400,000 acres). No indirect conversion of farmland is anticipated as a result of project implementation; as adjacent grazing lands would continue to be managed for existing uses, and the project, as a bridge replacement for safety purposes, would not result in changes in regional development patterns and growth-related changes. Project impacts regarding the conversion of Farmland to non-agricultural use would be less than significant (North State Resources, Inc. 2017a).

b) **Less-than-Significant Impact.** The project would encroach on land (APNs 001-006-002, 001-006-017, and 001-006-018) that is currently under Williamson Act contract and zoned as Agriculture (Stanislaus County 2016). The three affected parcels carry Williamson Act contracts for Non-prime agricultural land (North State Resources, Inc. 2017b).The proposed bridge replacement and roadway modifications would take place in both existing County rights-of-way and new ROW that would need to be acquired. An estimated 0.91 acres (39,700 square feet) of new ROW are anticipated to be acquired from one private landowner. An estimated 0.59 acres (25,900 square feet) of temporary construction easements may also be necessary from the landowner for staging and other activities.

Potential temporary impacts during project construction would consist of fencing off approximately 0.2 acres of grazing land adjacent to the western side of Milton Road for two equipment staging areas, each approximately 0.1 acre, at either end of the project area. Because of the presence and movement of construction equipment, these areas would be temporarily unavailable to the landowner. Periodic noise and dust generated from project construction activities could also cause grazing animals to avoid the project vicinity. However, these temporary effects would not have a significant impact on land use because of the relatively small area of effect and the remaining availability of similar lands in the project vicinity. Areas of temporary impacts would be restored to preconstruction conditions following completion of construction.

The new bridge and improved roadway approaches would have a direct impact on designated grazing land resulting in the permanent conversion of approximately 0.38 net acre that are under Williamson Act contracts. An agricultural farm road and gate access located on the southeastern

side of the project area would be maintained during construction. Any fencing removed, or otherwise disturbed as a result of project construction would be restored. California Government Code Section 51295 states that when a project would condemn or acquire only a portion of a parcel of land subject to a Williamson Act contract, the contract is deemed null and void only as to that portion of the contracted farmland taken. The remaining land continues to be subject to the contract unless it is adversely affected by the condemnation. Based on the above discussion, the Williamson Act contracts for the three parcels affected by the project would not require cancellation, but only non-renewal of the small portions totaling 0.38 acre of land converted to non-agricultural use.

Because this is a location-specific bridge replacement project, there is no other land outside the two adjacent preserve parcels on which it is reasonably feasible to locate this public improvement. This project is also consistent with the principles of compatibility within the General Agricultural (A-2) zoning district because the minor amount of agricultural land converted would not significantly compromise the long-term productive agricultural capability of the subject contracted parcels nor would it significantly displace agricultural operations on these properties. Therefore, the project would have a less-than-significant impact to lands under Williamson Act contract or land zoned as agriculture.

c) **No Impact.** No forest land, timberland, or timberland zoned for timber production is located in the project area or vicinity. The project would not cause rezoning of forestland, timberland, or timberland zoned for timber production.

d) **No Impact.** The project area does not include any designated forest land. The project would not convert any forest land to non-forest uses and would not result in the loss of forest lands in Stanislaus County.

e) **No Impact.** No indirect conversion of farmland is anticipated as a result of project implementation; as adjacent grazing lands would continue to be managed for existing uses, and the project, as a bridge replacement for safety purposes, would not result in changes in regional development patterns and growth-related changes. The project area also does not include any forest land. Therefore, the project would have no impact with respect to this issue.

Mitigation Measures

No project-specific mitigation is required under this subject.

III. Air Quality

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?				Yes
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?		Yes		
c) Expose sensitive receptors to substantial pollutant concentrations?				Yes
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			Yes	

Discussion of Impacts

a) **No Impact.** The proposed project is consistent with the site land use and zoning, as designated in the Stanislaus County General Plan and Zoning Code. All construction easements would be temporary; the replacement of an existing bridge along the existing alignment, with no additional travel lanes, would not increase traffic. Therefore, construction and operation of the proposed project would not conflict with or obstruct implementation of any federal, state, or local air quality plan and there would be no impact.

b) **Less than Significant with Mitigation Incorporated.** The project is located within the San Joaquin Valley Air Basin, under the jurisdiction of SJVAPCD. CARB designates areas of the state as being in attainment, non-attainment, or unclassified for any state standard:

- Attainment – pollutant concentrations do not violate a pollutant standard within the area
- Non-Attainment – pollutant concentrations violate the standard at least once within a calendar year
- Unclassified – pollutant data are not sufficient to determine the attainment or non-attainment status for an air basin

The air quality attainment status for Stanislaus County is summarized in Table 1.

Table 1. Federal and State Ambient Air Quality Standards Attainment Status for Stanislaus County

Pollutant	Federal Standards Designation/Classification	State Standards Designation/Classification
Ozone – 8-Hour	No Federal Standard	Non-attainment/Severe
Ozone – 1-Hour	Non-attainment/Extreme	Non-attainment
PM_{10}	Attainment	Non-attainment
$PM_{2.5}$	Non-attainment	Non-attainment
Carbon Monoxide	Attainment/Unclassified	Attainment/Unclassified
Nitrogen Dioxide	Attainment/Unclassified	Attainment
Sulfur Dioxide	Attainment/Unclassified	Attainment
Sulfates	No Federal Standard	Attainment
Lead	No Designation/Classification	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Visibility Reducing Particles	No Federal Standard	Unclassified
Vinyl Chloride	No Federal Standard	Attainment

Sources: CARB 2021a, Maps of state and federal area designations; EPA 2022, Non-attainment Areas for Criteria Pollutants

Although Stanislaus County is in "non-attainment" status for ozone and $PM_{2.5}$ for both state and federal standards, and in "non-attainment" status for PM_{10} for state standards (CARB 2021a), due to its smaller size, the project would not substantially contribute to cumulative air quality impacts in the San Joaquin Valley.

Long-Term Emissions

The proposed project is not increasing traffic capacity as it would replace an existing two-lane bridge with a new two-lane structure, with no additional travel lanes added. Consequently, additional long-term emissions associated with increased traffic in the project study area are not expected to be generated as a result of operation of the project.

Construction Emissions

Temporary construction activities for the proposed project may include site preparation and bridge construction that would involve excavation, grading, and other construction activities. Construction equipment, such as front-end loaders, bulldozers, graders, dump trucks, backhoes, excavators, and pickup trucks, would be used to during construction. During construction, short-term air quality impacts are expected from the release of particulate emissions (airborne dust) generated by excavation, grading, hauling, and other activities related to construction. These emissions would be intermittent and temporary and limited to the immediate area surrounding the construction site. The total construction time is anticipated to be 8-10 months.

Of these emissions PM_{10} is of greatest concern for construction projects. PM_{10} can originate not only from construction vehicle and equipment emissions, but also from fugitive dust. While Stanislaus County is in "non-attainment" for ozone precursor emissions, most notably oxides of Nitrogen (NOx) and reactive organic gases, they are significant only in the case of large or intense

construction projects, which is not the case for this project (SJVAPCD 2022). Construction emissions were estimated using the latest Sacramento Metropolitan Air Quality Management District's Road Construction Model (Version 9.00). Construction emissions for the proposed project are presented in Table 2. The emissions presented are based on the best information available at the time of calculations. The emissions represent the peak daily construction emissions that would be generated by construction of the proposed project.

Table 2. Construction Emissions from Construction Activity

Activity	CO (lbs/day)	NOx (lbs/day)	ROG (lbs/day)	SOx (lbs/day)	PM_{10} (lbs/day)	$PM_{2.5}$ (lbs/day)
Grubbing/Land Clearing	9.56	8.93	0.91	0.02	0.59	0.39
Grading/Excavation	64.79	79.66	7.71	0.16	3.49	3.00
Drainage/Sub-Grade	46.73	55.38	5.42	0.11	2.47	2.11
Paving	12.86	9.11	0.93	0.02	0.47	0.41
Maximum Daily (lbs/day)	64.79	79.66	7.71	0.16	3.49	3.00
Project Total (tons/construction project)	5.07	6.02	0.59	0.01	0.27	0.23

Source: Sacramento Metropolitan Air Quality Management District Road Construction Model 2018
Key: **CO** = carbon monoxide, **lbs** = pounds, **NOx** = oxides of nitrogen, **PM_{10} and $PM_{2.5}$** = particulate matter 10 or 2.5 microns or less in aerodynamic diameter, respectively, **ROG** = reactive organic gases,**SOx** = sulfur oxides

The SJVAPCD emphasizes implementation of effective and comprehensive control measures rather than detailed quantification of construction emissions. All construction activities would follow the SJVAPCD rules and would implement all appropriate air quality BMPs, including minimizing equipment idling time and use of water or similar chemical palliative to control fugitive dust. Specifically, SJVAPCD requires all construction projects to comply with Regulation VIII Control Measures (SJVAPCD 2002). All of the control measures relevant to this project have been included in Mitigation Measure AQ–1 (Air Quality/ Dust Control). Implementation of these measures would reduce PM_{10} impacts to a level considered less than significant.

c) **No Impact.** During construction, short-term degradation of air quality is expected from the release of particulate emissions (airborne dust) generated by excavation, grading, hauling, and other activities related to construction. Emissions from construction equipment powered by gasoline and diesel engines are also anticipated and would include CO, NOx, volatile organic compounds, directly emitted PM_{10} and $PM_{2.5}$, and toxic air contaminants (TACs) such as diesel exhaust particulate matter (California Air Resources Board, 2021b). The greatest potential for TAC emissions would be related to diesel particulate emissions associated with heavy equipment operations during grading and excavation activities. In addition, incidental amounts of toxic substances such as oils, solvents, and paints would be used during construction. These substances would comply with all applicable SJVAPCD rules for their manufacture and use. However, there are no sensitive receptors such as schools, hospitals, or daycare centers located within five miles of the project site and the nearest residence is over 0.5 miles away. Therefore, the project would have no impact on exposing sensitive receptors to substantial pollution concentrations.

d) **Less-than-Significant Impact.** Construction activities would involve the use of gasoline or diesel-powered equipment that emits exhaust fumes. Construction could also involve asphalt paving, which has a distinctive odor during application. While persons near the construction work area may find these odors objectionable, emissions would be infrequent, would dissipate rapidly, and would be temporary. The effect of odors generated by project construction would be less than significant.

Mitigation Measures

Mitigation Measure AQ–1: Air Quality/Dust Control

In the construction bid documents, the County would include provisions that the contractor would implement a dust control program to limit fugitive dust emissions. The dust control program would include, but not be limited to, the following elements, as appropriate:

- The construction contractor will comply with the SJVAPCD Regulation VIII as it pertains to fugitive dust (PM_{10}).
- To control dust, apply water to inactive portions of the construction site and exposed stockpiles at least twice daily or until soils are sufficiently stable to prevent being carried away Tabby winds.
- Water will be applied on disturbed open soil by means of pressure-type distributors or pipelines equipped with a spray system or hoses and nozzles that will help ensure even distribution of water.
- All distribution equipment will be equipped with a positive means of shutoff.
- If reclaimed water is used, the sources and discharge must meet California Department of Health Services water reclamation criteria and the Central Valley RWQCB requirements. Non-potable water will not be conveyed in tanks or drain pipes that will be used to convey potable water and there will be no connection between potable and non-potable supplied. Non-potable tanks, pipes and other conveyances will be marked "NON-POTABLE WATER – DO NOT DRINK."
- Equipment or manual watering will be conducted on all stockpiles, dirt/gravel roads, and exposed or disturbed soil surfaces (inactive construction sites), as necessary, to reduce airborne dust.
- Pursuant to California Vehicle Code, all trucks hauling soil and other loose material to and from the construction site will be covered or should maintain at least 6 inches of freeboard (i.e., minimum vertical distance between the top of the load and the trailer).
- Any topsoil removed during construction will be stored on-site in piles no higher than four feet to allow development of microorganisms prior to replacing the soil in the construction area. The topsoil piles will be clearly marked and flagged. Topsoil piles that will not immediately be used in the construction area will be revegetated with a non-persistent erosion control mixture.
- Soil piles for backfill will be marked and flagged separately from native topsoil stockpiles. These soil piles will also be surrounded by silt fencing, straw wattles, or other sediment barriers or covered unless they are to be used immediately.

- All stockpiles, dirt/gravel roads, and exposed or disturbed soil surfaces will be watered by hand or with watering equipment, as necessary, to reduce airborne dust.
- All on-site unpaved roads and off-site unpaved access roads will be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.
- All land clearing, grubbing, scraping, excavation, land leveling, grading, cut & fill, and demolition activities will be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.
- Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles will be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant. Materials applied as temporary stabilizers will also provide wind erosion control benefits.
- If the project generates 150 or more vehicle trips per day, the construction contractor will prevent carryout and trackout.

Timing/Implementation: Prior to construction, during construction, and post construction
Enforcement: SJVAPCD
Monitoring: County and/or its contractor

IV. Biological Resources

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		Yes		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				Yes
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		Yes		
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?			Yes	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				Yes

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				Yes

Discussion of Impacts

a) **Less than Significant with Mitigation Incorporated.** A Biological Assessment (Stantec 2021) and a delineation of Waters of the United States (North State Resources, Inv. 2016) were used to assess the project impacts on special-status biological resources known to occur in the project area and the results are outlined in the project's Natural Environment Study (Stantec 2020).

The aquatic habitat in the project area does not include holding, spawning, or rearing habitat suitable for special-status anadromous fish species such as Chinook salmon (*Oncorhynchus tshawytscha*) or steelhead (*Oncorhynchus mykiss* ssp. *irideus*). Migration habitat for anadromous fish species is absent from the project study area given it is located outside of their known range (Stantec 2020). Farmington Diversion Dam is located approximately 8 miles downstream (west) of the project site and prohibits the passage of downstream fish species into the project study area.

Special-Status Plants

Based on the review of habitat requirements of the regionally occurring special-status plants and the results of the field assessment, it was determined that annual grassland in the project study area provides potentially suitable habitat for six special-status plant species:

- Colusa grass (*Neostapfia colusana*);
- Greene's tuctoria (*Tuctoria greenei*);
- Ahart's dwarf rush (*Juncus leiospermus* var. *ahartii*);
- Beaked clarkia (*Clarkia rostrata*);
- Dwarf downingia (*Downingia pusilla*);
- Legenere (*Legenere limosa*).

The botanical survey conducted on May 12 and 13, 2015 occurred within the blooming period of all six plants listed above. No special-status plant species were observed during the botanical survey. Special-status species were not located during the 2015 botanical survey and impacts are not expected. However, site conditions may have changed in seven years, and an updated survey is warranted to help ensure that no special-status species occur in the project study area. Due to the length of time since the previous survey, a botanical survey is recommended prior to construction and during the blooming periods of potential special-status plants (Mitigation Measure BIO-1 [Special-Status Plants]) to help ensure impacts to special-status plants would be less than significant.

Special-Status Wildlife

Based on the review of habitat requirements and the results of the field assessment, the following 12 special-status wildlife species were determined to have the potential to use habitats in the project area or immediate vicinity (Stantec 2020):

Invertebrates

- Vernal pool fairy shrimp (*Branchinecta lynchi*): Federally Threatened
- Vernal pool tadpole shrimp (*Lepidurus packardi*): Federally Endangered

Amphibians and Reptiles

- California tiger salamander (*Ambystoma californiense*): Federally Threatened / State Threatened
- Western spadefoot (*Spea hammondii*): State-listed Species of Special Concern (SSC)
- Western pond turtle (*Actinemys marmorata*): State-listed SSC

Birds

- Burrowing owl (*Athene cunicularia*): State-listed SSC
- Swainson's hawk (*Buteo swainsoni*): State Threatened
- White-tailed kite (*Elanus leucurus*): State Fully Protected
- Loggerhead shrike (*Lanius ludovicianus*): State-listed SSC

Mammals

- Pallid bat (*Antrozus pallidus*): State-listed SSC
- Western red bat (*Lasiurus blossevillii*): State-listed SSC
- American badger (*Taxidea taxus*): State-listed SSC

Vernal Pool Fairy Shrimp/Vernal Pool Tadpole Shrimp. The U.S. Fish and Wildlife Service (USFWS) formally listed vernal pool fairy shrimp as threatened and vernal pool tadpole shrimp as endangered under the Environmentally Sensitive Area (ESA) on September 19, 1994. Vernal pool fairy shrimp typically occur in vernal pools or vernal-like habitats such as astatic rain-filled pools, swales, earth slumps, or basalt-flow depression pools, which are situated above impervious soil layers (i.e., hardpan or bedrock) often within annual grasslands. Occupied habitats generally include a complex of vernal pools with upland mounds interspersed with basins, swales, and drainages connecting the vernal pool features. Vernal pool fairy shrimp occur in pools ranging from 0.05 acre to 0.10 acre, but the species was reported to occur more frequently in smaller, deep pools. Vernal pool tadpole shrimp are found in ephemeral freshwater habitats, including alkaline pools, clay flats, vernal lakes, vernal pools, vernal swales, and seasonal wetlands. Its freshwater habitat contains clear to turbid water, with water temperatures ranging from 50 to 84°F. Typically, the vernal pool tadpole shrimp is found in habitats that are deeper than 4.5 inches, pond for 15 to 30 days, and do not suffer wide daily temperature fluctuations.

The project study area is within the known range of vernal pool fairy shrimp and vernal pool tadpole shrimp. The CNNDB contains a single occurrence record from 1992 of vernal pool fairy shrimp approximately 5 miles north of the project study area within four vernal pools, each measuring approximately 9,000 square feet. Approximately 10 miles west of the project study area, a single

California Natural Diversity Database (CNDDB) occurrence notes that vernal pool tadpole shrimp have been documented in the area prior to a 2011 survey. Additionally, the CNDDB contains two occurrence records of California linderiella *(Linderiella occidentalis)* within the *Bachelor Valley*, California U.S. Geological Survey 7.5-minute quadrangle, the nearest of which was reported in one of the seasonal wetlands/vernal pools immediately adjacent to the project study area. While California linderiella is not a federally listed species, its habitat requirements are very similar to those of the two federally listed vernal pool branchiopods with the potential to occur. No other records for federally listed vernal pool branchiopods are reported in CNDDB within a 10-mile radius of the project study area.

The project study area is not located within critical habitat for vernal pool fairy shrimp or vernal pool tadpole shrimp. The nearest designated critical habitat for vernal pool fairy shrimp is approximately 5 miles northwest of the project study area in San Joaquin County. The nearest designated critical habitat for vernal pool tadpole shrimp is located approximately 20 miles south of the project study area in Stanislaus County.

There are six seasonal wetlands (SW-1, SW-2, SW-3, SW-4, SW-5, and SW-6) in the project study area (Figure 4). All six features are dominated by hydrophytic vegetation, including Italian rye grass and seaside barley.

- SW-1, SW-3, and SW-6 are situated in minor topographic depressions south of Rock Creek on both the east and west sides of Milton Road. These features collect precipitation and runoff from Milton Road and the adjacent annual grasslands. SW-5 is located just north of Rock Creek, east of Milton Road. This feature collects precipitation and runoff from the adjacent annual grasslands and nearby swales.

- SW-2 is located within a portion of an old agricultural ditch that no longer conveys water. This feature collects precipitation and runoff from the adjacent annual grasslands and is seasonally inundated during times of heavy and prolonged precipitation.

- SW-4 is located north of Rock Creek in a minor topographic depression that extends approximately 130 feet westward from Milton Road. The western shoulder of Milton Road has likely changed the hydrology of the topographic depression, resulting in the seasonal inundation of this low-lying area. SW-4 collects precipitation and sheet flow from the surrounding slopes, Milton Road, and a wetland swale located outside of the project study area to the northwest. Hydrophytic vegetation, including Italian rye grass and seaside barley, occur throughout this feature.

- SW-5 is located at the southern extent of the project study area, just east of Milton Road within a minor topographic depression. Precipitation and runoff from Milton Road and the adjacent slope to the east drain into the feature. The eastern shoulder of Milton Road has likely changed the hydrology of the topographic depression, resulting in the seasonal inundation within this low-lying area.

Based on field observations (e.g., dominance of hydrophytic vegetation) and review of Google Earth historical aerial imagery, all six seasonal wetlands in the project study area are typically inundated for approximately 4 months (16 weeks) during the rainy season, which is a sufficient duration to support vernal pool fairy shrimp and vernal pool tadpole shrimp. The seasonal wetlands

in the project study area are in proximity to each other and are located near other wetland features adjacent to the project study area; therefore, individuals and cysts of both species could be transported from one feature to another by birds or other vertebrates. No other wetland features that could support vernal pool branchiopods are present in the project study area.

Impacts to suitable aquatic habitat (i.e., seasonal wetlands in the project study area) could affect vernal pool fairy shrimp and vernal pool tadpole shrimp. The placement of cut/fill for the new road alignment could result in the permanent fill of up to 0.04 acre of seasonal wetland (SW-1, SW-2, and SW-4). Permanent impacts on a portion of a seasonal wetland may disrupt the hydrological conditions such that the entire feature is unsuitable for vernal pool branchiopod species. While permanent impacts on aquatic habitat totals 0.04 acre, the total effect on vernal pool branchiopods is 0.37 acre due to the potential loss of SW-1, SW2, and SW-4.

Construction activities that would temporarily impact potential habitat would include the following: vegetation clearing, grading, and grubbing of the project study area for site preparation and the mobilization and staging of heavy equipment in potential upland habitat. These activities could result in impacts to vernal pool branchiopods through injury, mortality, or displacement of if they are present in the work area or surrounding vicinity. The temporary impacts on potential habitat for these species may also result in increased predation or lowered reproductive success by limiting the amount and quality of habitat in the project study area. The proposed project would require on-site refueling of construction equipment to support construction activities. As a result, minor fuel and oil spills may occur, with a risk of larger releases. Without rapid containment and clean up, these materials could be potentially toxic to aquatic and terrestrial plants, wildlife, and fish species, depending on the location of the spill in proximity to these resources. Oils, fuels, and other contaminants could have deleterious effects on all biota present within close proximity to construction activities. Additionally, habitat and species composition of both plants and animals could be affected by accidental spills. These impacts may result in increased predation or lowered reproductive success by limiting the amount and quality of habitat in the project study area.

Construction activities in the work area could also result in impacts to water quality through the discharge of sediment via runoff into suitable habitat. Similar to the release of contaminants or pollutants described above, the release of sediment into the aquatic features within the project study area could be potentially toxic and have deleterious effects on the biota present, thereby resulting in decreased habitat quality and suitability. Changes or disruptions in site hydrology could occur as a result of the bridge replacement and road realignment, which could temporarily change the topography and drainage patterns within the project study area. These impacts could alter the quality and suitability of the potential habitat for vernal pool branchiopods by reducing or increasing the amount of water that the seasonal wetlands receive. However, impacts as a result of hydrologic changes or disruptions would be minimal and temporary since the proposed project would be timed to occur during the summer and fall months (i.e., June 15 to October 31) when precipitation is least likely to occur. Several non-native invasive plant species are present in the project study area and could be distributed during the proposed construction activities. Additionally, equipment, materials, and personnel could transport other non-native invasive plant species into the project study area. The spread of non-native invasive plant species in the project study area would degrade the habitat quality and suitability of potential habitat.

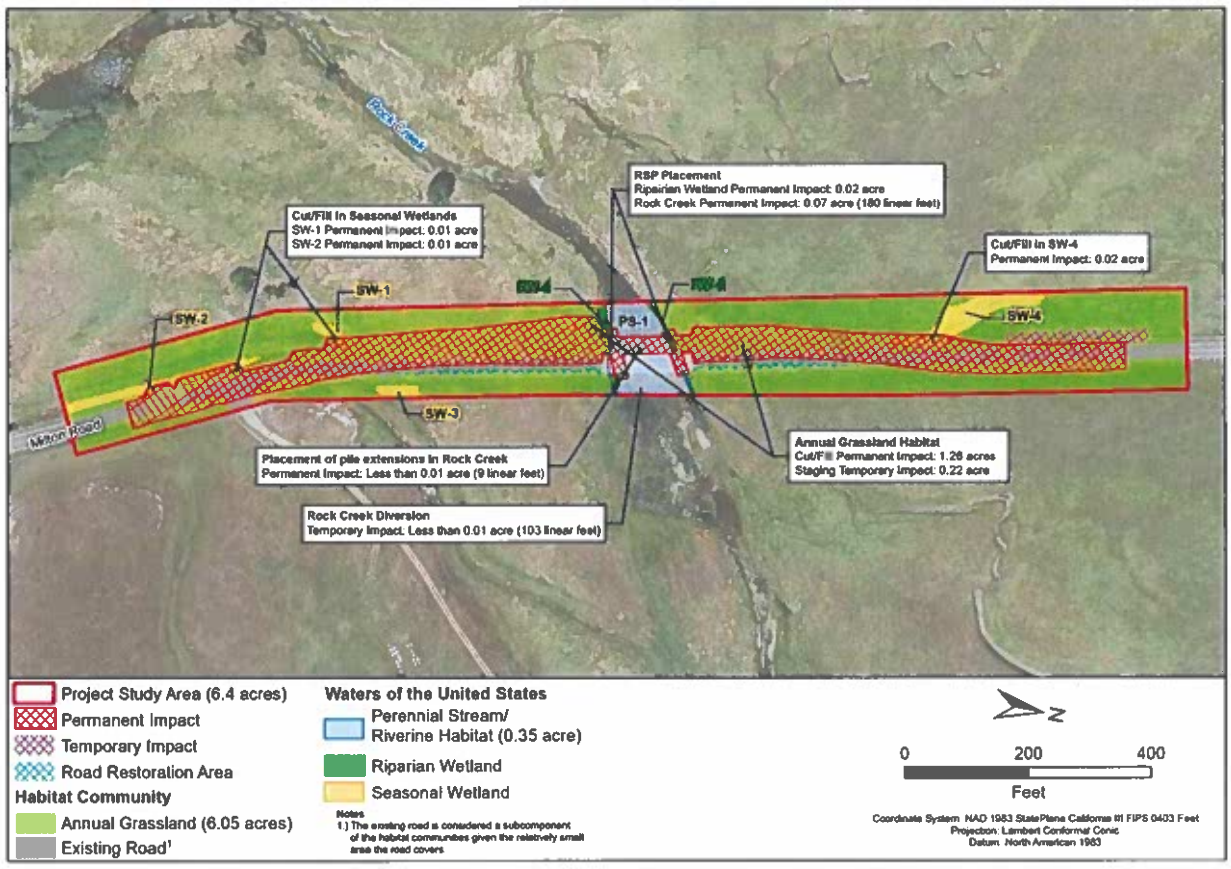


Figure 4. Impacts on Waters of the U.S.

Mitigation Measure BIO-2 (Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp) described below would be implemented to reduce any impacts on vernal pool branchiopods to a less-than-significant level. In addition, *Conservation Measure #1 – Erosion and Sedimentation Control*, *Conservation Measure #2 – Prevention of Accidental Spills*, Conservation Measure #3–*Prevention of Spread of Invasive Species* and *Conservation Measure #4 – General Measures for Protection of Special-Status Wildlife Species* described in Section 2.5 would be implemented to maintain water quality and provide additional protections to natural resources. Impacts to vernal pool fairy shrimp and vernal pool tadpole shrimp would be mitigated to a less-than-significant impact with implementation of these measures.

California Tiger Salamander. California tiger salamander is a federally and state-listed threatened species. The California tiger salamander primarily inhabits annual grasslands but may also occur in hardwood forests and along streams in valley-foothill riparian habitat (Stantec 2021). The project study area is located within the current known range of the California tiger salamander, which extends from Sonoma County east to the Yolo-Colusa County line and south to Tulare County in the Central Valley. Along the Coast Range, California tiger salamander occurs from Sonoma County south to Santa Barbara County (Stantec 2021). Approximately 0.5 acre of designated critical habitat Central Valley Region – Unit 6) for the species occurs in the western portion of the project study area. A review of the CNDDB returned no California tiger salamander occurrences within 3 miles of the project study area; however, the database contains four occurrence records within 5 miles of the project study area. A review of the California Academy of Sciences herpetology collection database resulted in nine records for Stanislaus County. Of those nine, only one record is located within 3 miles of the project study area and is located approximately 0.7 mile south of the project study area along Milton Road. (Stantec 2021).

Annual grassland habitat occurs adjacent to Milton Road and throughout much of the project study area and its vicinity. Within the project study area, annual grasslands with small mammal burrows provide potential upland habitat for California tiger salamander. The burrows are consistent in size with those made by California ground squirrel and are concentrated within 10 feet of the shoulders of Milton Road. Potential upland habitat for the species is also present in annual grassland habitat outside the project study area, and small mammal burrows are likely more concentrated along the roads and other anthropogenically disturbed areas.

Rock Creek is a perennial stream and is the primary drainage feature in the project study area. The creek bed is largely devoid of vegetation, but the creek margins do support wetland vegetation, including fresh emergent and herbaceous riparian wetland plant species. A review of aerial imagery spanning from 1998 to 2019 shows that water is nearly always present in Rock Creek, though during dry months the water appears ponded and confined to the deepest portions of the creek bed. The flow regime of Rock Creek appears to be highly dependent upon water releases from the reservoir, with substantial flows continuing into April or June of most years. While ponded portions of the creek provide the basic elements necessary for California tiger salamander breeding and larval development, the amount of water released from the upstream Salt Spring Valley Reservoir during the breeding season (November–April) create too much flow and would preclude the species from breeding in the creek. Furthermore, the volume of water flowing in Rock Creek during the larval development and metamorphosis phases (May–July) would likely wash larval or metamorphic California tiger salamander downstream. Therefore, Rock Creek in the local assessment area would not provide suitable aquatic breeding habitat for the species.

Several seasonal streams and drainages are scattered in the vicinity of the project study area, particularly to the northeast. These features appear to be fed from precipitation and sheet flow and convey water to Rock Creek. The seasonal streams and drainages exhibit scoured channels with exposed substrates and are bordered by annual grassland habitat. Google Earth aerial imagery of the project study area and its vicinity taken between 1998 and 2019 show that while seasonal ponding typically occurs within these features during the breeding season (November–April), these features are often dry by the end of April, which would preclude the species from completing their larval development and metamorphosis phases (May–July). Therefore, the seasonal streams and drainages in the vicinity of the project study area would not provide suitable aquatic breeding habitat for California tiger salamander.

An agricultural ditch runs along the west side of Milton Road south of Rock Creek. This ditch collects precipitation and runoff from the adjacent landscape and is seasonally inundated during times of heavy and prolonged precipitation. The ditch is connected on both the east and west sides of Milton Road via an old cement culvert. Within the project study area, the ditch does not remain inundated for the duration of the breeding season (November–April) and therefore does not provide suitable aquatic breeding habitat. However, aerial imagery shows that a portion of the ditch 250 feet south of the project study area contains fresh emergent vegetation and is frequently inundated from November to July. This portion of the ditch could support breeding, larval development, and metamorphosis and therefore provides potential aquatic habitat for the species.

Five stock ponds were identified within 1.2 miles of the project study area, the nearest of which is situated approximately 0.4 mile northeast of the project study area. These ponds hold water throughout the year and could support species breeding and larval development.

Eleven seasonal wetlands/vernal pools occur within three miles of the project study area including six that are located in the project study area. While all these features exhibit seasonal ponding during the breeding season, aerial imagery shows that during average rainfall years, 10 of the features are completely dry by the end of April and thus are not inundated during the larval development and metamorphosis phases (May–July). Therefore, in years of average or below average precipitation these 10 features would not provide aquatic breeding habitat. However, in years with above average rainfall these features could provide aquatic breeding habitat. The one seasonal wetland/vernal pool that appears to be inundated during the larval development and metamorphosis stages (May–July) during average rainfall years is located approximately 0.7 mile south of the project study area. This feature is in a low-lying area that collects runoff from the surrounding topography and is inundated for sufficient duration to provide suitable aquatic breeding and rearing habitat for California tiger salamander.

Impacts on California tiger salamander may occur when ground-disturbing activities result in the disturbance of potential upland refugia habitats within the project study area. Approximately 1.26 acres of potential upland habitat (i.e., annual grassland habitat) would be permanently impacted by the road construction and widening. Approximately 0.22 acre of upland habitat would be temporarily impacted by a proposed staging area along Milton Road. As noted above, the seasonal wetlands in the project study area are considered low quality aquatic habitat for the given the short period that they are inundated. The seasonal wetlands are not anticipated to be used by breeding California tiger salamander. Construction activities that would temporarily impact potential habitat would include the following: vegetation clearing, grading, and grubbing of the project study area for

site preparation and the mobilization and staging of heavy equipment in potential upland habitat. These activities could result in take of California tiger salamander through injury, mortality, or displacement of if they are present in the work area or surrounding vicinity. The temporary impacts on potential habitat for these species may also result in increased predation or lowered reproductive success by limiting the amount and quality of habitat in the project study area.

The proposed project would require on-site refueling of construction equipment to support construction activities. As a result, minor fuel and oil spills may occur, with a risk of larger releases. Without rapid containment and clean up, these materials could be potentially toxic to aquatic and terrestrial plants, wildlife, and fish species, depending on the location of the spill in proximity to these resources. Oils, fuels, and other contaminants could have deleterious effects on all biota present within close proximity to construction activities. Additionally, habitat and species composition of both plants and animals could be affected by accidental spills. These effects may result in increased predation or lowered reproductive success by limiting the amount and quality of habitat in the project study area

Mitigation Measure BIO-3 (California Tiger Salamander) described below would be implemented to reduce any impacts on salamanders to a less-than-significant level. Mitigation Measure BIO-2 (Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp) would also provide additional protections to the species. In addition, *Conservation Measure #1 – Erosion and Sedimentation Control*, *Conservation Measure #2 – Prevention of Accidental Spills*, and *Conservation Measure #4 – General Measures for Protection of Special-Status Wildlife Species*, described in Section 2.5, would be implemented to maintain water quality and provide additional protections to natural resources. Impacts to California tiger salamander would be mitigated to a less-than-significant impact with implementation of these measures.

Western Spadefoot. Western spadefoot is designated as a Species of Special Concern by the California Department of Fish and Wildlife (CDFW). The BSA is in the current known range of Western spadefoot. The CNDDB reports the nearest occurrence of the species is approximately 4.2 miles west of the project study area just over the San Joaquin County border near Waverly Road. The CNDDB occurrence from 1992 states that a few larval toads were observed in a low gradient stream with isolated pools. Based on field observations and a review of aerial imagery (Google Earth aerial imagery 1998-2016), the seasonal wetlands in the project study area provide potential breeding habitat for Western spadefoot given the hydroperiod of the features can last longer than three weeks during years with average or above average rainfall. Rock Creek would not function as breeding habitat given the fluctuating flow volumes anticipated during the species' breeding season (October through April). Burrows in the project study area could support burrowing and aestivation of the species during the nonbreeding season.

Impacts on the Western spadefoot would be similar to those described for the California tiger salamander. Ground-disturbing activities in the grasslands during establishment of the roadway improvements could affect burrows and injure individuals of the species if present in the burrows. Impacts on the seasonal wetlands in the project study area, would also affect potential breeding habitat for Western spadefoot. Abundant potential habitat for the species would remain in the vicinity of the project study area; therefore, the net loss of habitat as a result of the proposed project implementation for Western spadefoot would be negligible.

Implementation of Mitigation Measure BIO-3 (California Tiger Salamander), *Conservation Measure #1 – Erosion and Sedimentation Control, Conservation Measure #2 – Prevention of Accidental Spills,* and *Conservation Measure #4 – General Measures for Protection of Special-Status Wildlife Species* (as described in Section 2.5) would reduce mitigate impacts to Western spadefoot to a less-than-significant impact.

Western Pond Turtle. Western pond turtle is designated as a Species of Special Concern by the CDFW. This species is found in a wide range of aquatic habitats with emergent structure for basking and feeding. Western pond turtles also use adjacent upland sites for nesting, often traveling up to 0.3 mile over land to reach suitable nesting sites (Stantec 2020). The project study area is located within the current known range of Western pond turtle. The CNDDB does not report any occurrences of Western pond turtle within 5 miles of the project study area. Shallow slow-moving water in Rock Creek, and rocks and logs within and adjacent to the creek channel provide aquatic and basking habitat for Western pond turtle in the project study area. The annual grassland habitat present along the creek banks provides potential upland habitat for nesting.

Because project implementation would involve modification or alteration of the streambed and the stream bank, it has the potential for limited short-term impacts on Western pond turtle. Potential adverse impacts on Western pond turtle include stress, injury, or mortality to individuals or their nests resulting from project vehicles and equipment accessing the site; heavy equipment operation; installation of RSP; excavation activities; temporary impediments to dispersal along the creek channel during construction; sedimentation and turbidity resulting from work within the channel of Gallup Creek; fuel and oil spills within the banks of Rock Creek and the reduction of suitable upland habitat for basking and nesting within the project study area.

Mitigation Measure BIO-4 (Western Pond Turtle) would be implemented to reduce any impacts on turtles to a less-than-significant level. In addition, *Conservation Measure #1 – Erosion and Sedimentation Control* and *Conservation Measure #2 – Prevention of Accidental Spills* would be implemented to maintain water quality. Additional protective measures are provided with implementation of *Conservation Measure #4 – General Measures for Protection of Special-Status Wildlife Species*, as described in Section 2.5. Impacts to Western pond turtle would be mitigated to a less-than-significant impact with implementation of these measures.

Burrowing Owl/Swainson's Hawk/White-Tailed Kite/Loggerhead Shrike. Burrowing owl is designated as a Species of Special Concern by the CDFW. This species is generally found in open grasslands and ruderal agricultural settings throughout the Central Valley. Burrowing owl nests in small mammal burrows or other suitable underground cavities and/or crevices. In the Central Valley, the nesting season for this species occurs between February and August (Stantec 2020).

Swainson's hawk is listed as Threatened by CDFW. In the Central Valley, this species generally nests in isolated stands of trees and along forested edges near open habitats, such as annual grasslands and row crops that provide foraging habitat. The nesting season (nest building to post-fledging) generally occurs between April 1 and July 30 (Stantec 2020), but some active nesting activity may occur into August.

White-tailed kite is listed as Fully Protected by CDFW. It generally nests in tall shrubs or trees and is found in a variety of relatively open habitats such as ruderal agricultural settings, open scrub

lands, and grasslands throughout the Central Valley. In the Central Valley, the nesting season for this species occurs between March and August (Stantec 2020).

Loggerhead shrike is designated as a Species of Special Concern by the CDFW. This species is generally found in open grasslands, relatively open woodlands, and ruderal agricultural settings throughout the Central Valley. Loggerhead shrike nests in trees or shrubs and require barbed-wire fences, thorn bushes, or similar barbed structures nearby for impaling and storing prey items. In the Central Valley, the nesting season for this species occurs between March and August (Stantec 2020).

Potential habitat for burrowing owl, Swainson's hawk, white-tailed kite, and loggerhead shrike is present within and adjacent to the project study area. The annual grasslands, trees, shrubs, and other substrates (e.g., existing bridge, cavities in rocky outcrops) in and near the project study area provide nesting and foraging habitat for various bird species, such as Swainson's hawk, loggerhead shrike, and white-tailed kite. Burrows in the annual grasslands could provide potential nesting habitat for burrowing owl. The CNNDB reports recorded occurrences of three special-status bird species within 5 miles of the project study area including a 2002 record of a Swainson's hawk nest from 0.6 mile south of the project study area in an oak along Rock Creek and a 1987 record of several burrowing owls observed along the banks of Duck Creek approximately 2.7 miles west of the project study area.

Construction activities (e.g., vegetation removal, equipment noise) would be scheduled during the breeding season (generally February through September, depending on the species) and could disturb nesting birds in or adjacent to the project study area. Construction-related disturbance could result in the incidental loss of fertile eggs or nestlings, and/or nest abandonment. The demolition of the bridge may result in the direct removal of nests or affect nesting birds if nests are present in the surrounding vicinity. Ground-disturbing activities associated with new roadway alignment could affect active burrows of burrowing owl if present. These impacts could adversely affect the local or regional population of special-status or migratory birds. Less than 1.3 acres of annual grasslands would be disturbed during construction activities, resulting in a negligible loss of nesting and foraging habitat for various special-status and migratory birds. Extensive grasslands and other habitats would remain in the vicinity of the project vicinity.

Mitigation Measure BIO-5 (Burrowing Owl/Swainson's Hawk/White-Tailed Kite/Loggerhead Shrike) described below would be used to reduce any impacts on these avian species to a less-than-significant level. In addition, *Conservation Measure #1 – Erosion and Sedimentation Control*, *Conservation Measure #2 – Prevention of Accidental Spills*, and *Conservation Measure #4 – General Measures for Protection of Special-Status Wildlife Species* described in Section 2.5 would be used to maintain water quality and provide additional protections to natural resources. Impacts to burrowing owl, Swainson's hawk, white-tailed kite, or loggerhead shrike would be mitigated to a less-than-significant impact with implementation of these measures.

Pallid Bat/Western Red Bat. Pallid bat and Western red bat are both designated as a Species of Special Concern by the CDFW. The project study area is located within the range of pallid bat and Western red bat; both species could forage over the grassland and riverine habitats in the project study area and use the crevices and spaces of the existing bridge for roosting. The CNDDB reports occurrences of pallid bat approximately 9 miles southwest of the project study area, near the

community of Farmington, and occurrences of Western red bat approximately 15 miles southeast of the BSA along the Stanislaus River (Stantec 2020).

Bridge removal could disturb bats roosting on the bridge. Foraging activity would not be affected because construction activities would take place during the day. Less than 1.3 acres of annual grasslands would be disturbed during construction activities, resulting in a negligible loss of foraging habitat for bats. Extensive grasslands and other habitats would remain in the vicinity of the project study area.

Mitigation Measure BIO-6 (Special-Status Bats) described below would be implemented to reduce any impacts on these species to a less-than-significant level. In addition, *Conservation Measure #1 – Erosion and Sedimentation Control*, *Conservation Measure #2 – Prevention of Accidental Spills*, and *Conservation Measure #4 – General Measures for Protection of Special-Status Wildlife Species* described in Section 2.5 would be implemented to provide additional protections to natural resources. Impacts to pallid bat and Western red bat would be mitigated to a less-than-significant impact with implementation of these measures.

American Badger. American badger is designated as a Species of Special Concern by the CDFW. The BSA is located in the range of American badger. The nearest CNDDB occurrence is 30 miles southeast near Dawson Lake in southeast Stanislaus County (Stantec 2020). Annual grasslands and friable soils are present in and near the BSA provides potential habitat for the species.

Construction activities would be scheduled during the late-spring and summer months when American badgers are most active and frequently dig new burrows, and badgers would likely leave the area at the start of construction. Less than 1.3 acres of annual grassland habitat would be permanently removed as a result of the proposed project and is considered a negligible loss, given extensive grasslands would remain in the vicinity of the project study area.

The proposed project has been designed to minimize impacts on native habitats, to the maximum extent practicable, and a majority of the construction activities would occur in previously disturbed areas, including the existing road, shoulders, and bridge. In addition to implementation of *Conservation Measure #4 – General Measures for Protection of Special-Status Wildlife Species* (see Section 2.5), the Mitigation Measure BIO-5 (Burrowing Owl/Swainson's Hawk/White-Tailed Kite/Loggerhead Shrike), particularly the burrowing owl, would help reduce the potential for impacts on badgers. The biologist conducting preconstruction surveys for burrowing owls would also detect badger if present and allow the County to coordinate with CDFW and identify appropriate measures to avoid impacts during construction activities, such as using non-invasive techniques to encourage badgers to leave the area prior to ground disturbance. Therefore, potential impacts to American badger would be less than significant.

Migratory Birds and Raptors. Construction activities (e.g., vegetation removal and equipment noise) would occur during the avian breeding season (generally February through August, depending on the species) and could disturb nesting birds in or adjacent to the project area. Construction-related disturbance could result in the incidental loss of fertile eggs or nestlings or nest abandonment, which could affect local or regional populations of affected birds. Impacts on nesting birds could result from any of the following:

- Vegetation removal to accommodate the new bridge and road modifications

- Ground-disturbing activities (e.g., grubbing and grading) that could affect ground-nesting birds
- Noise from construction activities

Foraging birds and birds present in or adjacent to the project study area outside of the avian breeding season would not be adversely impacted by construction activities due to their high mobility and available habitat outside of the project study area.

The project was designed to minimize removal of native vegetation to the greatest extent practicable. Mitigation Measure BIO-7 (Migratory Birds and Raptors) would be used to help ensure that any impacts on migratory birds, including raptors, would be reduced to a less-than-significant level. Project operation would be consistent with existing conditions and would have no impact on migratory birds and raptors.

b) **No Impact.** In addition to inventorying reported occurrences of special-status species, the CNDDB serves to inventory locations of rare natural communities. Rare natural communities are those communities that are of highly limited distribution, and may or may not contain rare, threatened, or endangered species. The CNDDB ranks natural communities according to their rarity and endangerment in California. The CNDDB contains no records of rare natural communities within the project study area. Riparian vegetation is considered a sensitive natural community. However, riparian habitat within the project area is limited to herbaceous species; no riparian trees are present. No other sensitive natural communities occur in the project area. There would be no impact to riparian habitat or other designated sensitive natural communities as a result of the project.

c) **Less-than-Significant Impact with Mitigation Incorporated.** North State Resources, Inc. (now Stantec) conducted a delineation of potential waters of the United States in the project area on May 12 and 12, 2015 (North State Resources, Inc. 2016). A total of 0.64 acre of waters of the United States are present in the project study area and includes herbaceous riparian wetlands (0.04 acre), seasonal wetlands (0.25 acre), and perennial stream (0.35 acre, 160 linear feet) (Figure 3). These waters also qualify as waters of the state.

Temporary and permanent impacts to waters of the United States (i.e., water features subject to the jurisdiction of Corps) are anticipated as a result of implementation of the proposed project. Temporary impacts would result from the placement of fill into less than 0.01 acre (103 linear feet) of Rock Creek for the placement of the temporary diversion dam (Figure 4). Temporary falsework used to support the bridge during construction would be placed in the creek after the work area has been dewatered. A staging area is located adjacent to SW-2; however, exclusionary fencing would be installed around the feature to prevent any temporary or permanent impacts.

The new bridge would be 150 feet long and would span Rock Creek but would require the placement of three pier extensions in the channel (i.e., within the OHWM). The placement of the pier extension would result in the permanent fill of less than 0.01 acre (9 linear feet) of Rock Creek. RSP placement would also result in the permanent fill of 0.07 acre (180 linear feet) of Rock Creek and 0.02 acre of the adjacent riparian wetlands. The placement of cut/fill for the new road alignment could also result in the permanent fill of up to 0.04 acre of seasonal wetland (SW-1, SW-2, and SW-4).

Based on the current designs, the total temporary impacts on waters of the United States are estimated at <0.01 acre (103 linear feet), and the total permanent impacts are estimated at 0.14 acre or approximately 189 linear feet. Construction activities could also result in indirect water quality impacts on the creek and seasonal wetlands but would be minimized through implementation of the standard conservation measures provided above in Section 2.5.

Other impacts on habitats in the project study area could result from the spread of invasive plants because they may colonize areas disturbed by construction activities and outcompete native species. Equipment removing existing invasive plant species during construction could expose and/or distribute the seeds of the species or introduce other invasive plant species, which would result in the spread of invasive plants. Specifically, removal of the existing bridge and road could introduce new and/or existing invasive species and allow the invasive species to establish to the areas. Restoration of the former roadbed would minimize the potential to spread invasive species and restore native vegetation in the project study area.

Mitigation Measure BIO-8 (Waters of the United States) would be used to reduce any potential impacts on waters to a less-than-significant level and to compensate for impacts to jurisdictional wetlands and waters. In addition, *Conservation Measure #1 – Erosion and Sedimentation Control*, *Conservation Measure #2 – Prevention of Accidental Spills* and *Conservation Measure # 3 – Prevention of Spread of Invasive Species* would be implemented to reduce project-related impacts on waters of the United States to a less-than-significant level.

d) **Less-than-Significant Impact.** No migratory fish are present in Rock Creek given it is located outside of their known range and because Farmington Diversion Dam is located approximately 8 miles downstream (west) of the project site and prohibits the passage of downstream fish species into the project study area. Construction activities and post-construction use of the proposed bridge replacement would not inhibit wildlife movement. The existing bridge and roadway have been present in the environment for over 50 years; allowing wildlife species to become accustomed its presence. The volume of traffic using the bridge would continue to remain low; consistent with typical use on other bridges in the immediate area. Additionally, the project area does not encompass any wildlife nursery sites and would have no impact on terrestrial wildlife movement due to the surrounding urban habitat. Operational impacts would be consistent with existing conditions. Conservation Measure #4 – General Measures for Protection of Special-Status Species would also be implemented to avoid and minimize impacts to resident wildlife. This impact would be less than significant.

e) **No Impact.** The project site does not support any oak trees or riparian trees. Removal of any trees on private or County-owned land does not require any approval as Stanislaus County does not have a tree preservation ordinance. Since no trees would be impacted, there would be no impact due to conflicts with local policies or ordinances.

f) **No Impact.** Currently, there are no adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved habitat conservation plans that cover the project area. The project would have no impact on local, regional, or state conservation plans.

Mitigation Measures

In addition to the use of Conservation Measure #1 – Erosion and Sedimentation Control, Conservation Measure #2 – Prevention of Accidental Spills, Conservation Measure #3 – Prevention of Spread of Invasive Species, and Conservation Measure #4 – General Measures for Protection of Special-Status Wildlife Species, the following mitigation measures would be implemented.

Mitigation Measure BIO-1: Special-Status Plants

- A protocol-level botanical survey will be conducted prior to construction during the blooming periods for potential special-status plant species within the project study area. If no special-status plant species are observed, then no further mitigation is required. If any special-status plant species are located in the project study area, then the following measures will be implemented.
- Any topsoil removed during construction will be stored on-site in piles no higher than four feet to preserve the seed bank and allow development of microorganisms prior to replacing the soil in the construction area. The topsoil piles will be clearly marked and flagged. Topsoil piles that will not immediately be used in the construction area will be revegetated with a non-persistent erosion control mixture.

Timing/Implementation:	Prior to construction, during construction, and post construction
Enforcement:	United States Fish and Wildlife Fisheries Service, California Department of Fish and Wildlife, California Department of Transportation
Monitoring:	County and/or its contractor

Mitigation Measure BIO-2: Vernal Pool Fairy Shrimp/Vernal Pool Tadpole Shrimp

Stanislaus County would implement the following measures to minimize construction impacts on vernal pool branchiopods and its habitat:

- A qualified biologist knowledgeable of vernal pool branchiopods will provide a resource discussion during a worker environmental awareness training. The discussion will include how to identify the species, their habitats, relevant life history information, where the species would be likely to occur in the project study area, the state and federal laws pertaining to the species, and penalties for noncompliance with applicable laws.
- Topsoil from one seasonal wetland (SW-2) that is to be temporarily disturbed will be stockpiled and replaced during restoration activities. Topsoil from the feature will be clearly marked and flagged and will be stored separately from the other construction materials and stored on-site in piles.
- Adequate fencing will be placed and maintained around any avoided (preserved) seasonal wetlands to prevent impacts from construction vehicles.
- A qualified biologist will be present to monitor all ground-disturbing activities (e.g., clearing, grubbing, grading, excavation, backfilling) within 100 feet of sensitive aquatic resources (e.g., seasonal wetlands). The biological monitor will periodically inspect the fencing and construction-related activities to help ensure that no destruction of potential habitat for the listed vernal pool species occurs during the proposed activities. The biologist will have the authority to stop

activities that may result in such take or destruction until appropriate corrective measures have been completed. The County will be required to report immediately any unauthorized impacts to the USFWS.

- To compensate for the removal of seasonal wetland habitat (0.37 acres) that provides potential habitat for vernal pool fairy shrimp and vernal pool tadpole shrimp, the County will preserve vernal pool habitat within a CDFW- and USFWS-approved conservation area/mitigation bank at a minimum of 1.11acre (a 3:1 ratio) for permanent impacts or pay into a CDFW- and USFWS-approved in-lieu fee fund.

Timing/Implementation:	Prior to construction, during construction, and post construction
Enforcement:	United States Fish and Wildlife Fisheries Service, California Department of Transportation
Monitoring:	County and/or its contractor

Mitigation Measure BIO-3: California Tiger Salamander

Stanislaus County would implement the following measures to minimize construction impacts on California tiger salamander and its habitat:

- Ground-disturbing activities will be limited to daylight hours, and all clearing and grading activities in the project study area will be restricted to the dry season (June 15 to October 31) and will be coordinated with the USFWS and dependent on rainfall and site conditions.

- A qualified biologist knowledgeable of California tiger salamander will provide a resource discussion during a worker environmental awareness training. The discussion will include how to identify the species, its habitat, relevant life history and taxonomic information, where the species would be likely to occur in the project study area, what to do if the species is observed, the state and federal laws pertaining to the species, and penalties for noncompliance with applicable laws.

- No plastic, monofilament, jute, or similar erosion control matting that could entangle California tiger salamander will be used in the project study area. Possible substitutions include coconut coir matting, tackified hydroseeding compounds, or other material approved by the USFWS.

- During rain events and within 24 hours following rain events, all construction personnel will visually check for wildlife in the work area and around equipment and vehicles prior to resuming work. Construction personnel will keep vehicle speeds to 10 miles per hour or less in the work area to avoid wildlife.

- No canine or feline pets or firearms will be permitted in the project study area.

- If federally listed and/or state-listed species are found during construction activities, a qualified biologist will be immediately notified. As warranted, the qualified biologist may notify the USFWS and/or CDFW about the species observed. All construction activities having the potential to injure or harass special-status species or habitat will be immediately stopped. The qualified biologist will evaluate the situation and will have authority to halt any construction activities until appropriate corrective measures have been implemented or it is determined that special-status species will not be harmed. The qualified biologist will remain in the area for the remainder of the workday to make sure the special-status species are not harmed. Any federally listed species encountered

during construction activities will be allowed to move away from construction activities on their own. Capture and relocation are not permitted unless specifically approved in advance by the USFWS and/or CDFW. Any dead or injured federally listed or state-listed species will be immediately reported to the qualified biologist and the USFWS or CDFW and consultation with USFWS and/or CDFW will need to be re-initiated.

- Work areas that are temporarily disturbed will be revegetated with an assemblage of native vegetation suitable for the area.
- To compensate for the removal of annual grassland habitat that provides potential dispersal and refugia habitat for California tiger salamander, the County will preserve dispersal/refugia habitat within a CDFW- and USFWS-approved conservation area/mitigation bank at a minimum of 1.48 acres (0.22 acres [a 1:1 ratio] for temporary impacts and 1.26 acres [a 1:1 ratio] for permanent impacts) or pay into a CDFW- and USFWS-approved in-lieu fee fund.

Timing/Implementation:	Prior to construction, during construction, and post construction
Enforcement:	United States Fish and Wildlife Fisheries Service, California Department of Fish and Wildlife, California Department of Transportation
Monitoring:	County and/or its contractor

Mitigation Measure BIO-4: Western Pond Turtle

The following measures would be implemented to avoid or minimize the potential for adverse impacts on Western pond turtle:

- Environmental Awareness Training: Construction personnel training would be conducted by a qualified biologist prior to onset of work to brief them on how to recognize Western pond turtle and other special-status animals (e.g., Western spadefoot and California tiger salamander) that may occur in the project study area.
- Western Pond Turtle Relocation: If pond turtles are encountered in the project study area during construction and could be harmed by construction activities, work would stop in the area and the County would notify CDFW. Upon authorization from CDFW, a qualified biologist may relocate the individual(s) the shortest distance possible to a location containing habitat outside of the work area.

Timing/Implementation:	Prior to and during construction
Enforcement:	California Department of Fish and Wildlife, California Department of Transportation
Monitoring:	County and/or its contractor

Mitigation Measure BIO-5: Burrowing Owl/Swainson's Hawk/White-Tailed Kite/Loggerhead Shrike

The following measures would be implemented to avoid or minimize the potential for significant impacts on burrowing owl, Swainson's hawk, white-tailed kite, and loggerhead shrike:

- If construction activities, including vegetation clearing, are conducted completely outside of the nesting season (i.e., after September 30 and before February 1), no further measures are

necessary. If construction activities must occur during the nesting season (i.e., from February 1 to September 30), the following measures will be implemented.

- Because construction activities cannot avoid the breeding season for these bird species, the County will retain a qualified biologist to conduct a preconstruction survey, within the project study area and within an appropriate distance from the project site boundary, as access is available (e.g., 0.25 mile for Swainson's hawk, 250 feet for burrowing owls, and 500 feet for white-tailed kite and loggerhead shrike). The preconstruction survey will be performed between February 15th and September 15th, but no more than 14 days prior to the implementation of construction activities (including staging and equipment access).

- If active nests or burrows are found during the preconstruction survey, the County will coordinate with CDFW on additional protection measures, such as establishment of a buffer around the nest tree or burrow (e.g., typically 1,000 feet for Swainson's hawk nests, 250 feet for active burrows of burrowing owls, 50 feet for shrike). No construction activity will be conducted within this zone during the nesting season (generally February through August) or until such time that the biologist determines that the nest or burrow is no longer active. The buffer zone will be marked with flagging, stakes, or other means to mark the boundary. All construction personnel will be notified of the existence of the buffer and will avoid entering the buffer during the nesting season.

- If occupied burrows of burrowing owl are identified in the project study area outside the nesting season (September 1 through January 31), a 160-foot no-disturbance buffer will be established around the burrow until the burrow is no longer occupied. Non-invasive techniques may be used to remove owls from the burrow in coordination with CDFW, if necessary, to proceed with construction.

- Information on nesting special-status and migratory birds will be provided during the worker environmental awareness training.

Timing/Implementation:	Prior to and during construction
Enforcement:	California Department of Fish and Wildlife, California Department of Transportation
Monitoring:	County and/or its contractor

Mitigation Measure BIO-6: Special-Status Bats

The following measures would be implemented to avoid or minimize the potential for significant impacts on pallid bat and Western red bat:

- In conjunction with the preconstruction nesting bird survey, a qualified biologist will conduct a reconnaissance-level preconstruction survey of suitable roosting locations in the project study area (e.g., the existing bridge).

- If the biologist finds evidence of bat roosts, the biologist will attempt to determine which species are present, which features are being used, and for which roosting purpose. If it is determined that roosting bats are not present or are only using the area as a night roost (i.e., no young are present in the roost), no further avoidance and minimizations measures are necessary.

- If during the survey, pallid bat or Western red bat day roost or maternity roosts are identified, the County will coordinate with CDFW to determine the next steps and appropriate methods for removal.

- Removal of the vegetation may need to be scheduled before the birthing season for bats (i.e., prior to May 1) or after young bats are able to fly (i.e., after August 31). Removal of active roosts should be conducted in a manner that allows the bats the best opportunity to leave during darker hours to increase their chance of finding new roosts with minimum exposure to predation during daylight.

Timing/Implementation:	Prior to construction, during construction, and post construction
Enforcement:	California Department of Fish and Wildlife, California Department of Transportation
Monitoring:	County and/or its contractor

Mitigation Measure BIO-7: Migratory Birds and Raptors

The following measures will be implemented to avoid or minimize the potential for adverse impacts on nesting migratory birds and raptors:

- Vegetation Removal Prior to Nesting Season: If all necessary approvals have been obtained, potential nesting substrate (e.g., shrubs and trees) that would be removed by the project should be removed before the onset of the nesting season, which is March 1 through September 31, if practicable. This would help preclude nesting and substantially decrease the likelihood of direct impacts.

- Vegetation Removal During the Nesting Season: If vegetation removal and construction activities occur within nesting bird habitat between March 1 and September 31, a qualified biologist would conduct a preconstruction survey no more than two weeks before construction activities begin in that area. If an active nest is found, the biologist would determine a construction-free buffer zone to be established around the nest until the young have fledged. If a raptor nest is found that buffer would be 250 feet, unless a smaller buffer is approved by CDFW. The biologist would monitor the nest to help ensure construction activity would not disturb the reproductive process, and to determine when the young have fledged.

Timing/Implementation:	Prior to and during construction
Enforcement:	California Department of Fish and Wildlife, California Department of Transportation
Monitoring:	County and/or its contractor

Mitigation Measure BIO-8: Waters of the United States

The following measures would be implemented to reduce construction-related impacts on waters of the United States:

- The County will comply with the terms of a Clean Water Act Section 404 permit issued by the Corps and Section 401 water quality certification issued by the Central Valley RWQCB for activities involving the discharge of fill material in the Rock Creek or wetlands. For activity in and

along Rock Creek the County will also comply with the terms of a Streambed Alteration Agreement with CDFW (if determined necessary by CDFW) and the water quality certification from the Central Valley RWQCB. Prior to any discharge of dredged or fill material into wetlands and other waters located in the BSA or the removal of riparian vegetation, the required permits and authorizations will be obtained from the respective agencies. All terms and conditions of the required permits and authorizations will be implemented.

- All waters of the United States or State that are temporarily affected by project construction will be restored as close as practicable to their original contour and conditions within 10 days of the completion of construction activities.

- The County will design the roadway improvements to avoid direct and indirect impacts on the seasonal wetlands, to the greatest extent practicable, and designate all seasonal wetlands outside the area of permanent impact within the project study area as environmentally sensitive areas (refer to Figure 4 for wetland locations). These areas will be identified on construction drawings and demarcated in the field with flagging and signs identifying the area as off-limits to all personnel, equipment, and ground-disturbing activities. Exclusionary fencing will be installed around wetland features outside of impact areas. In addition, water quality BMPs will be installed around the wetlands (outside the wetland boundaries) in a manner that prevents water, sediment, and chemicals from draining into the features, and all staging, storage, stockpile areas, and off-road travel routes will be located as far as practicable away from the seasonal wetlands.

- Implementation of avoidance and minimization efforts described above would minimize potential adverse effects on seasonal wetlands. Based on the current design drawings permanent impacts on the wetlands could occur; as such, the County will provide compensatory mitigation in coordination with the Corps, either through the purchase of mitigation credits from an approved mitigation bank of payment of in-lieu fees to the National Fish and Wildlife Foundation. The specific mitigation ratio will be identified during the consultation process with the Corps and will provide at least a 1:1 replacement ratio for impacts to wetlands.

Timing/Implementation: Prior to, during, and after construction
Enforcement: U.S. Army Corps of Engineers, Central Valley RWQCB, California Department of Fish and Wildlife
Monitoring: County and/or its contractor

V. Cultural Resources

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?		Yes		
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		Yes		

c) Disturb any human remains, including those interred outside of formal cemeteries?				Yes

Discussion of Impacts

a) **Less than Significant with Mitigation Incorporated.** Cultural resources investigations (i.e., survey and excavation) covered the entire area of potential effect (APE)/Area of Direct Impact (ADI) for the proposed project and identified Bridge 38C0231 and site CA-STA-450H (P-50-002341 as potential historical resources (North State Resources, 2017b; Pacific Legacy, Inc. 2021).

The bridge (38C0231), built in 1918 and altered in 1968, is listed as a Category 5 bridge by Caltrans and as such does not meet the criteria for listing on the National Register of Historical Places.

The irrigation ditch designated CA-STA-450H (P-50-002341) is a linear resource that extends beyond the project study area onto private land and thus evaluation of this resource in its entirety was not possible for the current undertaking. Per Stipulation VIII.C.4 of the Section 106 Programmatic Agreement, therefore, CA-STA-450H (P-50-002341) would be considered eligible for the National Register of Historic Places (NRHP) due to its association with broad patterns of events tied to California's complex history of water management (Criterion A). The alignment diverts water from Rock Creek northeast of the project area, crosses under Milton Road, and channels the water southward to a ranch south of the project area. The portion to the east of Milton Road is dirt, that extends westward has portions lined with concrete. The portion within the ADI includes a corrugated iron pipe culvert that runs under Milton Road and concrete headwalls on either side of the road. The portion in the ADI does not possess any engineering features or distinctive materials that would meet NRHP Criterion C, nor is the ditch associated with anyone important in local or regional history (Criterion B). The linear resource extends beyond the project limits onto private land. The alignment within the project ADI; however, is already altered, having been lined and culverted, and thus the proposed project would not affect the ability of this property to convey its association with its historic past. To help ensure that site CA-STA-450H outside of the ADI would not be affected by the proposed project, an ESA Action Plan would be implemented to avoid impacts to the resources (Pacific Legacy, Inc. 2022) (Due to the confidential nature of cultural resources, specifics of the ESA are addressed in the confidential ESA Action Plan, available to qualified personnel upon request). Implementation of the ESA Action Plan and Mitigation Measure CR-1 (Cultural Resources) would reduce this impact to a less-than-significant impact.

b) ***Less than Significant with Mitigation Incorporated.*** Cultural resources investigations (i.e., survey and excavation) covered the entire APE/ADI for the proposed project and identified site P-50-001802 and site CA-STA-97/98 (P-50-000183/84) as potential archaeological resources (North State Resources, 2017b; Pacific Legacy, Inc. 2021).

Archaeological site P-50-001802 was originally recorded in 2000, not so much to document an intact archaeological site but rather to alert future researchers of a location of artifact-bearing deposits in the creek channel that were used by the County to line and ballast County roads. That original recording did not include formal site boundaries, so in 2017 the site record was updated and mapped to show the resource as extending approximately 540 meters north–south by 77 meters east–west to incorporate artifacts in the fill along Milton Road and in adjacent pastures.

Pacific Legacy's effort documented that the artifacts are indeed secondarily deposited materials and do not extend beyond the road prism nor outside the ROW. Although the fill material along Milton Road was borrowed from the Rock Creek channel, artifacts found in and adjacent to the ROW could also be from P-50-000183/184. Based on the topography, the natural slope was cut to construct Milton Road and usable dirt from this area, likely containing cultural materials, would have used as road fill. The Extended Phase I Investigation (XPI) report concluded that P-50-001802 does not meet any of the criteria for listing in the NRHP and therefore no further management of this resource is required.

Site P-50-000183/184 was originally recorded 1951 as an old rock shelter and habitation site. In 2017 for the current proposed project, the site record was updated to combine two sites that had previously been recorded separately: P-50-000183/CA-STA-97 and P-50-000184/CA-STA-98. The XPI report demonstrated that the portion of the site within the project ADI consists of an extremely sparse assemblage of flaked stone artifacts, mostly manufactured from local greenstone. The portion of the site in the ADI does not possess any depth or depositional integrity, nor were any chronological indicators recovered that would permit placing this site into any regional occupation sequence. As such, the portion in the ADI does not possess the ability to address important research questions and therefore should be considered a non-contributing portion to the resource as a whole (Pacific Legacy, Inc. 2021). Evaluation of the property in its entirety was not possible because the site is somewhat large and extends onto private property. Despite this, the XPI documented that the area within the ADI contains limited artifacts, is homogeneous and disturbed, and impacts to this portion of the site would not alter the characteristics that could make the site eligible for the NRHP. Pursuant to Stipulation VIII.C.4 of the Section 106 PA, site P-50-000183/184 (CA-STA-97/98) is assumed eligible for the NRHP for the purposes of this project. Native American consultation did not identify any cultural values that would warrant considering eligibility under any of the other NRHP criteria. The proposed project would not significantly impact the intact resources associated with CA-STA-97/98 (P-50-000183/ P-50-000184) with the implementation of the ESA Action Plan. Should a request be made by a Native American tribe that the County have a Native American monitor present during ground-disturbing activities, a monitor would be invited to be present. Implementation of the ESA Action Plan and Mitigation Measure CR-1 (Cultural Resources) would reduce this impact to a less-than-significant impact.

c) **No Impact.** Human remains were not identified during the cultural study; however, the potential for encountering human remains during project construction can never be entirely ruled out. State law prescribes protective measure that must be taken if any subsurface human remains are discovered. *Conservation Measure #5 – Cultural Resources and Human Remains* (described in Section 2.5) was incorporated into the project design to address any inadvertent discovery of human remains during project excavation.

Mitigation Measures

In addition to the use of *Conservation Measure #5–Human Remains* (described in Section 2.5), the following mitigation measures would be implemented:

Mitigation Measure CR-1: Cultural Resources

- Per Caltrans Exhibit 5.1 in Volume 2 of the Standard Environmental Reference, "it is Caltrans' policy to avoid cultural resources whenever possible. If buried cultural materials are encountered during construction, it is Caltrans' policy that work stop in that area until a qualified archaeologist can evaluate the nature and significance of the find. Additional survey will be required if the undertaking changes to include areas not previously surveyed." Per Attachment 4 of the Section 106 Programmatic Agreement, isolated prehistoric or historic finds of fewer than three items per 100 square meters are properties exempt from evaluation.
- A Native American monitor will be present during all project ground disturbance.

Timing/Implementation: During construction
Enforcement: Native American Heritage Commission and County
Monitoring: County and/or its contractor and the Native American Heritage Commission

VI. Energy

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?				Yes
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency				Yes

Discussion of Impacts

a, b) **No Impact.** It would be necessary to use diesel-powered equipment during project construction. This would not be considered wasteful, inefficient, or unnecessary consumption of energy resources. The bridge replacement project would comply with state and Stanislaus County plans for energy efficiency.

Mitigation Measures

No project-specific mitigation is required under this subject.

VII. Geology and Soils

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
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?			Yes	
ii) Strong seismic ground shaking?			Yes	
iii) Seismic-related ground failure, including liquefaction?			Yes	
iv) Landslides?			Yes	
b) Result in substantial soil erosion or the loss of topsoil?			Yes	
c) Be located on strata 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?			Yes	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?				Yes
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				Yes
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		Yes		

Discussion of Impacts

a, i-ii) **Less-than-Significant Impact.** Taber prepared a Foundation Study Report for the project which evaluated site geology, soils, and seismic conditions (Taber 2016). The project study area is not located within an Alquist-Priolo Earthquake Fault Zone (California Geological Survey 2012). Even though the project area is distant from known, active faults, very infrequent earthquakes could still cause strong ground shaking (California Geological Survey 2021). To help ensure that potential seismically induced hazards do not affect the replacement bridge, the project would be engineered to account for the seismic activity known to occur in the area. The project would have a less-than-significant impact with respect to exposing people or structures to potential substantial adverse effects from seismic ground shaking.

iii) **Less-than-Significant Impact.** Soils found in the project area have low susceptible to liquefaction when saturated. Groundwater levels in the area are fairly low and the soils are well drained, greatly reducing the project area's susceptibility to liquefaction (Taber 2016). The project would be engineered to account for the possibility of liquefaction. Thus, the potential impacts related to exposing people or structures to potential substantial adverse effects from liquefaction are considered to be less than significant.

iv) **Less-than-Significant Impact.** The topography of the project study area is relatively flat, with the exception of the banks of Rock Creek. Therefore, the project area has low susceptibility to landslides. The project would have a less-than-significant impact with respect to exposing people or structures to potential substantial adverse effects from landslides.

b) **Less-than-Significant Impact.** Project construction would be necessary within Rock Creek. Vegetation clearing, construction equipment access, and re-contouring of the creek bed and banks would expose soils. Erosion and sedimentation into downstream waters could result if runoff were to occur during construction. Also, grading activities could increase the potential for erosion during rain or wind events, which would be a significant impact. Pursuant to the CWA, the County is required to obtain a National Pollution Discharge Elimination System (NPDES) Phase II permit from the Central Valley RWQCB. To obtain a NPDES Phase II permit, the County would prepare a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP would include BMPs to reduce erosion during project construction and minimizes sedimentation down gradient from the project. Implementation of these BMPs and Erosion and sediment control measures described in *Conservation Measure #1 – Erosion and Sedimentation Control* would be used during construction to minimize the potential for erosion pre- and post-construction. The potential for soil erosion and loss of topsoil as a result of project implementation would be less than significant.

c) **Less-than-Significant Impact.** The project is underlain by clay, gravel, sand, silt, and cobble sized materials (Taber 2016). Soils in the project area are stable and would not become unstable as a result of the project. The project would be engineered to account for the possibility of on- or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse. The project study area does not have a significant potential for landslides according to the California Department of Conservation (California Geological Survey 2016) or by the Stanislaus County General Plan. The potential for site instability would be less than significant.

d) **No Impact.** Expansive soils are defined as those soils with a plasticity index of 15 percent or greater; soil unit types within the project study area do not exceed a plasticity index of 0 percent. The project study area is underlain by non-expansive soils with a low shrink/swell potential (Natural Resources Conservation Service 2020). Furthermore, work outside of the existing road corridor would be temporary and the project constructed within the existing road corridor would be consistent with Caltrans Design Specifications. As such, there is no potential for expansive soils that would be substantial risks to life or property.

e) **No Impact.** The project does not involve septic or wastewater systems.

f) **Less than Significant with Mitigation Incorporated.** The geology of the project area consists largely of the Valley Springs formation (California Geological Survey 2010). This formation is uncertain but likely high sensitivity to contain fossils in Stanislaus County or nearby Calaveras counties. The Valley Springs formation is known to contain terrestrial vertebrate fossils from the

Miocene age within the region. A records search of the University of California's Museum of Paleontology collections database did not any recorded vertebrate fossil localities present in the Valley Springs formation found in Stanislaus and Calaveras counties.

While no known paleontological resources occur within the project study area, the regional occurrence of Pleistocene vertebrate fossils within the Valley Springs formation suggests that there is potential for uncovering fossil remains during project-related earth-moving activities. Substantial damage to, or degradation of unique paleontological resources would represent a significant impact. Implementation of Mitigation Measure GEO-1 (Paleontological Resources) would address potential direct or indirect impacts to unique paleontological resources and reduce those impacts to a less-than-significant level.

Mitigation Measures

In addition to the use of *Conservation Measure #1 – Erosion and Sedimentation Control* (described in Section 2.5), the following mitigation measures would be implemented:

Mitigation Measure GEO-1: Paleontological Resources

- If paleontological resources are discovered during project construction, all work within 100 feet of the discovery site will stop until a qualified paleontologist can assess the significance of the find and recommend appropriate treatment. Stanislaus County will be responsible for ensuring that recommendations regarding treatment are implemented.

Timing/Implementation: During construction
Enforcement: County
Monitoring: County and/or its contractor

VIII. Greenhouse Gas Emissions

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

Discussion of Impacts

a) **Less-than-Significant Impact**. GHGs are recognized by wide consensus among the scientific community to contribute to global warming/climate change and associated environmental impacts because of their ability to trap heat in the atmosphere and affect climate. The major GHGs that are released from human activity include carbon dioxide, methane, and nitrous oxide (Governor's Office of Planning and Research 2008, 2018). The primary sources of GHGs are vehicles

(including planes and trains), energy plants, and industrial and agricultural activities (such as dairies and hog farms).

Long-Term Operational Emissions. The proposed project would replace the existing bridge with a new two-lane bridge that meets American Association of State Highway and Transportation Officials standards. Since the project would not increase the travel lane capacity or alter the speed limits along Milton Road, long-term GHG emissions are not expected to increase as a result of the proposed project.

Short-Term Construction Emissions. Emissions of GHGs from the proposed project would be generated off-site from the production of materials used for the bridge, as well as on-site construction-related equipment emissions. Emissions of GHGs resulting from off-road heavy-duty diesel engines during construction activities would be short-term and minor. Implementing Mitigation Measure AQ-1 (Air Quality/Dust Control) and *Conservation Measure #6 – Greenhouse Gas Emissions* (described in Section 2.5) would reduce GHG emissions. These measures would be incorporated into the project design and would be used during construction to help ensure that project-related impacts would remain less than significant.

b) **Less-than-Significant Impact.** The State of California has adopted several regulations related to GHG emissions reduction. These include efforts to reduce tailpipe emissions and diesel exhaust produced by fuel-combustion engines. Operation of the project would not generate increased traffic levels as it is not increasing capacity. Additionally, project construction would adhere to statewide efforts aimed at minimizing GHG emissions and, therefore, would not conflict with any applicable plans, policies, or regulations adopted for reducing the emission of GHGs. The project would have a less-than-significant impact.

Mitigation Measures

Mitigation Measure AQ-1 (Air Quality/Fugitive Dust), and *Conservation Measure #6 – Greenhouse Gas Emissions* (described in Section 2.5) would be implemented, if necessary. No project-specific mitigation is required under this subject.

IX. Hazards and Hazardous Materials

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?		Yes		
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?		Yes		
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				Yes

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				Yes
e) For a project located within an airport land use compatibility plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				Yes
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			Yes	
g) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			Yes	

Discussion of Impacts

a, b) **Less-than-Significant Impact with Mitigation Incorporated**. Project construction and operation would not routinely generate any hazardous materials. Project operation would not involve the use or storage of any hazardous materials. Although construction would not generate any hazardous materials, a potential hazard to the public and the environment would be posed by the use of diesel or gasoline powered construction equipment (e.g., trucks, excavators) and lubricants such as oil and hydraulic fluids. The potential for such hazards would be temporary since equipment would be routinely maintained and inspected to avoid leaks, and this is similar to the impacts associated with the vehicles operating daily on nearby roads. BMPs described in *Conservation Measure #2 – Prevention of Accidental Spills* (described in Section 2.5) would further reduce the potential impacts associated with the accidental spills of pollutants (e.g., fuel, oil, grease) during construction and operation. The potential for the accidental spill of pollutants would be less than significant.

Naturally Occurring Asbestos. Crawford & Associates, Inc. conducted an Initial Site Assessment (ISA) for the proposed project (Crawford & Associates, Inc. 2022). Geologic mapping was reviewed, and a site reconnaissance conducted to determine the likelihood of naturally occurring asbestos (NOA) in the study area. No ultramafic rock units have been identified in the published mapping and no outcrops likely to contain NOA or rock fragments were observed in the study area. No indications of a recognized environmental condition with respect to NOA were observed at the project site.

Aerially Deposited Lead. The project site history was reviewed to determine likelihood of aerially deposited lead (ADL) in the study area. ADL from leaded gasoline use may be an issue on roads which have historically experienced significant traffic volume, particularly where vehicles would be stopping and idling (i.e., at a stop sign or a high congestion area). Leaded gasoline was used from the 1920s through the 1970s. ADL is also a concern in areas adjacent to structures where paint containing lead was used. The presence, or likely presence, of lead in soil at the project site requires preparation of a Lead Compliance Plan (Caltrans 2018 Standard Specifications (SS) Section 7-1.02K(6)(j)(ii), a Health & Safety Plan for workers in accordance with California Division of Occupational Health and Safety (Cal/OSHA) Title 8, Section 1532.1, and may require special soil

disposal procedures (Caltrans 2018 Standard Special Provision (SSP) 7-1.02K(6)(j)(iii)), SSP 14-11.08, and SSP 14-11.09). Milton Road appears to have been used for motor vehicle traffic throughout the period of leaded gasoline usage. The ISA includes a recommendation that soil within the study area be tested for the presence of lead at concentrations that exceed the hazardous waste threshold. If soil along Milton Road within the construction zone contains lead that exceeds the hazardous waste threshold, the affected areas would be treated as hazardous waste and removed accordingly for disposal at a suitable location. Mitigation Measure HAZ-1 (Aerially-Deposited Lead) would be used to reduce the potential for lead paint contamination in and adjacent to the project area resulting from demolition of the existing bridge.

Lead-Based Paint. Paint samples must be collected from painted surfaces and analyzed when the likelihood of flaking, peeling, or paint dust exists. If lead is identified at concentrations above threshold limits, the painted surfaces must be dismantled and disposed of in accordance with the Caltrans Standard Special Provisions for removal of lead paint Provision 14-11.08, Disturbance Of Existing Paint Systems On Bridges. The bridge structure did not appear to be painted; sampling for lead-based paint is not warranted.

Asbestos-Containing Materials. Existing structures that would be impacted by project demolition are constructed of materials having the potential to contain asbestos. Concrete bridge components (piers, footings, abutments, deck) and concrete irrigation/drainage canal structures could potentially contain asbestos. Asbestos-containing materials (ACM), as defined in the California Code of Regulations, Title 8, Section 1529 of the Construction Safety Orders, can also be present in construction materials such as bridge joint seals, bearing pads, shims, deck drains or other less obvious materials such as pipe conduits for utilities. Federal regulations require a Certified Asbestos Consultant (CAC) make definitive conclusions regarding the presence of asbestos or ACM. Under the federal asbestos National Emissions Standards for Hazardous Air Pollutants regulations (NESHAP, 40 CFR Part 61, Subpart M), a CAC must make definitive conclusions regarding the presence of ACM. Prior to demolition, the existing structure is required to have an asbestos survey completed to determine the appropriate method of handling and disposal of demolition debris. Written notification to the Air Quality Management District of demolition or renovation operations on structures is required at least 10 business days prior to conducting the work, regardless of the presence or absence of asbestos in building materials. Therefore, the County would conduct testing for the presence of asbestos in the bearing pad prior to construction. If asbestos is found in the bearing pad of the bridge structure and the irrigation/drainage canal components, then implementation of Mitigation Measure HAZ-2 (Asbestos-Containing Building Material) would be used during construction to reduce impacts to a less-than-significant impact.

Thermoplastic Traffic Striping. Thermoplastic traffic striping may contain heavy metals, including lead and cadmium, at concentrations that exceed the hazardous waste thresholds established by the California Code of Regulations, and may produce toxic fumes when heated. Consequently, if traffic striping material would be removed by planing, grinding, or sandblasting, the traffic striping material must be tested to determine whether hazardous concentrations of heavy metals are present. In lieu of testing, hazardous levels of lead can be assumed, and then the removed material would need to be handled as hazardous waste and disposed of at an appropriate facility. The presence of lead in the striping material must be included in the Lead Compliance Plan and Health & Safety Plan. If plans call for removal of traffic striping by grinding, planing, or sandblasting, the ISA included a recommendation that the striping material be tested to evaluate if

concentrations of metals are present at concentrations that exceed hazardous waste limits. If the striped pavement is removed and recycled, it would not require hazardous waste handling. If contaminated materials are identified in the thermoplastic traffic striping, then implementation of Mitigation Measure HAZ-3 (Thermoplastic Traffic Striping) would be used during construction to reduce impacts to a less-than-significant impact.

Other Potential Contaminants. No other materials that may require special handling were observed within the study area (e.g., transformers, agricultural chemicals, petroleum hydrocarbons, or other unknown hazardous conditions which may require disposal according to California Department of Toxic Substances guidelines).

c) **No Impact.** There are no existing schools within 5 miles of the project study area. There are also no new schools proposed within 0.25-mile of the project site. The project would have no impact relating to release of hazardous materials near a school.

d) **No Impact.** Review of the California Department of Toxic Substances Control EnviroStor database (California Department of Toxic Substances Control 2022) and the State Water Resources Control Board's GeoTracker database (SWRCB 2022) did not identify any know hazardous waste sites within the project area. There is no record of any known contaminated sites, regulated landfill sites, or hazardous waste generators in the project vicinity on file with the County Environmental Health Department. The project area is not included on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. No potential hazardous materials or waste sites are listed in the project vicinity.

e) **No Impact.** The project is not located near any public or private airport or airstrip. No impact related to proximity to an airport or airstrip would occur.

f) **Less-than-Significant Impact.** During construction of the replacement bridge, the existing bridge and roadway approaches would be retained to maintain vehicular access through the project area as the new bridge and approaches are constructed. The project is not anticipated to impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan because vehicular access would be maintained. The project would have a less-than-significant impact with respect to this issue.

g) **Less-than-Significant Impact.** Natural land cover in the undeveloped areas is primarily annual grassland, dominated by weedy species. Based on current mapping, the fire hazard potential of lands in the project area is mapped as having "high" fire hazard potential by the U.S. Department of Agriculture (USDA 2022) and is not mapped as a fire risk according to the California Public Utilities Commission Fire-Threat Map (CPUC 2020). The project activities, including a bridge replacement, would not exacerbate fire risks or result in ongoing impacts to the environment. Therefore, the project would have no impact. The use of construction equipment in and around vegetated areas increases the potential for wildfire ignition. However, *Conservation Measure #7– Wildfire Potential* (described in Section 2.5) would further reduce the risk of wildfire associated with project construction. The potential for accidental wildfire ignition during construction would be less than significant. Project operation would be consistent with existing conditions and would not increase the potential for wildfire ignition.

Mitigation Measures

In addition to the use of Conservation Measure #2 – Prevention of Accidental Spills and Conservation Measure #7 – Wildfire Potential (described in Section 2.5), the following mitigation measures would be implemented.

Mitigation Measure HAZ-1: Aerially Deposited Lead

- Prior to the start of demolition/construction activities, soil adjacent to Milton Road that will be disturbed must be screened for the presence of ADL at concentrations above the hazardous waste threshold. Soil samples must be collected near each of the four bridge corners, at two location north of the existing bridge (where the new roadway will conform with existing), and at two location south of the existing bridge (where the new roadway will conform with existing). At each location, soil samples should be collected at 0–6 inches, 12–18 inches, and 24–30 inches below ground surface.

- In order for hazardous waste management requirements of Health and Safety Code, Chapter 6.5 and California Code of Regulations, Title 22 to be waived, lead-contaminated soils must not exceed the contaminant concentrations discussed in Section 9 of the variance and must meet all the conditions contained within the same section. Required handling of lead-contaminated soils is outlined in Table 3 and will depend on the level of lead contamination in the soils at the site.

Table 3. Lead Soil Management

Soluble Lead (mg/l)	Total Lead (mg/kg)	Soil Type	Handling
California Testing			
STLC <5.0	TTLC <1000	X	Non-hazardous Waste. Notify and require Lead Compliance Plan for worker safety.
	1000 – 1411 and DI WET < 1.5 mg/l	Y1	Hazardous Waste. Variance applies – cover with minimum 1 foot of clean soil. *
	1411 – 3397 and DI WET < 150 mg/l	Y2	Hazardous Waste. Variance applies – cover with pavement structure. *
	1000 – 3397 but Surplus	Z2	Hazardous Waste. Surplus. Dispose at Class 1 disposal site.
	> 3397 or 1000 – 3397 and DI WET > 150 mg/l	Z2	Hazardous Waste. Not reusable under Variance. Dispose at Class 1 disposal site.
TLC >5.0	TTLC < 1411 and DI WET < 1.5 mg/l	Y1	Hazardous Waste. Variance applies – cover with minimum 1 foot of clean soil. *
	1411 – 3397 and DI WET < 150 mg/l	Y2	Hazardous Waste. Variance applies – cover with pavement structure. *

Soluble Lead (mg/l)	Total Lead (mg/kg)	Soil Type	Handling
	< 3397 and DI WET < 150 mg/l but Surplus	Z2	Hazardous Waste. Surplus. Dispose at Class 1 disposal site.
	> 3397 or DI WET > 150 mg/l	Z2	Hazardous Waste. Variance applies – cover with pavement structure.
Federal Testing			
TCLP > 5.0 mg/l	N/A	Z3	Resource Conservation and Recovery Act (RCRA) Hazardous Waste. Dispose at Class 1 disposal site as a RCRA waste regardless of TTLC and STLC results.

* Note: For hazardous waste levels of lead – if pH is less than 5.5 soil must be placed under a pavement structure. If pH is less than 5.0 variance cannot be used and the soil must be disposed as Z-2 material. (Source: Caltrans Website: Caltrans Environmental Analysis)

All contaminated soils would be collected and placed into sealed waste containers. The waste containers would be properly documented and disposed of at a Class I landfill, such as the Clean Harbors Buttonwillow LLC facility in Buttonwillow, California (CAD980675276) or the Chemical Waste Management Inc. Kettleman facility in Kettleman City, CA (CAT000646117).

Timing/Implementation: During construction
Enforcement: County, federal Environmental Protection Agency
Monitoring: County and/or its contractor

Mitigation Measure HAZ-2: Asbestos-Containing Building Material

The County would include provisions in the construction bid documents to help ensure the proper removal and disposal of asbestos-containing building material found on the existing bridge. The following measure would be implemented to reduce construction-related environmental impacts that could result from asbestos removal:

- Prior to the start of construction, the existing bridge's building material and irrigation/drainage canal components will be assessed for asbestos by a Certified Asbestos Consultant at least 10 business days prior to commencing work. If present, the following measure will be used:

- Asbestos-containing building material will be removed using one of several methods approved by the EPA and Cal/OSHA, at the contractor's discretion. Acceptable methods include wet scraping or the use of a dustless needle gun connected to a vacuum unit with a high-efficiency particulate absorbing (HEPA) filter that empties directly into a waste container. The waste container will be properly documented and disposed of at a Class I landfill, such as the Clean Harbors Buttonwillow LLC facility in Buttonwillow, CA (CAD980675276) or the Chemical Waste Management Inc. Kettleman facility in Kettleman City, CA (CAT000646117).

Timing/Implementation: During construction

Enforcement: County, San Joaquin Valley Unified Air Pollution Control District, federal Environmental Protection Agency, California Division of Occupational Health and Safety
Monitoring: County and/or its contractor

Mitigation Measure HAZ-3: Thermoplastic Traffic Striping

The County would include provisions in the construction bid documents to help ensure the proper removal and disposal of contaminated thermoplastic traffic striping material found along Milton Road. The following measure would be implemented to reduce construction-related environmental impacts that could result from removal of contaminated thermoplastic traffic striping:

- Prior to the start of demolition/construction activities, roadway striping must be tested for the presence of lead and cadmium at concentrations above the hazardous waste threshold, if plans call for their removal by planing, grinding, or sandblasting.
- Contaminated material will be removed using one of several methods approved by the EPA and Cal/OSHA, at the contractor's discretion and disposed of directly into a waste container. The waste container will be properly documented and disposed of at a Class I landfill, such as the Clean Harbors Buttonwillow LLC facility in Buttonwillow, CA (CAD980675276) or the Chemical Waste Management Inc. Kettleman facility in Kettleman City, CA (CAT000646117).

Timing/Implementation: During construction
Enforcement: County, San Joaquin Valley Unified Air Pollution Control District, federal Environmental Protection Agency, California Division of Occupational Health and Safety
Monitoring: County and/or its contractor

X. Hydrology and Water Quality

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality??			Yes	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?				Yes
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on- or off-site;			Yes	

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;			Yes	
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			Yes	
iv) impede or redirect flood flows?			Yes	
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				Yes
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				Yes

Discussion of Impacts

a) **Less-than-Significant Impact.** A Water Quality Technical Memorandum, which details the existing hydrological and water quality related characteristics of the project study area, was prepared for the project (North State Resources, Inc. 2017c). The project falls under the several laws and regulations that relate to water quality and discharge requirements. These include the CWA, the Porter-Cologne Water Quality Control Act, and regulations under the State Water Resources Control Board and the Central Valley RWQCB. At this time there are no known water quality assessments of Rock Creek (North State Resources 2017b). There is also no gauge data available regarding pathogens, nutrients, or sediment. As such, Rock Creek is not considered impaired under CWA Section 303(d), nor is Salt Spring Reservoir which is located upstream of the project site.

Project construction associated with the new bridge, road improvements, and the demolition of the old bridge would require ground-disturbing activities in and adjacent to Rock Creek. Construction and staging areas would be disturbed by vehicles and various construction-related activities that would make these areas susceptible to erosion by stormwater runoff. Additionally, the project would include the use of fuels and lubricants to operate construction equipment and other machinery, as well as solvents, paints, or other hazardous materials. Accidental spills or leaks of construction-related hazardous materials could discharge into the creek and adjacent surface waters, resulting in adverse water quality impacts. However, adverse effects from stormwater runoff or hazardous material spills are not expected to occur. Water quality objectives would be met through adherence to construction provisions, precautions, and stipulations as described in the National Pollutant Discharge Elimination System permit, Section 404 CWA permit, Section 401 CWA Water Quality Certification, and 1602 Streambed Alteration Agreement. The County would require the contractor to prepare and implement a SWPPP to reduce or minimize discharge of pollutants from construction activities These measures, along with the implementation of *Conservation Measure #1 – Erosions and Sedimentation Control* and *Conservation Measure #2 –*

Prevention of Accidental Spills, would reduce potential impacts relating to quality standards or waste discharge requirements to a level considered less than significant.

b) **No Impact.** Construction and operation of the project would have no effect on groundwater supplies. There would be no net change in local aquifers or the local groundwater table as a result of the project.

c i-iv) **Less-than-Significant Impact.** Construction activities associated with the project are not anticipated to permanently alter the existing drainage pattern of the site or area in a way that would result in downstream erosion or sedimentation. Ground-disturbing activities that would occur during project construction would result in temporary alteration to local drainage patterns in the project area and may temporarily alter erosion rates. Depending on Rock Creek flows at the time of construction, a temporary water diversion may be required. Project construction activities are anticipated to occur between June and October, with all in-water activities completed during the summer/early fall months when water levels are at their lowest and flood risks are least likely. The water diversion system may include screened pumps, a temporary pipe network, siltation baffles, and cofferdams to route flow through or around the immediate work area to the downstream channel. The dewatering would include measures provided in regulatory agency permits to avoid or minimize impacts on aquatic resources. Water present in the work areas would either be treated per Storm Water Pollution Prevention Plan (SWPPP)requirements or disposed of per RWQCB requirements. This would result in a less-than-significant impact.

The project would not substantially alter the existing surface or instream drainage patterns of the project area. The larger, wider new bridge structure and realigned roadway approaches would slightly increase the amount of impervious surface in the project study area but would not require any new storm water or drainage facilities, as the runoff would continue to flow into Rock Creek. The amount of additional storm water runoff created from the project would not generate increased flooding in Rock Creek or nearby areas, resulting in a less-than-significant impact on drainage patterns or flooding.

The larger, wider new bridge structure and roadway approaches would increase the amount of impervious surface in the project area resulting in a slight, but less-than-significant increase in storm water runoff and the potential for polluted runoff (e.g., lubricants), but would not exceed existing or proposed drainage facility capacities routed to Rock Creek and adjacent surface waters. The old bridge and abutments would be removed, along with the old roadway approaches. These and other areas are subject to project construction disturbance and would be restored to natural conditions.

A Floodplain Evaluation Report was prepared for the project to assess the existing floodplain and to determine any potential impacts to or encroachments on the floodplain of Rock Creek (Wreco 2016). The project is not located within a regulatory floodway and is within an designated as Zone X which represents a minimal flood hazard. This study used the U.S. Army Corps of Engineers' Hydrologic Engineering Centers River Analysis System (HEC-RAS). The 100-year peak flow is 4,580 cubic feet per second. Although the proposed bridge would be longer than the existing bridge, the geometric differences in the bridge structures result in a slight increase in the water surface elevations (WSEs) for the 100-year storm event. The 100-year WSEs in the vicinity of the existing and proposed bridge locations are presented in Table 4.

Table 4. 100-Year Water Surface Elevations

River Station	Description	Existing Elevation[1]	Proposed Elevation[1]
603	5 feet upstream of existing bridge	220.3	220.5
576.1 BR U	Upstream face of existing bridge	220.3	—
576.1 BR D	Downstream face of existing bridge	220.1	—
556.9	2 feet downstream of existing bridge	220.1	220.3
537.7 BR U	Upstream face of proposed bridge	—	220.1
537.7 BR D	Downstream face of proposed bridge	—	220.0
513.4	45 feet downstream of existing bridge	220.1	220.0
465.2	94 feet downstream of existing bridge	220.1	220.1

Note: 1) Water Surface Elevation presented in feet NAVD 88
NAVD 88 = North American Vertical Datum of 1988
BR U = Upstream bridge face, BR D = Downstream bridge face

The proposed bridge would improve the hydraulics since it has a wider hydraulic opening compared to the existing bridge; however, it would result in a small rise in WSE of approximately 0.2 feet upstream of the bridge. The hydraulic modeling shows the existing bridge and existing approach roadway are overtopped during the 100-year storm event. For the proposed bridge, only the southern approach roadway is overtopped during the 100-year storm event, which is an improvement over existing conditions. The project would have less-than-significant impact with respect to these issues.

d) **No Impact.** Because the project area is not near any large bodies of water, there is no risk of inundation from seiches or tsunamis. Because the project area is not located in a mountainous region, there is no risk of inundation from mudflows. The project would have no impact with respect to these issues.

e) **No Impact.** Construction and operation of the project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. This includes the Water Quality Control Plan for the Central Valley Region (Central Valley RWQCB 2019).

Mitigation Measures

Conservation Measure #1 – Erosion and Sedimentation Control and *Conservation Measure #2 – Prevention of Accidental Spills* (described in Section 2.5) would be used if necessary. No project-specific mitigation is required under this subject.

XI. Land Use and Planning

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Physically divide an established community?				Yes
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?				Yes

Discussion of Impacts

a) **No Impact.** The proposed bridge would replace the existing bridge over Rock Creek. Milton Road is used primarily by residents to access properties. The project would not divide a community. While there may be minor delays to traffic passing along Milton Road during construction, the temporary detour would allow access through the project area. For these reasons, the project would have no impact with respect to physically dividing an established community.

b) **No Impact.** The project would not require any changes to land uses or zoning and would not conflict with the Stanislaus County General Plan or Zoning Ordinances. The project would not conflict with any applicable conservation plans.

Mitigation Measures

No project-specific mitigation is required under this subject.

XII. Mineral Resources

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource classified MRZ-2 by the State Geologist that would be of value to the region and the residents of the state?				Yes
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?				Yes

Discussion of Impacts

a, b) **No Impact.** According to the Stanislaus County General Plan (2016), which relies upon the State Division of Mines and Geology report, Mineral Land Classification of Stanislaus County, California (Special Report 173), sand and gravel deposits constitute the only commercially significant extractive mineral resources in the region. No such deposits exist at or near the project area and therefore, the project would have no impact to mineral resources. No locally important mineral resource recovery sites are located within the project site. Project implementation would not result in the loss of availability of a valuable mineral resource.

Mitigation Measures

No project-specific mitigation is required under this subject.

XIII. Noise

Would the project result in:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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?			Yes	
b) Generation of excessive groundborne vibration or groundborne noise levels?			Yes	
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?				Yes

Discussion of Impacts

a) **Less-than-Significant Impact.** Stanislaus County Code 10.46.060 (Specific noise source standards) states that for construction equipment:

> "No person shall operate any construction equipment so as to cause at or beyond the property line of any property upon which a dwelling unit is located an average sound level greater than seventy-five decibels between the hours of seven p.m. and seven a.m."

Equipment used during construction activities is expected to temporarily generate noise at and near the project area, causing a temporary increase in ambient noise levels immediately adjacent to the project area. **Error! Not a valid bookmark self-reference.**5 shows typical noise emission levels from common construction equipment (Federal Transit Administration 2006). The three loudest pieces of equipment that are likely to operate at the same time include a jackhammer, a grader, and a truck. The combined maximum noise level for this equipment is 92 A-weighted decibels (dBA) at a distance of 50 feet. The nearest residence is approximately 0.5 mile (~2,640 feet) to the west of the project study area; this distance would substantially reduce the level of construction noise reaching the residence. Noise generated from a point source, such as construction equipment, typically attenuates at a rate of 6 dBA per doubling of distance over hard surfaces (Federal Highway Administration 2011). The maximum noise level reaching the nearest residence would be approximately 56 dBA. This is well below the noise level restriction set in the Stanislaus County Code for construction equipment operation.

Table 5. Construction Equipment Noise Emission Levels

Equipment	Typical Noise Level (dBA) 50 feet from Source
Air Compressor	81
Backhoe	80
Ballast Equalizer	82
Ballast Tamper	83
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Concrete Vibrator	76
Crane Derrick	88
Crane Mobile	83
Dozer	85
Generator	81
Grader	85
Impact Wrench	85
Jack Hammer	88
Loader	85
Paver	89
Pile Driver (Impact)	101

Equipment	Typical Noise Level (dBA) 50 feet from Source
Pile Driver (Sonic)	96
Pneumatic Tool	85
Pump	76
Rail Saw	90
Rock Drill	98
Roller	74
Saw	76
Scarifier	83
Scraper	89
Shovel	82
Spike Driver	77
Tie Cutter	84
Tie Handler	80
Tie Inserter	85
Truck	88

Source: Federal Transit Administration (2006). Transit Noise and Vibration Impact Assessment.
key: db(A) = decibels attenuated

In addition, the Noise Element of the Stanislaus County General Plan contains records of average daily noise levels for two locations near the project area. Average daily noise levels were recorded to be 68 dBA (~30 feet to center of State Route 132) and 75 dBA (~50 from centerline of State Route 120) at the two long-term monitoring locations closest to the project area (Stanislaus County 2016). The maximum noise level reaching the nearest residence would be well below both of these average daily noise levels.

Because the noise levels reaching the nearest residence is both well below both the noise level restriction set in the Stanislaus County Code for construction equipment operation and the known average daily noise levels in the general location of the project, the project would have a temporary less-than-significant impact with respect to construction noise.

After construction, the project would not increase noise levels because it would not include any new noise sources or new land uses that would generate additional vehicle trips, nor would the project change the volume or type of vehicles using Milton Road. Therefore, the project would have no impact with respect to permanent noise increases.

b) **Less-than-Significant Impact.** Construction activities associated with the operation of heavy equipment may generate localized groundborne vibration. Vibration from non-impact construction is generally below the threshold of perception when the activity is more than 50 feet from the receptor. Additionally, vibration from these activities would be temporary, ending when construction is completed. Because construction activity is not anticipated to involve high-impact activities (e.g., pile driving) and because the nearest residence is well over 50 feet from on-site construction activity, the vibration impact of construction activities is considered less than significant.

c) **No Impact.** The project is not located in the vicinity of an airport or landing strip. No impact related to an airport or landing strip would occur as a result of the project.

Mitigation Measures

No project-specific mitigation is required under this subject.

XIV. Population and Housing

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				Yes
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				Yes

Discussion of Impacts

a) **No Impact.** Replacement of the existing Rock Creek Tributary Bridge structure would have no effect on population or housing in the vicinity of the project area. It would improve traffic safety on Milton Road where it crosses Rock Creek Tributary and would not increase traffic capacity or extend road access beyond what is available without the project. Therefore, the project would have no impact related to inducing population growth.

b) **No Impact.** Existing housing in the vicinity of Milton Road near Rock Creek Tributary would not be displaced by the project and no replacement housing would be required.

Mitigation Measures

No project-specific mitigation is required under this subject.

XV. Public Services

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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:				
Fire protection?				Yes
Police protection?				Yes
Schools?				Yes
Parks?				Yes
Other public facilities?				Yes

Discussion of Impacts

a) **No Impact.** The project would not cause substantial adverse physical impacts on government facilities or negatively affect fire/police protection, schools, parks, or public facilities. The proposed bridge would also provide an improved, safer road and bridge across Rock Creek Tributary. Therefore, the project would have a no impact on public resources. No significant adverse impacts on service ratios, response times, or service objectives for any of the public services are anticipated.

Mitigation Measures

No project-specific mitigation is required under this subject.

XVI. Recreation

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				Yes
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?				Yes

Discussion of Impacts

a) **Less-than-Significant Impact.** The project would replace an existing bridge and would not result in increased use of existing local or regional parks, or other recreational facilities as there are no such facilities located near the project site.

b) **No Impact.** The project would not construct or expand recreational facilities; therefore, no impact would occur.

Mitigation Measures

No project-specific mitigation is required under this subject.

XVII. Transportation/Traffic

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

Discussion of Impacts

a) **Less-than-Significant Impact.** The project is not anticipated to substantially increase either the number of vehicle trips, volume-to-capacity ratio, or congestion at intersections along Milton Road. The project is consistent with the goals and policies of the County's General Plan.

b) **No Impact.** The project consists of a bridge replacement, with the new bridge being slightly wider and longer than the existing bridge. Milton Road at the bridge site would remain open for the duration of construction via the existing adjacent to the proposed bridge that would be installed. Therefore, the project would not conflict with Section 15064.3, subdivision (b).

c) **No Impact.** The project would not result in the creation of sharp curves, dangerous intersections, or incompatible uses. Roadway modifications would involve realigning Milton Road between existing curves north and south of the bridge. North of the new bridge, a set of reversing horizontal curves would provide the roadway transition between the new bridge and the northern roadway conform point. This transition north of the bridge would be approximately 700 feet long. South of the bridge, a single horizontal curve would be used to align the road between the existing roadway and the new bridge. The transition south of the bridge would be approximately 780 feet long. The

new roadway approaches would be paved to conform to the existing roadway condition. The project is designed to provide a slightly wider, safer bridge crossing across Rock Creek Tributary.

d) **Less-than-Significant Impact.** During construction of the replacement bridge, traffic would be maintained along the existing bridge and roadway approaches. Although temporary, short-duration disruptions to normal traffic operation may occasionally occur during project construction. However, Milton Road would remain open to traffic during construction and the County would notify emergency service providers of the project and the detour prior to construction. The project would have a less-than-significant impact on emergency vehicle access.

Mitigation Measures

No project-specific mitigation is required under this subject.

XVIII. Tribal Cultural Resources

Would the project: cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or				Yes
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.				Yes

Discussion of Impacts

a) **No Impact.** There are no tribal cultural resources listed or eligible for listing on the California Register of Historical Resources or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k).

b) **No Impact.** In accordance with Public Resources Code sections 5024.1, 5097.94, 21074, and 21080.3, commonly known as Assembly Bill 52, the County sent notification letters, cultural resources reports, and a map via U.S. mail and email to the Native American tribes who may have knowledge of cultural resources in the area of potential effect on four separate occasions: February 7, 2015; September 24, 2019; February 25, 2021; and July 13, 2022. The following tribes were

contacted based on a list of tribes provided by the NAHC: Calaveras Band of Mi-Wuk Indians, California Valley Miwok Tribe a.k.a. Sheep Ranch Rancheria of Me-Wuk, California Valley Miwok Tribe, Chicken Ranch Rancheria of Me-Wuk Indians, Nashville Enterprise Miwok-Maidu-Nishinam Tribe, North Valley Yokuts Tribe, Southern Sierra Valley Miwuk Nation, Tule River Indian Tribe, and Wilton Rancheria. Follow-up emails and phone calls were made to tribal representatives. No significant concerns with any known tribal cultural resources were identified by any of the tribal representatives. Multiple tribes requested to be informed of the project through continued consultation during construction and to be notified if any tribal cultural resources, archaeological resources, other cultural resources, articulated or disarticulated human remains are discovered during construction. No tribal representatives requested to provide Native American monitors during construction.

Additionally, NAHC conducted a review of its Sacred Lands database for culturally significant properties and responded by email on June 22, 2022, indicating that the Sacred Lands File contained no records of Native American cultural resources in the immediate area, and no tribal cultural resources were identified in the project area. Project construction and operation would have no impact on tribal cultural resources.

Mitigation Measures

No project-specific mitigation is required under this subject.

XIX. Utilities and Service Systems

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

Discussion of Impacts

a) **Less-than-Significant Impact.** A CVIN telecommunications conduit on the west side of the existing bridge and a buried fiber optic line on the east side of the bridge may need to be relocated to the new bridge during construction. The County would coordinate the relocation with the construction contractor and utility company to help ensure that all relocation activities are confined to the project study area. Temporary, short-term disruptions of utility service may occur during the relocation. All potentially affected property owners would be notified by the County, the utility company, or the construction contractor approximately one week prior to the service interruption. No other utility relocations are anticipated.

b) **No Impact.** No new or expanded water entitlements would be required for the project.

c) **No Impact.** The project does not in involve any actions that would generate wastewater.

d) **Less-than-Significant Impact.** Construction activities associated with the project could generate solid waste in the form of demolished materials, asphalt pieces, metal pilings, and other trash. Non-hazardous solid waste generated at the project site would be disposed of at a suitable facility. The project is not likely to generate solid waste in amounts that would adversely affect the existing capacity of the local landfill and would occur for short-time period during the 8-10 month construction period. The contractor would be responsible for removing the existing bridge from the site. This impact is expected to be less than significant.

e) **Less-than-Significant Impact.** Any solid waste generated by the project would be disposed of at an approved landfill in compliance with local, state, and federal regulations pertaining to solid waste disposal. This impact is expected to be less than significant.

Mitigation Measures

No project-specific mitigation is required under this subject.

XX. Wildfire

Would the project result in:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				Yes
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?			Yes	
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?			Yes	

Would the project result in:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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?				Yes

Discussion of Impacts

a) **No Impact.** During project activities, Milton Road at the bridge site would remain open for the duration of construction. The project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. Project operation would be consistent with existing conditions.

b, c) **Less-than-Significant Impact**. Based on current mapping, the fire hazard potential of lands in the project area is mapped as having "high" fire hazard potential by the U.S. Department of Agriculture (USDA 2020) and not mapped as a fire risk according to the California Public Utilities Commission Fire-Threat Map (CPUC 2020). The project activities, including a bridge replacement, would not exacerbate fire risks or result in ongoing impacts to the environment. Implementation of *Conservation Measure #7 – Wildfire Potential* (described in Section 2.5) would further reduce the potential for wildfire. The project's wildfire risk potential would be less than significant.

d) **No Impact.** The project profile would provide sufficient gradient for drainage of roadway surfaces, and as such, the project would not expose people or structures to significant risks as a result in drainage changes, runoff, or slope instability.

Mitigation Measures

Conservation Measure #7 – Wildfire Potential (described in Section 2.5) would be used if necessary. No project-specific mitigation is required under this subject.

XXI. Mandatory Findings of Significance

(To be filled out by lead agency if required)	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, 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?		Yes		
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively			Yes	

(To be filled out by lead agency if required)	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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?		Yes		

Discussion of Impacts

a) **Less than Significant with Mitigation Incorporated.** As discussed in the preceding sections, the proposed project has a potential to impact biological and cultural resources. Special-status plant species that could be affected by the project are Colusa grass, Greene's tuctoria; Ahart's dwarf rush; Beaked clarkia; Dwarf downingia; and Legenere. Special-status wildlife species that could be affected by the project are vernal pool fairy shrimp, vernal pool tadpole shrimp, California tiger salamander, Western spadefoot, Western pond turtle, burrowing owl, Swainson's hawk, white-tailed kite, loggerhead shrike, Pallid bat, Western red bat and American badger. The project would also have minor impacts on wetlands and riverine habitat. Potential impacts on resources and the specified species are discussed in detail in the corresponding sections above. Conservation and mitigation measures required to reduce the significance of project impacts are summarized in Chapter 5. With implementation of the required mitigation measures, potential impacts would be reduced to a less-than-significant level. The project would not significantly impact cultural resources CA-STA-97/98 and CA-STA-450H through the implementation of an ESA Action Plan. Although cultural resources are not likely to be affected, there is the potential for previously undetected cultural resources or human remains to be affected by project activities. Therefore, conservation measures (see Chapter 5) have been incorporated into the proposed project to help ensure protection of any such resources in the event of inadvertent discovery. The project is consistent with the existing land uses, and the relevant plans and policies that govern such projects.

b) **Less-than-Significant Impact.** The project would include improvements to an existing transportation system by replacing an existing bridge structure with a new bridge. The project would not introduce new development into a previously undeveloped area. The project would be constructed primarily within the existing County ROW, with up to 0.91 acres of permanent takes of additional ROW to accommodate the new bridge and approach roadway alignment from adjacent properties. For the most part, impacts associated with the project would be limited to the construction phase and can be fully mitigated for at the project level. As a result, cumulative impacts are considered to be less than significant.

c) **Less than Significant with Mitigation Incorporated.** The project could result in a variety of impacts on human beings; however, only during the construction phase. Potential adverse impacts on nearby residential areas along Milton Road are related to minor temporary decreases in air quality, hazards and hazardous materials, temporary minor increases in noise levels during

construction, and minor hazards related to vehicle use of the temporary detour. Conservation and mitigation measures, as described in the corresponding sections above, would be implemented to avoid or minimize potentially adverse effects to humans resulting from the construction of the project. The project would not involve any actions that would have a substantial direct or indirect impact on the human environment that cannot be mitigated to a less-than-significant level.

4. DETERMINATION

Based on this initial evaluation:

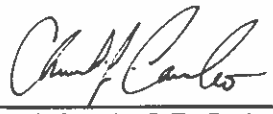
☐ I find that the proposed project COULD NOT have a significant effect on the environment and a NEGATIVE DECLARATION will be prepared.

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

☐ I find that the proposed 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 is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed 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 ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



Dated: 3/1/23

Chuck Covolo, P.E., Project Manager
Stanislaus County Public Works Department

5. MITIGATION MONITORING AND REPORTING PROGRAM

This chapter presents the Mitigation Monitoring and Reporting Program (MMRP) project. The purpose of this MMRP is to memorialize the mitigation responsibilities of the Stanislaus County Public Works Department (County) in implementing the proposed project. The mitigation measures listed herein are required by law or regulation and would be adopted by the County as part of the overall project approval. Mitigation is defined by CEQA Section 15370 as a measure that:

- Avoids the impact altogether by not taking a certain action or parts of an action,
- Minimizes impacts by limiting the degree or magnitude of the action and its implementation,
- Rectifies the impact by repairing, rehabilitating, or restoring the impacted environment,
- Reduces or eliminates the impact over time by preservation and maintenance operations during the life of the project, or
- Compensates for the impacts by replacing or providing substitute resources or environments.

Mitigation measures provided in this MMRP have been identified in Chapter 3, Environmental Setting, Impacts, and Mitigation Measures of the IS/MND and are considered feasible and effective in mitigating project-related environmental impacts.

This MMRP includes discussions of the following: legal requirements, intent of the MMRP; development and approval process for the MMRP; the authorities and responsibilities associated with implementation of the MMRP; a method of resolution of noncompliance complaints; and a summary of monitoring requirements.

5.1 Legal Requirements

The legal basis for the development and implementation of the MMRP lies within CEQA (including the California Public Resources Code). Sections 21002 and 21002.1 of the California Public Resources Code state:

- Public agencies are not to approve projects as proposed if there are feasible alternatives or feasible mitigation measures available that would substantially lessen the significant environmental effects of such projects.
- Each public agency shall mitigate or avoid the significant effects on the environment of projects that it implements or approves whenever it is feasible to do so.

Section 21081.6 of the California Public Resources Code further requires that:

- The public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to help ensure compliance during project implementation.

- The monitoring program must be adopted when a public agency makes its findings under CEQA so that the program can be made a condition of project approval in order to mitigate significant effects on the environment. The program must be designed to help ensure compliance with mitigation measures during project implementation to mitigate or avoid significant environmental effects.

5.2 Intent of the Mitigation Monitoring and Reporting Program

The MMRP is intended to satisfy the requirements of CEQA as they relate to the project. It would be used by County staff, participating agencies, project contractors, and mitigation monitoring personnel during implementation of the project. The primary objective of the MMRP is to help ensure the effective implementation and enforcement of adopted mitigation measures and permit conditions. The MMRP would provide for monitoring of construction activities as needed, on-site identification and resolution of environmental problems, and proper reporting to lead agency staff.

5.3 Development and Approval Process

The timing elements for implementing mitigation measures and the definition of the approval process are provided in detail throughout this MMRP to assist the County by providing the most usable monitoring document possible.

5.4 Authorities and Responsibilities

The County, functioning as the CEQA Lead Agency, would have the primary responsibility for overseeing the implementation of the MMRP and would be responsible for the following activities:

- coordination of monitoring activities
- reviewing and approving status reports
- maintenance of records concerning the status of all approved mitigation measures

The County, also the implementing agency, would be responsible for implementing the mitigation measures by incorporating them into the project specifications (i.e., the contract documents) and enforcing the conditions of the contract in the field during construction. Some pre- and post-construction activities may be implemented directly by the County.

5.5 Resolution of Noncompliance Complaints

Any person or agency may file a complaint that alleges noncompliance with the mitigation measure(s) adopted as part of the approval process for the proposed project. The complaint would be directed to the County's project manager in written form describing the purported violation in detail. The County would investigate and determine the validity of the complaint. If noncompliance with a mitigation measure is verified, the County would take the necessary action(s) to remedy the violation. Complaints would be responded to in writing including descriptions of the County's investigation findings and the corrective action(s) taken, if applicable.

5.6 Summary of Monitoring Requirements

Following this discussion are the conservation measures, mitigation measures and associated monitoring requirements for the proposed project. Conservation measures include standard BMPs that would be used during construction. Mitigation measures are organized by environmental issue area (e.g., Biological Resources).

- Conservation Measures: describes the schedules of activities, prohibitions of practices, maintenance procedures, and structural or managerial practices, which will be used either singly or in combination to prevent or reduce the release of pollutants, or otherwise minimize the potential for adverse effects on environmental resources. The same conservation numbering system used in the IS/MND is carried forward in this MMRP.
- Mitigation Measure(s): lists the mitigation measure(s) identified for each potentially significant impact discussed in the IS/MND. The same mitigation numbering system used in the IS/MND is carried forward in this MMRP.
- Timing/Implementation: Indicates at what point in time or project phase the mitigation measure will need to be implemented.
- Enforcement: Indicates which agency or entity is responsible for enforcement of the mitigation measure(s).
- Monitoring: Indicates which agency or entity is responsible for implementing and monitoring each mitigation measure.
- Verification: Provides a space to be signed and dated by the individual responsible for verifying compliance with each mitigation measure.

5.7 Conservation Measures

The following conservation measures and BMPs would be followed during project construction to avoid or minimize potential environmental impacts:

Conservation Measure #1: Erosion and Sedimentation Control

Erosion control measures would be implemented during construction of the project. These measures would conform to the provisions in Section 21 of the Caltrans Standard Specifications (Caltrans 2018) and the special provisions included in the contract for the project. Such provisions include the preparation of a SWPPP or Water Pollution Control Program depending on size of the area of disturbance, these plans would describe and illustrate the use of BMPs to be implemented at the project site.

Erosion control measures to be included in the SWPPP, Water Pollution Control Program, or to be implemented by the County include the following:

- To the extent practicable, activities that increase the erosion potential will be restricted to the relatively dry summer and early fall period to minimize the potential for rainfall events to transport sediment to surface water features. If these activities must take place during the late fall, winter, or spring, then temporary erosion and sediment control structures will be in place and operational

at the end of each construction day and will be maintained until permanent erosion control structures are in place.

- Vegetation clearing and ground-disturbing activity will be limited to the minimum area necessary for project implementation.
- Areas where woody vegetation needs to be removed will be identified in advance of ground disturbance and will be limited to only those areas that have been approved by the County. Within 10 days of completion of construction in those areas, weed-free mulch will be applied to disturbed areas to reduce the potential for short-term erosion. Prior to a rain event, or when weather forecasts by the National Weather Service indicate a greater than 50 percent possibility of rain within the next 24 hours, weed-free mulch will be applied to all exposed areas at the completion of the day's activities. Soils will not be left exposed during the rainy season.
- Suitable BMPs, such as silt fences, straw wattles, or catch basins, will be placed below all construction activities at the edge of surface water features to intercept sediment before it reaches the waterway. These structures will be installed prior to any clearing or grading activities. Erosion control measures that employ monofilament netting will be prohibited within the work area.
- If spoil sites are used, they will be sited such that they do not drain directly into a surface water feature, if possible. If a spoil site drains into a surface water feature, catch basins will be constructed to intercept sediment before it reaches the feature. Spoil sites will be graded and vegetated to reduce the potential for erosion.
- Sediment control measures will be in place prior to the onset of the rainy season and will be monitored and maintained in good working condition until disturbed areas have been revegetated.
- All disturbed areas will be restored to preconstruction contours and revegetated, either through hydroseeding or other means, with native or approved non-invasive exotic species.

Conservation Measure #2: Prevention of Accidental Spills

Construction specifications would include the following measures to minimize the potential for adverse effects resulting from accidental spills of pollutants (e.g., fuel, oil, grease):

- A site-specific spill prevention plan would be completed and implemented for all potentially hazardous materials. This would include containment methods for any use of concrete or other hazardous materials according to Caltrans Standard Specifications (2018) Section 14-11.03. The plan would include the proper handling and storage of all potentially hazardous materials, including concrete, as well as the proper procedures for cleaning up and reporting any spills. If necessary, containment berms would be constructed to prevent spilled materials from reaching surface water features.
- Equipment and hazardous materials would be stored at least 50 feet away from all waterways.
- Vehicles and equipment used during construction would receive proper and timely maintenance to reduce the potential for mechanical breakdowns leading to a spill of materials. Maintenance

and fueling would be conducted in an area at least 50 feet away from waterways or within an adequate fueling containment area.

- For removal of the existing bridge, it would be required to submit a debris containment and collection plan per Caltrans Standard Specifications (2018) Section 14-11.13B (2). The plan must include shop drawings of containment systems complying with Section 59-2.01C (2) and include the name and location of the disposal facility that would accept any hazardous waste if determined to be present.

Conservation Measure #3: Prevention of Spread of Invasive Species

Construction specifications would include a requirement to prevent the spread of invasive plants in the work area. The contractor would implement the following measures:

- All equipment used for off-road construction activities will be weed free prior to entering the project area.
- If project implementation calls for mulches or fill, they will be weed free.
- Any seed mixes or other vegetative material used for revegetation of disturbed sites will consist of locally adapted native plant materials to the extent practicable.

Conservation Measure #4: General Measures for Protection of Special-Status Wildlife Species

The County would implement the following general conservation measures to avoid or minimize the potential for adverse effects on special-status wildlife species:

- Prior to initiation of construction activities, workers will participate in environmental awareness training provided by a qualified biologist. The training will instruct workers: 1) how to identify special-status species, their various life forms, their habitat components; 2) the potential for these species to be discovered and/or affected during construction activities; 3) how to identify sensitive habitats (e.g., wetlands, riparian); and 4) what to do if special-status species are encountered during construction activities.
- Construction access and equipment will be located on existing roads or previously disturbed parking areas.
- Vehicle speeds within off-road portions of the work area will not exceed 15 mph to avoid collisions with wildlife.
- Disturbance of soil, vegetation, naturally occurring debris piles (including fallen trees, woodrat nests, or dead tree snags), rocky outcrops, and existing burrows or crevices will be avoided or minimized to the extent possible.
- To the extent practicable, all holes or trenches will be covered at the end of each workday to prevent wildlife from becoming trapped. All holes and trenches will be inspected before each workday to facilitate the release of any trapped wildlife. A qualified biologist will be consulted if work crews are unable to safely assist in the release of trapped wildlife.

- To minimize attractants to wildlife, trash will be stored in containers that can be closed and latched or locked to prevent access by wildlife. All loose trash will be cleaned up daily.

Conservation Measure #5: Human Remains

Surface surveys are not infallible and buried resources may be overlooked. Implementation of the following conservation measures would avoid or minimize the potential for significant effects to newly discovered resources:

- If human remains are discovered during project activities, all activities near the find will be suspended and the Stanislaus County Sheriff–Coroner will be notified. If the coroner determines that the remains may be those of a Native American, the coroner will contact the NAHC. Treatment of the remains will be conducted in accordance with the direction of the County Coroner and/or NAHC as appropriate.

Conservation Measure #6: Greenhouse Gas Emissions

Construction contract documents include provisions to minimize project-related GHG emissions. The following measures would be implemented to reduce construction-related GHG emissions:

- Reuse and recycle construction and demolition waste including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard.
- Check that the project enhances, and does not disrupt or create barriers to, non-motorized transportation (e.g., bicycles, pedestrians) through proper preconstruction planning.
- Protect existing trees to the extent possible and encourage the planting of new trees.

Conservation Measure #7: Wildfire Potential

Construction contract documents include measures to minimize project-related potential for wildfire ignition:

- Per the requirements of Public Resources Code Section 4442, the County will include a note on all construction plans that internal combustion engines will be equipped with an operational spark arrester, or the engine must be equipped for the prevention of fire.

5.8 Mitigation Measures

This MMRP includes the following mitigation measures to be implemented during construction of the project:

Air Quality

Mitigation Measure AQ-1: Air Quality/Dust Control

In the construction bid documents, the County would include provisions that the contractor would implement a dust control program to limit fugitive dust emissions. The dust control program would include, but not be limited to, the following elements, as appropriate:

- The construction contractor will comply with the SJVAPCD Regulation VIII as it pertains to fugitive dust (PM_{10}).
- To control dust, apply water to inactive portions of the construction site and exposed stockpiles at least twice daily or until soils are sufficiently stable to prevent being carried away by winds.
- Water will be applied on disturbed open soil by means of pressure-type distributors or pipelines equipped with a spray system or hoses and nozzles that will help ensure even distribution of water.
- All distribution equipment will be equipped with a positive means of shutoff.
- If reclaimed water is used, the sources and discharge must meet California Department of Health Services water reclamation criteria and the Central Valley RWQCB requirements. Non-potable water will not be conveyed in tanks or drain pipes that will be used to convey potable water and there will be no connection between potable and non-potable supplied. Non-potable tanks, pipes and other conveyances will be marked "NON-POTABLE WATER – DO NOT DRINK."
- Equipment or manual watering will be conducted on all stockpiles, dirt/gravel roads, and exposed or disturbed soil surfaces (inactive construction sites), as necessary, to reduce airborne dust.
- Pursuant to California Vehicle Code, all trucks hauling soil and other loose material to and from the construction site will be covered or should maintain at least 6 inches of freeboard (i.e., minimum vertical distance between the top of the load and the trailer).
- Any topsoil removed during construction will be stored on-site in piles no higher than four feet to allow development of microorganisms prior to replacing the soil in the construction area. The topsoil piles will be clearly marked and flagged. Topsoil piles that will not immediately be used in the construction area will be revegetated with a non-persistent erosion control mixture.
- Soil piles for backfill will be marked and flagged separately from native topsoil stockpiles. These soil piles will also be surrounded by silt fencing, straw wattles, or other sediment barriers or covered unless they are to be used immediately.
- All stockpiles, dirt/gravel roads, and exposed or disturbed soil surfaces will be watered by hand or with watering equipment, as necessary, to reduce airborne dust.
- All on-site unpaved roads and off-site unpaved access roads will be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.
- All land clearing, grubbing, scraping, excavation, land leveling, grading, cut & fill, and demolition activities will be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.
- Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles will be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant. Materials applied as temporary stabilizers will also provide wind erosion control benefits.

- If the project generates 150 or more vehicle trips per day, the construction contractor will prevent carryout and trackout.

Timing/Implementation: Prior to construction, during construction, and post construction
Enforcement: SJVAPCD
Monitoring: County and/or its contractor

Completed (y/n)	Date	Initials	Notes (Optional)

Biological Resources

Mitigation Measure BR-1: Special-Status Plants

- A protocol-level botanical survey will be conducted prior to construction during the blooming periods for potential special-status plant species within the project study area. If no special-status plant species are observed, then no further mitigation is required. If any special-status plant species are located in the project study area, then the following measures will be implemented.

- Any topsoil removed during construction will be stored on-site in piles no higher than four feet to preserve the seed bank and allow development of microorganisms prior to replacing the soil in the construction area. The topsoil piles will be clearly marked and flagged. Topsoil piles that will not immediately be used in the construction area will be revegetated with a non-persistent erosion control mixture.

Timing/Implementation: Prior to construction, during construction, and post construction
Enforcement: United States Fish and Wildlife Fisheries Service, California Department of Fish and Wildlife, California Department of Transportation
Monitoring: County and/or its contractor

Completed (y/n)	Date	Initials	Notes (Optional)

Mitigation Measure BR-2: Vernal Pool Fairy Shrimp/Vernal Pool Tadpole Shrimp

Stanislaus County would implement the following measures to minimize construction impacts on vernal pool branchiopods and its habitat:

- A qualified biologist knowledgeable of vernal pool branchiopods will provide a resource discussion during a worker environmental awareness training. The discussion will include how to identify the species, their habitats, relevant life history information, where the species would be likely to occur in the project study area, the state and federal laws pertaining to the species, and penalties for noncompliance with applicable laws.

- Topsoil from one seasonal wetland (SW-2) that is to be temporarily disturbed will be stockpiled and replaced during restoration activities. Topsoil from the feature will be clearly marked and

flagged and will be stored separately from the other construction materials and stored on-site in piles.

- Adequate fencing will be placed and maintained around any avoided (preserved) seasonal wetlands to prevent impacts from construction vehicles.

- A qualified biologist will be present to monitor all ground-disturbing activities (e.g., clearing, grubbing, grading, excavation, backfilling) within 100 feet of sensitive aquatic resources (e.g., seasonal wetlands). The biological monitor will periodically inspect the fencing and construction-related activities to help ensure that no destruction of potential habitat for the listed vernal pool species occurs during the proposed activities. The biologist will have the authority to stop activities that may result in such take or destruction until appropriate corrective measures have been completed. The County will be required to report immediately any unauthorized impacts to the USFWS.

- To compensate for the removal of seasonal wetland habitat (0.37 acres) that provides potential habitat for vernal pool fairy shrimp and vernal pool tadpole shrimp, the County will preserve vernal pool habitat within a CDFW- and USFWS-approved conservation area/mitigation bank at a minimum of 1.11acre (a 3:1 ratio) for permanent impacts or pay into a CDFW- and USFWS-approved in-lieu fee fund.

Timing/Implementation: Prior to construction, during construction, and post construction
Enforcement: United States Fish and Wildlife Fisheries Service, California Department of Transportation
Monitoring: County and/or its contractor

Completed (y/n)	Date	Initials	Notes (Optional)

Mitigation Measure BR-3: California Tiger Salamander

Stanislaus County would implement the following measures to minimize construction impacts on California tiger salamander and its habitat:

- Ground-disturbing activities will be limited to daylight hours, and all clearing and grading activities in the project study area will be restricted to the dry season (June 15 to October 31) and will be coordinated with the USFWS and dependent on rainfall and site conditions.

- A qualified biologist knowledgeable of California tiger salamander will provide a resource discussion during a worker environmental awareness training. The discussion will include how to identify the species, its habitat, relevant life history and taxonomic information, where the species would be likely to occur in the project study area, what to do if the species is observed, the state and federal laws pertaining to the species, and penalties for noncompliance with applicable laws.

- No plastic, monofilament, jute, or similar erosion control matting that could entangle California tiger salamander will be used in the project study area. Possible substitutions include coconut coir matting, tackified hydroseeding compounds, or other material approved by the USFWS.

- During rain events and within 24 hours following rain events, all construction personnel will visually check for wildlife in the work area and around equipment and vehicles prior to resuming work. Construction personnel will keep vehicle speeds to 10 miles per hour or less in the work area to avoid wildlife.
- No canine or feline pets or firearms will be permitted in the project study area.
- If federally listed and/or state-listed species are found during construction activities, a qualified biologist will be immediately notified. As warranted, the qualified biologist may notify the USFWS and/or CDFW about the species observed. All construction activities having the potential to injure or harass special-status species or habitat will be immediately stopped. The qualified biologist will evaluate the situation and will have authority to halt any construction activities until appropriate corrective measures have been implemented or it is determined that special-status species will not be harmed. The qualified biologist will remain in the area for the remainder of the workday to make sure the special-status species are not harmed. Any federally listed species encountered during construction activities will be allowed to move away from construction activities on their own. Capture and relocation are not permitted unless specifically approved in advance by the USFWS and/or CDFW. Any dead or injured federally listed or state-listed species will be immediately reported to the qualified biologist and the USFWS or CDFW and consultation with USFWS and/or CDFW will need to be re-initiated.
- Work areas that are temporarily disturbed will be revegetated with an assemblage of native vegetation suitable for the area.
- To compensate for the removal of annual grassland habitat that provides potential dispersal and refugia habitat for California tiger salamander, the County will preserve dispersal/refugia habitat within a CDFW- and USFWS-approved conservation area/mitigation bank at a minimum of 1.48 acres (0.22 acres [a 1:1 ratio] for temporary impacts and 1.26 acres [a 1:1 ratio] for permanent impacts) or pay into a CDFW- and USFWS-approved in-lieu fee fund.

Timing/Implementation: Prior to construction, during construction, and post construction
Enforcement: United States Fish and Wildlife Fisheries Service, California Department of Fish and Wildlife, California Department of Transportation
Monitoring: County and/or its contractor

Completed (y/n)	Date	Initials	Notes (Optional)

Mitigation Measure BR-4: Western Pond Turtle

The following measures would be implemented to avoid or minimize the potential for adverse impacts on Western pond turtle:

- Environmental Awareness Training: Construction personnel training would be conducted by a qualified biologist prior to onset of work to brief them on how to recognize Western pond turtle and other special-status animals (e.g., Western spadefoot and California tiger salamander) that may occur in the project study area.

- Western Pond Turtle Relocation: If pond turtles are encountered in the project study area during construction and could be harmed by construction activities, work would stop in the area and the County would notify CDFW. Upon authorization from CDFW, a qualified biologist may relocate the individual(s) the shortest distance possible to a location containing habitat outside of the work area.

Timing/Implementation: Prior to and during construction
Enforcement: California Department of Fish and Wildlife, California Department of Transportation
Monitoring: County and/or its contractor

Completed (y/n)	Date	Initials	Notes (Optional)

Mitigation Measure BR-5: Burrowing Owl/Swainson's Hawk/White-Tailed Kite/Loggerhead Shrike

The following measures would be implemented to avoid or minimize the potential for significant impacts on burrowing owl, Swainson's hawk, white-tailed kite, and loggerhead shrike:

- If construction activities, including vegetation clearing, are conducted completely outside of the nesting season (i.e., after September 30 and before February 1), no further measures are necessary. If construction activities must occur during the nesting season (i.e., from February 1 to September 30), the following measures will be implemented.

- Because construction activities cannot avoid the breeding season for these bird species, the County will retain a qualified biologist to conduct a preconstruction survey, within the project study area and within an appropriate distance from the project site boundary, as access is available (e.g., 0.25 mile for Swainson's hawk, 250 feet for burrowing owls, and 500 feet for white-tailed kite and loggerhead shrike). The preconstruction survey will be performed between February 15th and September 15th, but no more than 14 days prior to the implementation of construction activities (including staging and equipment access).

- If active nests or burrows are found during the preconstruction survey, the County will coordinate with CDFW on additional protection measures, such as establishment of a buffer around the nest tree or burrow (e.g., typically 1,000 feet for Swainson's hawk nests, 250 feet for active burrows of burrowing owls, 50 feet for shrike). No construction activity will be conducted within this zone during the nesting season (generally February through August) or until such time that the biologist determines that the nest or burrow is no longer active. The buffer zone will be marked with flagging, stakes, or other means to mark the boundary. All construction personnel will be notified of the existence of the buffer and will avoid entering the buffer during the nesting season.

- If occupied burrows of burrowing owl are identified in the project study area outside the nesting season (September 1 through January 31), a 160-foot no-disturbance buffer will be established around the burrow until the burrow is no longer occupied. Non-invasive techniques may be used to remove owls from the burrow in coordination with CDFW, if necessary, to proceed with construction.

- Information on nesting special-status and migratory birds will be provided during the worker environmental awareness training.

Timing/Implementation: Prior to and during construction
Enforcement: California Department of Fish and Wildlife, California Department of Transportation
Monitoring: County and/or its contractor

Completed (y/n)	Date	Initials	Notes (Optional)

Mitigation Measure BR-6: Special-Status Bats

The following measures would be implemented to avoid or minimize the potential for significant impacts on pallid bat and Western red bat:

- In conjunction with the preconstruction nesting bird survey, a qualified biologist will conduct a reconnaissance-level preconstruction survey of suitable roosting locations in the project study area (e.g., the existing bridge).
- If the biologist finds evidence of bat roosts, the biologist will attempt to determine which species are present, which features are being used, and for which roosting purpose. If it is determined that roosting bats are not present or are only using the area as a night roost (i.e., no young are present in the roost), no further avoidance and minimizations measures are necessary.
- If during the survey, pallid bat or Western red bat day roost or maternity roosts are identified, the County will coordinate with CDFW to determine the next steps and appropriate methods for removal.
- Removal of the vegetation may need to be scheduled before the birthing season for bats (i.e., prior to May 1) or after young bats are able to fly (i.e., after August 31). Removal of active roosts should be conducted in a manner that allows the bats the best opportunity to leave during darker hours to increase their chance of finding new roosts with minimum exposure to predation during daylight.

Timing/Implementation: Prior to construction, during construction, and post construction
Enforcement: California Department of Fish and Wildlife, California Department of Transportation
Monitoring: County and/or its contractor

Completed (y/n)	Date	Initials	Notes (Optional)

Mitigation Measure BR-7: Migratory Birds and Raptors

The following measures would be implemented to avoid or minimize the potential for adverse impacts on nesting migratory birds and raptors:

- Vegetation Removal Prior to Nesting Season: If all necessary approvals have been obtained, potential nesting substrate (e.g., shrubs and trees) that would be removed by the project should be removed before the onset of the nesting season, which is March 1 through September 31, if practicable. This would help preclude nesting and substantially decrease the likelihood of direct impacts.

- Vegetation Removal During the Nesting Season: If vegetation removal and construction activities occur within nesting bird habitat between March 1 and September 31, a qualified biologist would conduct a preconstruction survey no more than two weeks before construction activities begin in that area. If an active nest is found, the biologist would determine a construction-free buffer zone to be established around the nest until the young have fledged. If a raptor nest is found that buffer would be 250 feet, unless a smaller buffer is approved by CDFW. The biologist would monitor the nest to help ensure construction activity would not disturb the reproductive process, and to determine when the young have fledged.

Timing/Implementation: Prior to and during construction
Enforcement: California Department of Fish and Wildlife, California Department of Transportation
Monitoring: County and/or its contractor

Completed (y/n)	Date	Initials	Notes (Optional)

Mitigation Measure BR-8: Waters of the United States

The following measures would be implemented to reduce construction-related impacts on waters of the United States:

- The County will comply with the terms of a Clean Water Act Section 404 permit issued by the Corps and Section 401 water quality certification issued by the Central Valley RWQCB for activities involving the discharge of fill material in the Rock Creek or wetlands. For activity in and along Rock Creek the County will also comply with the terms of a Streambed Alteration Agreement with CDFW (if determined necessary by CDFW) and the water quality certification from the Central Valley RWQCB. Prior to any discharge of dredged or fill material into wetlands and other waters located in the BSA or the removal of riparian vegetation, the required permits and authorizations will be obtained from the respective agencies. All terms and conditions of the required permits and authorizations will be implemented.

- All waters of the United States or State that are temporarily affected by project construction will be restored as close as practicable to their original contour and conditions within 10 days of the completion of construction activities.

- The County will design the roadway improvements to avoid direct and indirect impacts on the seasonal wetlands, to the greatest extent practicable, and designate all seasonal wetlands outside the area of permanent impact within the project study area as environmentally sensitive areas (refer to Figure 4 for wetland locations). These areas will be identified on construction drawings and demarcated in the field with flagging and signs identifying the area as off-limits to all

personnel, equipment, and ground-disturbing activities. Exclusionary fencing will be installed around wetland features outside of impact areas. In addition, water quality BMPs will be installed around the wetlands (outside the wetland boundaries) in a manner that prevents water, sediment, and chemicals from draining into the features, and all staging, storage, stockpile areas, and off-road travel routes will be located as far as practicable away from the seasonal wetlands.

- Implementation of avoidance and minimization efforts described above would minimize potential adverse effects on seasonal wetlands. Based on the current design drawings permanent impacts on the wetlands could occur; as such, the County will provide compensatory mitigation in coordination with the Corps, either through the purchase of mitigation credits from an approved mitigation bank of payment of in-lieu fees to the National Fish and Wildlife Foundation. The specific mitigation ratio will be identified during the consultation process with the Corps and will provide at least a 1:1 replacement ratio for impacts to wetlands.

Timing/Implementation: Prior to, during, and after construction
Enforcement: U.S. Army Corps of Engineers, Central Valley Regional Water Quality Control Board, California Department of Fish and Wildlife
Monitoring: County and/or its contractor

Completed (y/n)	Date	Initials	Notes (Optional)

Cultural Resources

Mitigation Measure CR-1: Cultural Resources

- Per Caltrans Exhibit 5.1 in Volume 2 of the Standard Environmental Reference, "it is Caltrans' policy to avoid cultural resources whenever possible. If buried cultural materials are encountered during construction, it is Caltrans' policy that work stop in that area until a qualified archaeologist can evaluate the nature and significance of the find. Additional survey will be required if the undertaking changes to include areas not previously surveyed." Per Attachment 4 of the Section 106 Programmatic Agreement, isolated prehistoric or historic finds of fewer than three items per 100 square meters are properties exempt from evaluation.

- A Native American monitor will be present during all project ground disturbance.

Timing/Implementation: During construction
Enforcement: Native American Heritage Commission and County
Monitoring: County and/or its contractor and the Native American Heritage Commission

Completed (y/n)	Date	Initials	Notes (Optional)

Geology and Soils

Mitigation Measure GEO-1: Paleontological Resources

- If paleontological resources are discovered during project construction, all work within 100 feet of the discovery site will stop until a qualified paleontologist can assess the significance of the find and recommend appropriate treatment. Stanislaus County will be responsible for ensuring that recommendations regarding treatment are implemented.

Timing/Implementation: During construction
Enforcement: County
Monitoring: County and/or its contractor

Completed (y/n)	Date	Initials	Notes (Optional)

Hazards and Hazardous Materials

Mitigation Measure HAZ-1: Aerially Deposited Lead

- Prior to the start of demolition/construction activities, soil adjacent to Milton Road that will be disturbed must be screened for the presence of ADL at concentrations above the hazardous waste threshold. Soil samples must be collected near each of the four bridge corners, at two location north of the existing bridge (where the new roadway will conform with existing), and at two location south of the existing bridge (where the new roadway will conform with existing). At each location, soil samples should be collected at 0–6 inches, 12–18 inches, and 24–30 inches below ground surface.

- In order for hazardous waste management requirements of Health and Safety Code, Chapter 6.5 and California Code of Regulations, Title 22 to be waived, lead-contaminated soils must not exceed the contaminant concentrations discussed in Section 9 of the variance and must meet all the conditions contained within the same section. Required handling of lead-contaminated soils is outlined in Table 1 and will depend on the level of lead contamination in the soils at the site.

Table 1. Lead Soil Management

Soluble Lead (mg/l)	Total Lead (mg/kg)	Soil Type	Handling
California Testing			
STLC <5.0	TTLC <1000	X	Non-hazardous Waste. Notify and require Lead Compliance Plan for worker safety.
	1000 – 1411 and DI WET < 1.5 mg/l	Y1	Hazardous Waste. Variance applies – cover with minimum 1 foot of clean soil. *
	1411 – 3397 and DI WET < 150 mg/l	Y2	Hazardous Waste. Variance applies – cover with pavement structure. *

Soluble Lead (mg/l)	Total Lead (mg/kg)	Soil Type	Handling
	1000 – 3397 but Surplus	Z2	Hazardous Waste. Surplus. Dispose at Class 1 disposal site.
	> 3397 or 1000 – 3397 and DI WET > 150 mg/l	Z2	Hazardous Waste. Not reusable under Variance. Dispose at Class 1 disposal site.
TLC >5.0	TTLC < 1411 and DI WET < 1.5 mg/l	Y1	Hazardous Waste. Variance applies – cover with minimum 1 foot of clean soil. *
	1411 – 3397 and DI WET < 150 mg/l	Y2	Hazardous Waste. Variance applies – cover with pavement structure. *
	< 3397 and DI WET < 150 mg/l but Surplus	Z2	Hazardous Waste. Surplus. Dispose at Class 1 disposal site.
	> 3397 or DI WET > 150 mg/l	Z2	Hazardous Waste. Variance applies – cover with pavement structure.
Federal Testing			
TCLP > 5.0 mg/l	N/A	Z3	Resource Conservation and Recovery Act (RCRA) Hazardous Waste. Dispose at Class 1 disposal site as a RCRA waste regardless of TTLC and STLC results.

* Note: For hazardous waste levels of lead – if pH is less than 5.5 soil must be placed under a pavement structure. If pH is less than 5.0 variance cannot be used and the soil must be disposed as Z-2 material. (Source: Caltrans Website: Caltrans Website for Hazardous Wastes)

- All contaminated soils will be collected and placed into sealed waste containers. The waste containers will be properly documented and disposed of at a Class I landfill, such as the Clean Harbors Buttonwillow LLC facility in Buttonwillow, California (CAD980675276) or the Chemical Waste Management Inc. Kettleman facility in Kettleman City, CA (CAT000646117).

Timing/Implementation: During construction
Enforcement: County, federal Environmental Protection Agency
Monitoring: County and/or its contractor

Completed (y/n)	Date	Initials	Notes (Optional)

Mitigation Measure HAZ-2: Asbestos-Containing Building Material

The County would include provisions in the construction bid documents to help ensure the proper removal and disposal of asbestos-containing building material found on the existing bridge. The following measure would be implemented to reduce construction-related environmental impacts that could result from asbestos removal:

- Prior to the start of construction, the existing bridge's building material and irrigation/drainage canal components will be assessed for asbestos by a Certified Asbestos Consultant at least 10 business days prior to commencing work. If present, the following measure will be used:

- Asbestos-containing building material will be removed using one of several methods approved by the EPA and Cal/OSHA, at the contractor's discretion. Acceptable methods include wet scraping or the use of a dustless needle gun connected to a vacuum unit with a HEPA filter that empties directly into a waste container. The waste container will be properly documented and disposed of at a Class I landfill, such as the Clean Harbors Buttonwillow LLC facility in Buttonwillow, CA (CAD980675276) or the Chemical Waste Management Inc. Kettleman facility in Kettleman City, CA (CAT000646117).

Timing/Implementation: During construction
Enforcement: County, San Joaquin Valley Unified Air Pollution Control District, federal Environmental Protection Agency, California Division of Occupational Health and Safety
Monitoring: County and/or its contractor

Completed (y/n)	Date	Initials	Notes (Optional)

Mitigation Measure HAZ-3: Thermoplastic Traffic Striping

The County would include provisions in the construction bid documents to help ensure the proper removal and disposal of contaminated thermoplastic traffic striping material found along Milton Road. The following measure would be implemented to reduce construction-related environmental impacts that could result from removal of contaminated thermoplastic traffic striping:

- Prior to the start of demolition/construction activities, roadway striping must be tested for the presence of lead and cadmium at concentrations above the hazardous waste threshold, if plans call for their removal by planing, grinding, or sandblasting.

- Contaminated material will be removed using one of several methods approved by the EPA and Cal/OSHA, at the contractor's discretion and disposed of directly into a waste container. The waste container will be properly documented and disposed of at a Class I landfill, such as the Clean Harbors Buttonwillow LLC facility in Buttonwillow, CA (CAD980675276) or the Chemical Waste Management Inc. Kettleman facility in Kettleman City, CA (CAT000646117).

Timing/Implementation: During construction
Enforcement: County, San Joaquin Valley Unified Air Pollution Control District, federal Environmental Protection Agency, California Division of Occupational Health and Safety
Monitoring: County and/or its contractor

Completed (y/n)	Date	Initials	Notes (Optional)

6. REPORT PREPARATION

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