Initial Study/
Mitigated Negative Declaration

for

City of Stockton
Bridge Rehabilitation and Replacement Project (PW1603/BPMP-5008(157))

February 2020

Prepared for:
City of Stockton
Public Works Department
425 North El Dorado Street
Stockton, CA 95202

Prepared by:
Sycamore Environmental Consultants, Inc.
6355 Riverside Blvd., Suite C
Sacramento, CA 95831

Table of Contents

Figures

Tables

1. Project Information

1. Project Title:

Bridge Rehabilitation and Replacement Project (PW1603/BPMP-5008(157))

2. Lead Agency Name and Address:

City of Stockton, Public Works Department
22 East Weber Avenue, Room 301
Stockton, CA 95202

3. Contact Person and Phone Number:

Ahbid Mohammad, Associate Engineer
City of Stockton, Public Works Department
209/ 937-5654

4. Project Location:

The City of Stockton proposes to conduct preventative bridge maintenance work at the six City of Stockton locations listed below. For the purposes of this report, the two bridge structures on West Lane are treated as one bridge location. The six bridge locations are listed below and shown on Figure 1.

- West Lane over Calaveras River (Bridge No 29C0157R/L, Note: The two bridge structures on West Lane are treated as one bridge location)
- Pershing Avenue over Calaveras River (Bridge No 29C0243)
- Diamond Street over Mormon Slough (Bridge No 29C0238)
- Aurora Street over Mormon Slough (Bridge No 29C0235)
- Santa Paula Way over Mosher Slough (Bridge No 29C0240).
- Turnpike Road over Walker Slough (Bridge No 29C0399)

The Project occurs on the Lodi South (T2N, R6E, Sections 9 and 16) and Stockton West (R6E and R7E, T1N, Sections 5, 11, 21, 29, 45) USGS Quads (Mt. Diablo Base and Meridian) and is in the San Joaquin Delta Hydrologic Unit (Hydrologic Unit Code 18040003), the Upper Calaveras California Hydrologic Unit (Hydrologic Unit Code 18040011), and the Rock Creek-French Camp Slough Hydrologic Unit (Hydrologic Unit Code 18040051). Elevation at the six Project sites range from approximately 10 to 25 feet above sea level.

5. Description of Project:

The City of Stockton Public Works Department (City) and Caltrans Division of Local Assistance are proposing various maintenance repairs to six bridges in the City. For the purposes of this document, the two bridge structures on West Lane are treated as one bridge location. The table below lists the six bridges and provides a brief work description. A detailed project description is in Section 3 of this Initial Study.

Six Bridge Locations and Brief Description of Work

Bridge	In-channel Work?
1. West Lane over Calaveras River (Bridge No 29C0157R/L)	Yes. Work includes in-channel scour protection.
2. Pershing Avenue over Calaveras River (Bridge No 29C0243)	No. Deck work only.
3. Diamond Street over Mormon Slough (Bridge No 29C0238)	Yes. Work includes in-channel scour protection. Channel is intermittent.
4. Aurora Street over Mormon Slough (Bridge No 29C0235)	Yes. Work includes in-channel scour protection. Channel is intermittent.
5. Santa Paula Way over Mosher Slough (Bridge No 29C0240)	No. Deck work only.
6. Turnpike Road over Walker Slough (Bridge No 29C0399)	No. Deck work only.

6. General plan designation:

The proposed Project occurs entirely within City street right of way.

7. Zoning:

The proposed Project occurs entirely within City street right of way.

8. Surrounding Land Uses and Setting:

The Project is located in an urban area and is bounded by urban residential, commercial, industrial, and transportation uses.

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

The Project may require permits or approvals from the following:

- Central Valley Regional Water Quality Control Board — Coverage under the Construction General Permit (Water Quality Order 2009-0009-DWQ)
- U.S. Army Corps of Engineers – Section 404 Clean Water Act Permit
- Central Valley Regional Water Quality Control Board (RWQCB) – Section 401 Water Quality Certification
- California Department of Fish and Wildlife (CDFW) – Streambed Alteration Agreement

2. Introduction

2.1 Project Brief

This document is an Initial Study/Mitigated Negative Declaration (IS/MND) for the City of Stockton Bridge Rehabilitation Project (Project). The Project occurs at six locations within the City of Stockton, San Joaquin County (Figures 1-1 through 1-5). The IS/MND has been prepared in compliance with the requirements of the California Environmental Quality Act (CEQA). For the purposes of this CEQA analysis, the City of Stockton (City) is the Lead Agency for the project.

The City Public Works Department and Caltrans Division of Local Assistance are proposing various maintenance repairs to six bridges in the City. The table below lists the six bridges and provides a brief work description. A detailed project description is in Section 3 of this Initial Study.

Six Bridge Locations and Brief Description of Work

Bridge	In-channel Work?
1. West Lane over Calaveras River (Bridge No 29C0157R/L)	Yes. Work includes in-channel scour protection.
2. Pershing Avenue over Calaveras River (Bridge No 29C0243)	No. Deck work only.
3. Diamond Street over Mormon Slough (Bridge No 29C0238)	Yes. Work includes in-channel scour protection. Channel is intermittent.
4. Aurora Street over Mormon Slough (Bridge No 29C0235)	Yes. Work includes in-channel scour protection. Channel is intermittent.
5. Santa Paula Way over Mosher Slough (Bridge No 29C0240)	No. Deck work only.
6. Turnpike Road over Walker Slough (Bridge No 29C0399)	No. Deck work only.

2.2 Purpose of Initial Study

CEQA requires that public agencies document and consider the potential environmental effects of the agency's actions that meet CEQA's definition of a "project." Briefly summarized, a "project" is an action that has the potential to result in direct or indirect physical changes in the environment. A project includes the agency's direct activities as well as activities that involve public agency approvals or funding. Guidelines for an agency's implementation of CEQA are found in the "CEQA Guidelines" (Title 14, Chapter 3 of the California Code of Regulations).

Provided that a project is not exempt from CEQA, the first step in the agency's consideration of its potential environmental effects is the preparation of an Initial Study. The purpose of an Initial Study is to determine whether the project would involve "significant" environmental effects, as defined by CEQA, and to describe feasible mitigation measures that would avoid significant effects or reduce them to a level that is less than significant. If the Initial Study does not identify significant effects, then the agency

prepares a Negative Declaration. If the Initial Study notes significant effects but also identifies mitigation measures that would reduce these significant effects to a level that is less than significant, then the agency prepares a Mitigated Negative Declaration. If a project would involve significant effects that cannot be readily mitigated, then the agency must prepare an Environmental Impact Report (EIR). The agency may also decide to proceed directly with the preparation of an EIR without an Initial Study.

The proposed project is a "project" as defined by CEQA and is not exempt from CEQA consideration. The City has determined that the project may potentially have significant environmental effects and therefore would require preparation of an Initial Study. This Initial Study describes the proposed project and its environmental setting, discusses the potential environmental effects of the project, and identifies feasible mitigation measures that would eliminate any potentially significant environmental effects of the project or reduce them to a level that would be less than significant. The Initial Study considers the project's potential for significant environmental effects in the following subject areas:

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

This Initial Study concludes that the project would have potentially significant environmental effects, all of which would be avoided or reduced to a level that would be less than significant with recommended mitigation measures. The project applicant has accepted all the recommended mitigation measures. As a result, the City has prepared a Mitigated Negative Declaration and has issued a public Notice of Intent to adopt the IS/MND for the project. The time available for comment on the IS/MND is shown in the Notice of Intent.

The remainder of this document is organized into the following sections:

- **Section 3, Project Description:** Provides a detailed description of the proposed Project;
- **Section 4, Initial Study Findings (Determination):** Provides a determination of the City's CEQA findings;
- **Section 5, Initial Study Checklist and Supporting Documentation:** Provides CEQA Initial Study Resource impact checklists and supporting documentation. Identifies the thresholds of significance, evaluates potential impacts, and describes mitigation measures necessary to reduce impact significance;

- **Section 6, Supporting Information Sources:** Identifies the personnel responsible for the preparation of this document and provides a list of the references cited throughout the document.
- **Appendix A, Mitigation Monitoring and Reporting Plan:** Contains the Mitigation Monitoring and Reporting Plan prepared for the proposed project. The Mitigation Monitoring and Reporting Plan includes a list of required mitigation measures and includes information regarding the City's policies and procedures for implementation and monitoring of the mitigation measures.

2.3 Project Background

Caltrans prepared Bridge Inspection Reports (BIR's) for each of the six bridges. These reports noted several deficiencies at each bridge, including deck cracking, abrasion and scour on the columns, leaking joint seals, and railing deficiencies. These six bridges qualify for Preventative Maintenance under the Bridge Preventative Maintenance Program (BPMP) administered by Caltrans.

2.4 Environmental Evaluation Checklist Terminology

The project's potential environmental effects are evaluated in the Environmental Evaluation Checklist presented in Chapter 3.0 of this IS/MND. The checklist includes a list of environmental considerations against which the project is evaluated. For each question, the City determines whether the project would involve 1) a Potentially Significant Impact, 2) a Less Than Significant Impact with Mitigation Incorporated, 3) a Less Than Significant Impact, or 4) No Impact.

- A Potentially Significant Impact occurs when there is substantial evidence that the project would involve a substantial adverse change to the physical environment, i.e., that the environmental effect may be significant, and mitigation measures have not been defined that would reduce the impact to a less than significant level. If there is a Potentially Significant Impact entry in the Initial Study, then an EIR is required.
- An environmental effect that is Less Than Significant with Mitigation Incorporated is a Potentially Significant Impact that can be avoided or reduced to a level that is less than significant with the application of mitigation measures.
- A Less Than Significant Impact occurs when the project would involve effects on a particular resource, but the project would not involve a substantial adverse change to the physical environment, and no mitigation measures are required.
- A determination of No Impact is self-explanatory.

This IS/MND identifies several potentially significant environmental effects related to the project. Some effects are "mitigated" by existing provisions of law and standards of practice related to environmental protection. Such provisions are considered in the environmental impact analysis, and the degree to which they would reduce potential environmental effects is discussed. Additional mitigation measures are specifically identified in this document where needed to reduce potential environmental effects to a less-than-significant level.

2.5 Summary of Environmental Effects and Mitigation Measures

Table 1 summarizes the results of the Environmental Evaluation Checklist and associated narrative discussion in Chapter 5.0 of this IS/MND. The potential environmental impacts of the proposed project are listed in the left-most column of this table. The level of significance of each impact is indicated in the

second column. Mitigation measures proposed to avoid or minimize the impacts are shown in the third column, and the significance of the impact after mitigation measures are applied is shown in the fourth column. The biological mitigation measures were developed through consultation with U.S. Fish and Wildlife Service and National Marine Fisheries Service. As previously noted, all potentially significant environmental effects identified in the IS/MND would be avoided or reduced to a level that would be less than significant with recommended mitigation measures. For all other issues, the project would have no impact or would have impacts that are less than significant.

Table 1. Summary of Environmental Impacts and Mitigation Measures

Resource Topic	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
Aesthetics			
Scenic vistas	LTS	None Required	--
Scenic resources	NI	None Required	--
Degrade visual character	LTS	None Required	--
New source of light or glare	NI	None Required	--
Agricultural and Forestry Resources			
Convert farmland	NI	None Required	--
Williamson Act	NI	None Required	--
Rezone of Forest land	NI	None Required	--
Loss of Forest land	NI	None Required	--
Air Quality			
Air quality plan conflict	NI	None Required	--
Air quality standard violations	LTS	None Required	--
Increase in criteria pollutant	NI	None Required	--
Sensitive receptors	LTS	None Required	--
Objectionable odors	LTS	None Required	--
Biological Resources			
Special-status species	PS	***Mitigation Measure BIO-1 (Saline clover, Delta Mudwort, and Slough Thistle)*** • *A focused botanical survey will be conducted for saline clover, Delta mudwort, and slough thistle*	LTS

Resource Topic	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
		*during the evident and identifiable blooming period at the **Pershing Avenue**, **West Lane**, and **Turnpike Road** project sites.* • *If saline clover, Delta mudwort, or slough thistle are not observed, no further action is needed.* • *If saline clover, Delta mudwort, or slough thistle are identified, they will be included in an ESA. The ESA non-disturbance buffer will be determined by a qualified botanist. The plant(s) will be clearly delineated using high visibility orange fencing. The ESA fencing will remain in place throughout the duration of the proposed action, while construction activities are ongoing, and will be regularly inspected and fully maintained at all times. The ESA fencing will be stalled prior to initial clearing of vegetation. Vehicles will not be allowed to park in, nor will equipment be stored in the ESA. No storage of oil, gasoline, or other substances will be permitted in the ESA. No vegetation removal or ground disturbing activities will be permitted in the ESA.* • *If rare plant populations cannot be protected in place, the City will prepare a transplantation/ propagation plan for the relocation of the rare plant(s). Rare plant relocation will occur in a*	

Resource Topic	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
		suitable area of the Project area or other suitable location determined by the City. The transplantation/ propagation plan will be sent to CDFW. ***Mitigation Measure BIO-2 (Listed Fish)*** • *A qualified biologist will train project staff on-site regarding habitat sensitivity, identification of listed fish species, and required practices before the start of construction. The training shall include the general measures that are being implemented to conserve listed fish species as they relate to the project, penalties for noncompliance, and boundaries of the construction area. A fact sheet or other supporting materials containing this information will be prepared and distributed. Upon completion of training, employees will sign a form stating that they attended the training and understand all the conservation and protection measures.* • *To ensure compliance with the Project's avoidance and minimization measures, a City-appointed inspector will be on-site whenever in-water work occurs. The construction inspector will make recommendations to the construction personnel, as needed, to comply with all project*	

Resource Topic	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
		implementation restrictions and guidelines. The construction inspector will be responsible for ensuring that the contractor maintains the staked and flagged perimeters of the construction area and staging areas adjacent to sensitive biological resources. A qualified biologist will be available during the construction period to assist the construction inspector if any special-status species are found and to answer questions and make recommendations regarding implementation of avoidance and minimization measures. • *The qualified biologist will be present during installation and removal of the diversion structure and dewatering activities. If listed fish species are observed, in-water work will be halted until they move out of the active work zone. If they remain in the construction zone for an extended period, NMFS or USFWS will be contacted for further guidance.* • *In-water work will be avoided at night to the maximum extent possible.* • *The temporary diversion structure will be designed so that fish passage is maintained up and down stream of the Project site. The diversion will not create an impassible barrier.*	

Resource Topic	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
		The diversion would allow flows to pass through the existing channel under the bridge while maintaining water quality. An open channel diversion will be used during construction to minimize impacts to listed fish species. The contractor will prepare a creek diversion and dewatering plan that complies with any applicable permit conditions. • *If temporary diversion structures are constructed with natural materials (i.e., gravel), the material will be composed of washed, rounded, spawning-sized gravel between 0.4 to 4 inches in diameter. If gravel is left in place after the diversion is removed, it shall be manually spread out using hand tools, if necessary, to ensure adequate fish passage for all life stages.* • *If pumps are used to temporarily divert a stream to facilitate construction, an acceptable fish screen must be used to prevent entrainment or impingement of small fish. Potential contact between fish and pump will be minimized and/or avoided by constructing an open basin prior to commencing dewatering.* ***Mitigation Measure BIO-3 (Western Pond Turtle)***	

Resource Topic	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
		• *A qualified biologist shall conduct a preconstruction survey for WPT within 48 hours prior to the onset of vegetation removal or ground disturbance at the **West Lane** bridge site in the Project area.* • *If WPT are found, construction activities with potential to harm the individual(s) will stop and a qualified biologist will be notified. Construction will resume when the biologist has either relocated the WPT out of the construction zone to nearby suitable habitat, or, after thorough inspection, determined that the WPT has moved away from the construction zone.* • *Environmental awareness training will be conducted by a qualified biologist prior to the onset of project work for construction personnel to brief them on how to recognize WPT. Construction personnel will be informed that if a WPT is encountered in the work area, construction should stop and a qualified biologist be notified. Education programs will be conducted for appropriate new personnel as they are brought on the job during the construction period. Upon completion of training, employees will sign a form stating that*	

Resource Topic	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
		they attended the training and understand all the conservation and protection measures. ***Mitigation Measure BIO-4 (MBTA)*** *Under the MBTA, nests that contain eggs or unfledged young are not to be disturbed during the breeding season. Nesting or attempted nesting by migratory birds and birds-of-prey is anticipated from 1 February to 30 September.* *Swallows and Other Bridge Nesters* *In California, bridge-nesting swallows typically arrive in mid-February, increase in numbers until late March, and remain until October. Nesting begins in April, peaks in June, and continues into August. Black phoebes, another bridge-nesting species, nest from March to August with peak activity in May. Measures should be taken to prevent establishment of nests on the bridges, culverts, headwalls, and other suitable structures prior to construction. Effective techniques to prevent nest establishment include using exclusion devices and removing and disposing of partially constructed and unoccupied nests of migratory or nongame birds on a regular basis to prevent their occupation. This can be done by:*	

Resource Topic	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
		• *On a weekly or more frequent basis, remove all partially completed nests using either hand tools or high-pressure water; and/or* • *Hang netting from the bridge before nesting begins. If this technique is used, netting should be in place from late February until project construction begins.* *Birds of Prey and Birds Protected by the Migratory Bird Treaty Act* • *If construction begins outside the 1 February to 30 September breeding season, there will be no need to conduct a preconstruction survey for active nests.* • *If applicable, trees scheduled for removal should be removed during the non-breeding season from 1 October to 31 January.* • *If construction is scheduled to begin between 1 February and 30 September, a biologist shall conduct a survey for active bird of prey nests within 500 ft and active MTBA bird nests within 100 ft of the Project area from publicly accessible areas within one week prior to construction. The measures listed below shall be implemented based on the survey results.* *No Active Nests Found:*	

Resource Topic	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
		• *If no active nest of a bird of prey, MBTA bird, or other CDFW protected bird is found, then no further avoidance and minimization measures are necessary.* *Active Nests Found:* • *If an active nest of a bird of prey, MBTA bird, or other CDFW protected bird is discovered that may be adversely affected by construction activities or an injured or killed bird is found, immediately:* o *Stop all work within a 100-ft radius of the discovery* o *Notify the Engineer* o *Do not resume work within the specified radius of the discovery until authorized.* ***Bird Species Protection Areas*** ***Identification*** — ***Location*** *Bird of Prey* — *500 ft no-disturbance buffer* *MBTA protected bird (not bird of prey)* — *100 ft no-disturbance buffer*	

Resource Topic	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures

		• *Activity in the ESA will be restricted as follows:*
		  o *Do not enter the ESA unless authorized*
		  o *If the ESA is breached, immediately:*
		  ▪ *Secure the area and stop all operations within 60 ft of the ESA boundary*
		  ▪ *Notify the Engineer*
		  o *If the ESA is damaged, the City determines what efforts are necessary to remedy the damage and who performs the remedy.*
		• *No construction activity will be allowed in the ESA until the biologist determines that the nest is no longer active, or unless monitoring determines that a smaller ESA will protect the active nest.*
		• *The size of an ESA may be reduced if the biologist monitors the construction activities and determines that no disturbance to the active nest is occurring. Reduction of ESA size depends on the species of bird, the location of the nest relative to the project, project activities during the time the nest is active, and other project-specific factors.*	

Resource Topic	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
		• *Between 1 February and 30 September, if additional trees or shrubs need to be trimmed and/or removed after construction has started, a survey will be conducted for active nests in the area to be affected. If an active nest is found, the above measures will be implemented.* • *If an active nest is identified in or adjacent to the construction zone after construction has started, the above measures will be implemented to ensure construction is not causing disturbance to the nest.*	
Sensitive natural communities	LTS	None Required	--
Wetlands	LTS with Mitigation	***Mitigation Measure BIO-5 (Waters and California Central Valley steelhead)*** • *During construction, water quality will be protected by implementation of BMPs consistent with the City's 'Stormwater Program Best Management Practices for all Construction Sites and the most recent Caltrans Stormwater Quality Handbooks to minimize the potential for siltation and downstream sedimentation of aquatic habitats.* • *At bridges crossing Mormon Slough, in-water construction activities will be restricted to the period between 15 April and the first qualifying rain event on or after 15 October (more than*	LTS

Resource Topic	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
		*one half inch of precipitation in a 24-hour period), subject to the Streambed Alteration Agreement and consultation with NMFS and USFWS, unless CDFW, NMFS and/or USFWS provide approval of work outside that period. In-water work may be restricted further to work windows determined by the CVFPB. At **West Lane** bridge over the Calaveras River, in-water construction activities will be restricted to the period between 1 June and the first qualifying rain event on or after 30 September to avoid take of outmigrating juvenile CCV steelhead.* • *The temporary stream crossing of Mormon Slough at the **Diamond Street Bridge** will be required to implement NS-4 "Temporary Stream Crossing" from the Caltrans (2003) Storm Water Quality Handbooks: Construction Site Best Management Practice Manual to minimize water quality impacts to Mormon Slough.* • *Equipment will be refueled and serviced at designated construction staging areas. All construction material will be stored and contained in a designated area that is located away from channel areas to prevent transport of materials into adjacent waterways. Appropriate BMPs will be installed to collect any discharge, and adequate materials for spill cleanup will be*	

Resource Topic	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
		kept on site. Construction vehicles and equipment will be maintained to prevent contamination of soil or water from external grease and oil or from leaking hydraulic fluid, fuel, oil, and grease. • *The City will mitigate at a minimum 1:1 ratio for impacts to wetlands and waters of the State in accordance with the State of California's no-net-loss of wetlands policy and minimum mitigation ratio for impacts to wetlands and waters of the State. The City will comply with any compensatory mitigation requirement of a Clean Water Act Section 404 permit, Section 401 Water Quality Certification or CDFW Streambed Alteration Agreement as applicable.*	
Wildlife movement & migration	LTS	None Required	--
Local policies and ordinances	NI	None Required	--
Habitat conservation plan	LTS	None Required	--
Cultural Resources			
Historical resources	NI	None Required	--
Archaeological resources	PS	***Mitigation Measure CULT-1 (Unanticipated Discoveries)*** • *If any subsurface cultural or paleontological resources are encountered during project construction, all activities shall be halted at the site of the encounter until a qualified*	LTS

Resource Topic	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
		archaeologist or paleontologist, as appropriate, can examine these materials, determine their significance and, if significant, recommend mitigation measures that would reduce potential effects to a level that is less than significant. Such measures could include 1) preservation in place or 2) excavation, recovery and curation by qualified professionals. The project applicant shall be responsible for retaining qualified professionals, implementing recommended mitigation measures, and documenting mitigation efforts in a written report, consistent with the requirements of the CEQA Guidelines.	
Paleontological resources	PS	***Mitigation Measure CULT-1 above***	LTS
Human remains	LTS	None Required	--
Tribal Cultural Resources			
Substantial adverse change in the significance of a tribal cultural resource	NI	None Required	--
Listed or eligible for listing in the California Register of Historical Resources	NI	None Required	--
resource determined by the lead agency	NI	None Required	--
Energy			

Resource Topic	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
Wasteful, inefficient, or unnecessary consumption	LTS	None Required	--
Conflict with plan	LTS	None Required	--
Geology and Soils			
Fault Rupture Hazards	LTS	None Required	--
Seismic Ground Shaking	LTS	None Required	--
Other Seismic Hazards	LTS	None Required	--
Landslides	NI	None Required	--
Soil Erosion	LTS	None Required	--
Geologic Instability	NI	None Required	--
Expansive Soils	LTS	None Required	--
Adequacy of Soils for Wastewater Disposal	NI	None Required	--
Greenhouse Gas Emissions			
Greenhouse gas emissions	LTS	None Required	--
Greenhouse gas plan conflict	LTS	None Required	--
Hazards and Hazardous Materials			
Use, transport or disposal	LTS	None Required	--
Accidental release	PS	***Mitigation Measure HAZ-1 (Testing and Remediation)*** • *Project specifications/ contract provisions will require preconstruction testing and remediation of potential recognized environmental concerns*	LTS

Resource Topic	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
		*(REC) in accordance with the most recent applicable Caltrans Standard Specifications. REC's identified at the **West Lane** bridge over Calaveras River, **Pershing Avenue** bridge over the Calaveras River, **Aurora Street** bridge over Mormon Slough, **Aurora Street** bridge over Mormon Slough, **Santa Paula Way** bridge over Mosher Slough, and **Turnpike Road** bridge over Walker Slough include ADL, ash/burned debris, regulated/ non-regulated wastes, and pavement striping.* • *In addition to the REC's identified above a REC for apparent used oil dumping was identified at the **Aurora Street** site. Project specifications/ contract provisions will require preconstruction testing and remediation of potential used oil dumping REC in accordance with the most recent applicable Caltrans Standard Specifications, as applicable.* • *Handling, storage, use, and disposal of hazardous materials during construction will comply with all applicable local, state, and federal standards.*	
Release within 0.25 mile of school	LTS	None Required	--
Cortese List	NI	None Required	--

Resource Topic	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
Airport	NI	None Required	--
Airstrip	NI	None Required	--
Emergency response plan	LTS	None Required	--
Wildland fire	NI	None Required	--
Hydrology/Water Quality			
Water quality standard violations	LTS	None Required	--
Groundwater	NI	None Required	--
Alter drainage and result in erosion	LTS	None Required	--
Alter drainage and result in flooding	LTS	None Required	--
Exceed the capacity of existing	LTS	None Required	--
Degrade water quality	NI	None Required	--
Housing within a 100-year flood hazard area	NI	None Required	--
Structure within a 100-year flood hazard area	NI	None Required	--
Impede flood flows	NI	None Required	--
Exposure to flooding	NI	None Required	--
Land Use, Planning, Population, and Housing			
Divide a community	NI	None Required	--
Conflict with land use plan	NI	None Required	--

Resource Topic	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
Conflict with HCP ort NCCP	NI	None Required	--
Mineral Resources			
Loss of availability of a known of locally important mineral resource or mineral resource recovery site	NI	None Required	--
Noise and Vibration			
Noise standards	LTS	None Required	--
Groundborne vibration/noise	LTS	None Required	--
Permanent increase	LTS	None Required	--
Temporary increase	LTS	None Required	--
Airport land use plan	NI	None Required	--
Private airstrip	NI	None Required	--
Population and Housing			
Induce population growth	LTS	None Required	--
Displace housing	NI	None Required	--
Displace people	NI	None Required	--
Public Services			
New/expanded facilities	NI	None Required	--
Recreation			
Increase use of existing parks	NI	None Required	--
Include recreational facilities	NI	None Required	--

Resource Topic	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
<u>Transportation/Traffic</u>			
Increase traffic	NI	None Required	--
Exceed LOS	NI	None Required	--
Change air traffic	NI	None Required	--
Design hazards	NI	None Required	--
Emergency access	LTS	None Required	--
Inadequate parking	LTS	None Required	--
Alternative modes	PS	***Mitigation Measure TRANS-1 (Calaveras River Bike Path, pedestrian/ bicycle trail)*** • *Where construction results in temporary closures of sidewalks and other pedestrian facilities, the City shall provide temporary pedestrian access, through detours or safe areas along the construction zone. Where construction activity results in bike route or bike path closures, appropriate detours shall be defined. Signs shall be placed along the closed bike path a minimum of 7 days prior to bike path closure notifying bicyclists of the proposed construction activities and duration of bike path closure. Notifications posted along the bike path shall include the locations of detours and alternate routes to avoid conflicts with the construction area.*	LTS
<u>Utilities and Service Systems</u>			

Resource Topic	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
Exceed wastewater treatment	NI	None Required	
New water or wastewater treatment facilities	NI	None Required	
New storm water drainage facilities	NI	None Required	
Sufficient water supplies	NI	None Required	
Wastewater treatment determination	NI	None Required	
Landfill capacity	NI	None Required	
Regulations related to solid waste	NI	None Required	
Wildfire			
Impair an adopted emergency response plan or emergency evacuation plan	NI	None Required	--
Exacerbate wildfire risks	NI	None Required	--
Installation or maintenance of associated infrastructure	NI	None Required	--
Expose people or structures	NI	None Required	--
Mandatory Findings of Significance			
Findings on Biological and Cultural Resources	PS	See previous listing above	LTS

Resource Topic	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
Findings on Individually Limited but Cumulatively Considerable Impacts	LS	None Required	--
Findings on Adverse Effects on Human Beings	LS	None Required	--

3. Project Description

The City of Stockton, in cooperation with Caltrans Division of Local Assistance, proposes to use Bridge Preventative Maintenance Program (BPMP) funds from the Federal Highway Administration (FHWA) to conduct preventative maintenance work on six bridges in the City of Stockton.

3.1 Location

The Project occurs within City of Stockton road right of way at six locations within the City, in central San Joaquin County (Figure 1 and Figure 2; Sheets 1-6). The Project occurs on the Lodi South (T2N, R6E, Sections 9 and 16) and Stockton West (Campo de los Franceses Civil Land Grant) U.S. Geographical Survey (USGS) topographic quadrangle (Mt. Diablo Base and Meridian). The Project is located in the San Joaquin Delta Hydrologic Unit (Hydrologic Unit Code 18040003), the Upper Calaveras California Hydrologic Unit (Hydrologic Unit Code 18040011), and the Rock Creek-French Camp Slough Hydrologic Unit (Hydrologic Unit Code 18040051). Elevation at the six sites comprising the BSA ranges from approximately 10 to 25 feet above sea level.

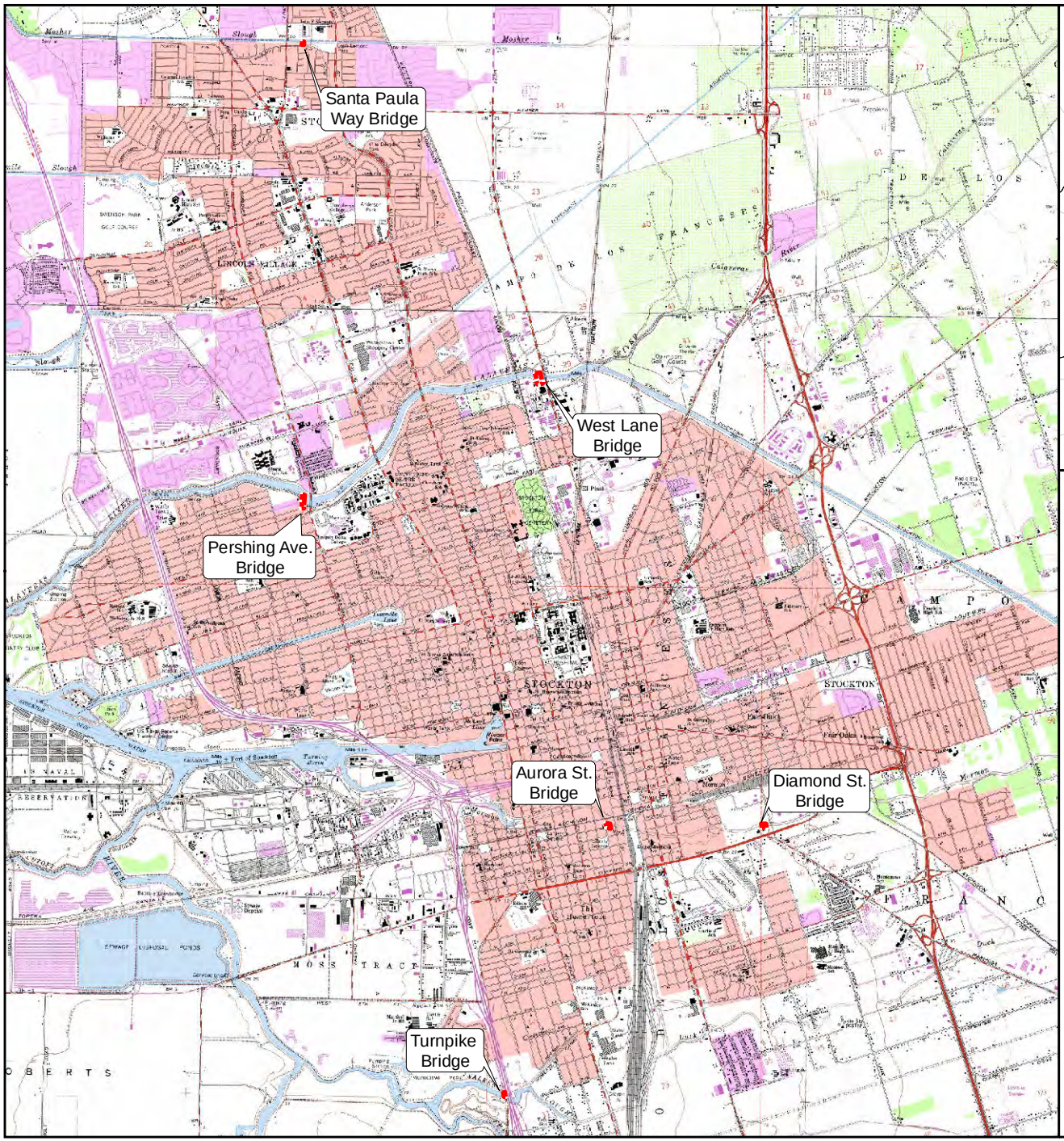
3.1 Project Purpose and Objectives

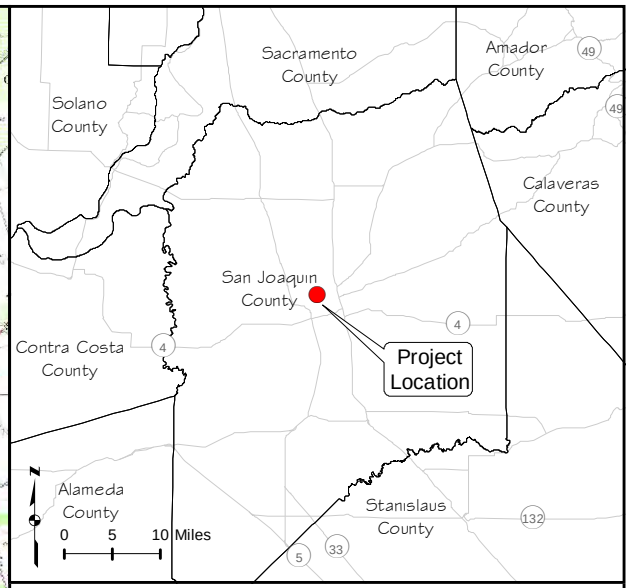
The purpose of the Project is to preserve the City's road and bridge infrastructure by conducting routine bridge preventative maintenance activities with the objective of eliminating deficiencies including deck cracking, abrasion and scour on the columns, leaking joint seals, and railing deficiencies.

3.2 History

Caltrans prepared Bridge Inspection Reports (BIR's) for each of the six bridges. These reports noted several deficiencies at each bridge, including deck cracking, abrasion and scour on the columns, leaking joint seals, and railing deficiencies. These six bridges qualify for Preventative Maintenance under the Bridge Preventative Maintenance Program (BPMP) administered by Caltrans.

MGE Engineering, the City's design consultant, prepared a Bridge Maintenance Recommendations Report (dated December 2017) to evaluate the six bridges, verify the deficiencies noted in Caltrans' BIR, note additional deficiencies, and recommend repairs.





Stockton BPMP 5008(157)
Bridge Rehabilitation Project
San Joaquin County, CA
12 February 2019

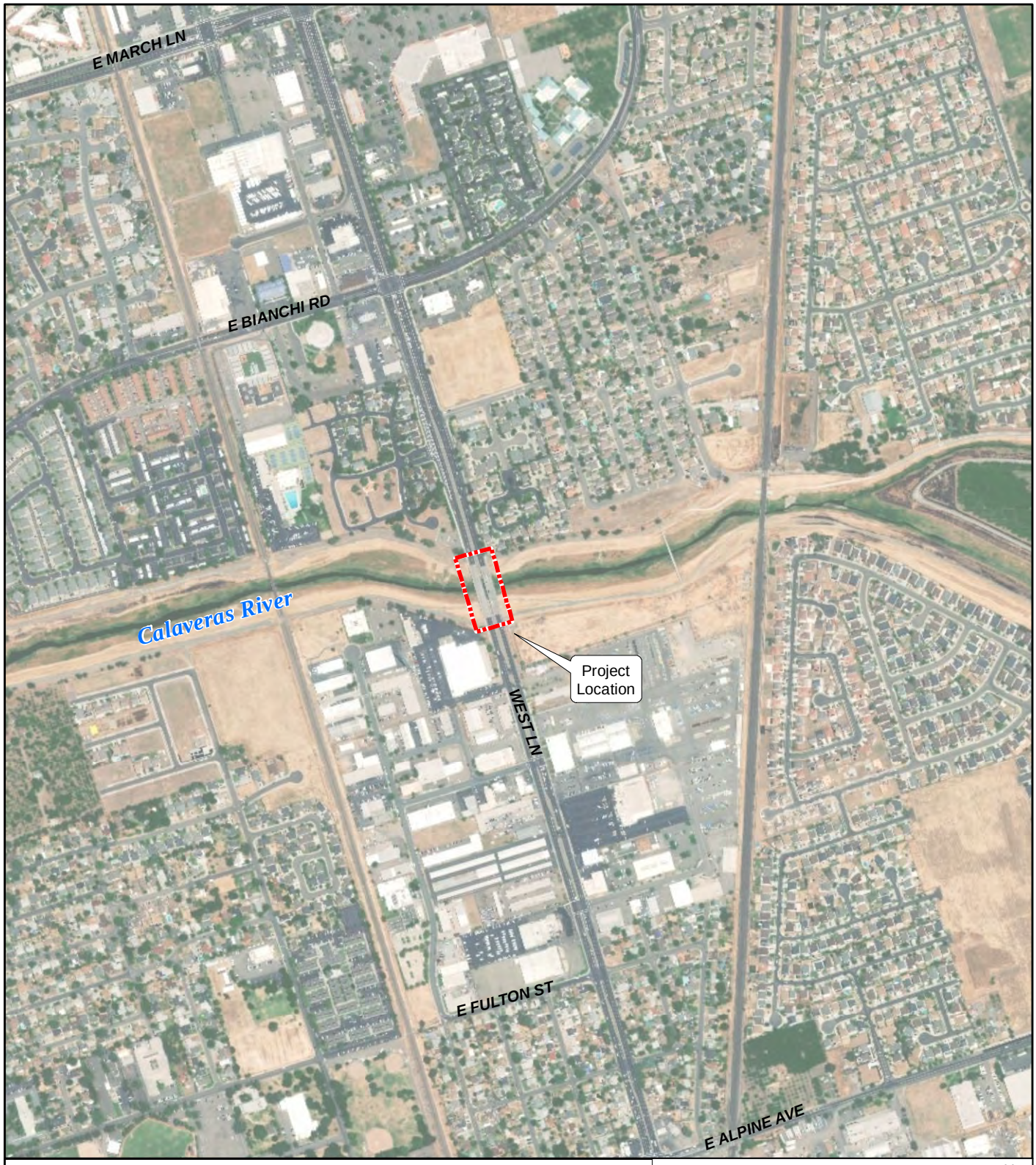
Figure 1. Location Map

Project Location
Bridge Locations

6,000 3,000 0 6,000 Feet
Scale: 1 inch = 6,000 feet
N

Topo Basemap:
Lodi South, CA 1976; Waterloo, CA 1978
Stockton East, 1987; Stockton West, 1987
USGS 7.5' Quadrangle DRG
CASIL California Digital Raster Graphics,
7.5 Minute (C) Series, Albers Nad83 Mosaics (MrSID)
o_nw0201.sid, o_sw0201.sid

16097StocktonBridgeRehabBPMP_Fig1LocationMap.mxd



Stockton BPMP 5008(157)
Bridge Rehabilitation Project
West Lane over Calaveras River (29C0157R/L)
San Joaquin County, CA
12 February 2019

800 400 0 800 Feet

Scale: 1 inch = 800 feet

N

Biological Study Area (BSA)

Figure 2. Aerial Photograph
Sheet 1 of 6

Aerial Photograph: 26 August 2016
UC-G Imagery, US-CA-Sacramento, Microsoft
ESRI ArcGIS Basemap Layer

16097StocktonBridgeRehabBPMP_WestLane_Fig2AerialPhoto.mxd

Stockton BPMP 5008(157)
Bridge Rehabilitation Project
Pershing Avenue over Calaveras River (29C0243)
San Joaquin County, CA
12 February 2019

800 400 0 800 Feet
Scale: 1 inch = 800 feet
N

Biological Study Area (BSA)

Figure 2. Aerial Photograph
Sheet 2 of 6

Aerial Photograph: 26 August 2016
UC-G Imagery, US-CA-Sacramento, Microsoft
ESRI ArcGIS Basemap Layer

16097StocktonBridgeRehabBPMP_Pershing_Fig2AerialPhoto.mxd

Stockton BPMP 5008(157)
Bridge Rehabilitation Project
Diamond Street over Mormon Slough (29C0238)
San Joaquin County, CA
12 February 2019

800 400 0 800 Feet

Scale: 1 inch = 800 feet

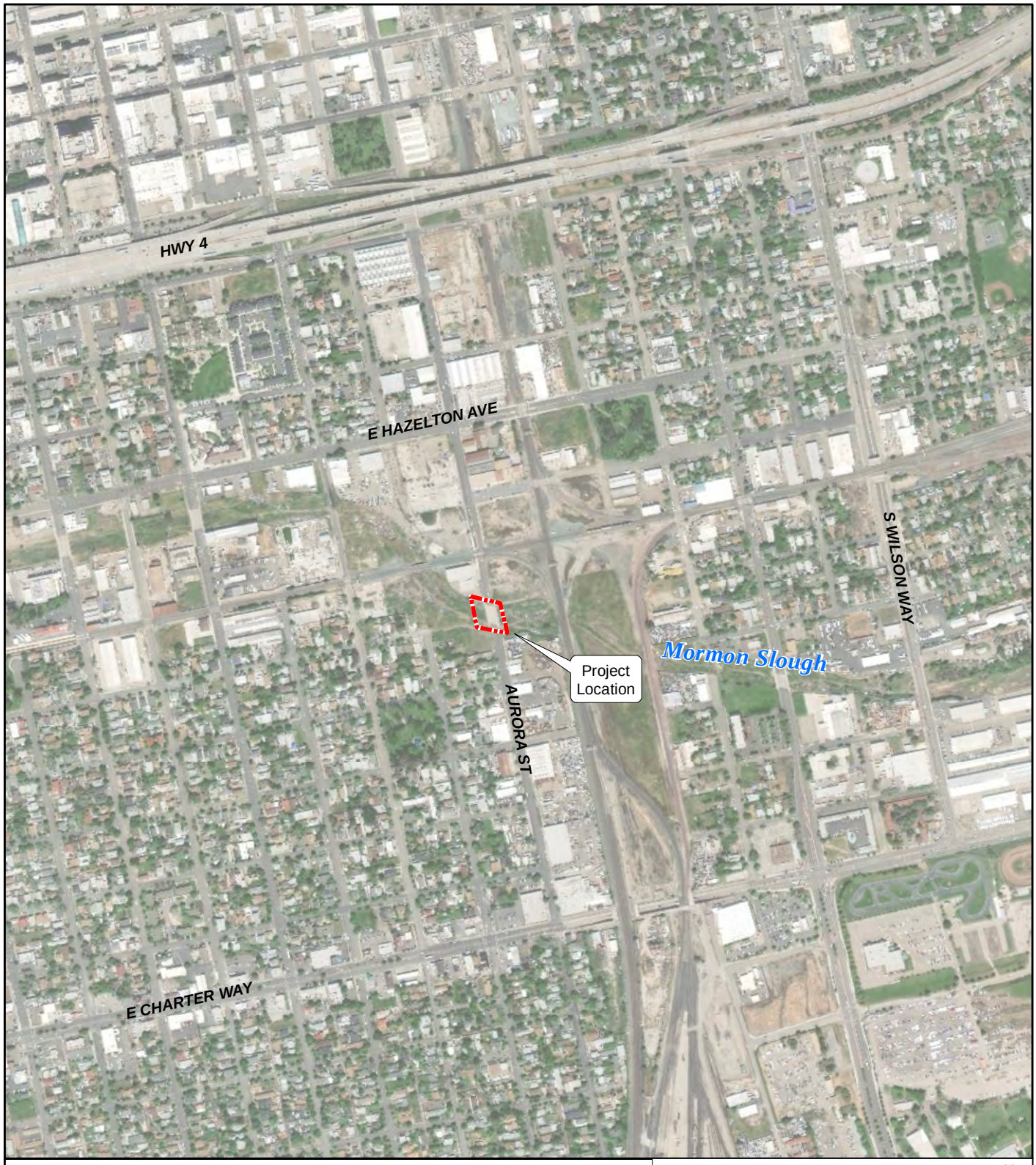
N

Biological Study Area (BSA)

Figure 2. Aerial Photograph
Sheet 3 of 6

Aerial Photograph: 26 August 2016
UC-G Imagery, US-CA-Sacramento, Microsoft
ESRI ArcGIS Basemap Layer

16097StocktonBridgeRehabBPMP_Diamond_Fig2AerialPhoto.mxd



Stockton BPMP 5008(157)
Bridge Rehabilitation Project
Aurora Street over Mormon Slough (29C0235)
San Joaquin County, CA
12 February 2019

800 400 0 800 Feet

Scale: 1 inch = 800 feet

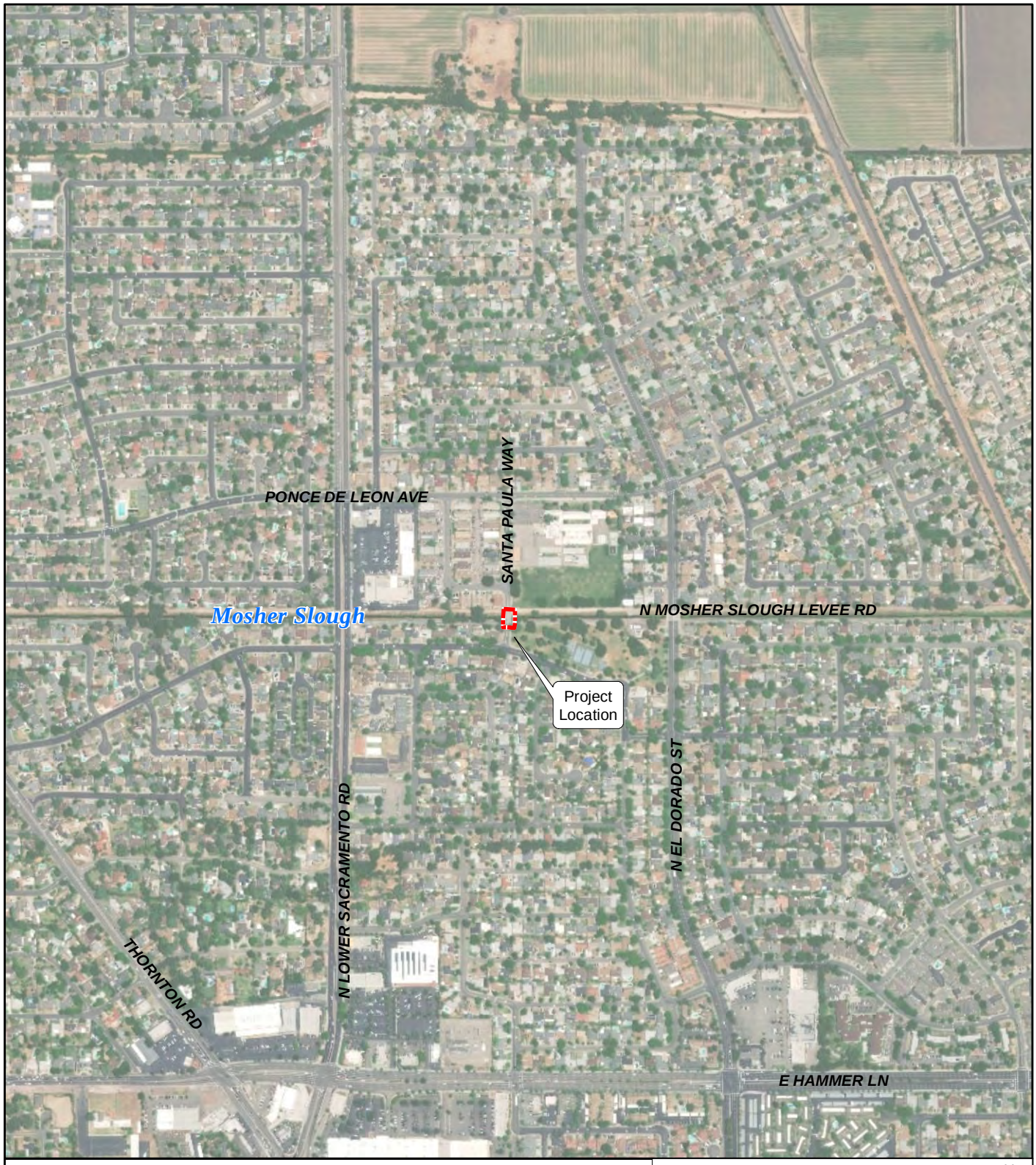
N

Biological Study Area (BSA)

Figure 2. Aerial Photograph
Sheet 4 of 6

Aerial Photograph: 26 August 2016
UC-G Imagery, US-CA-Sacramento, Microsoft
ESRI ArcGIS Basemap Layer

16097StocktonBridgeRehabBPMP_Aurora_Fig2AerialPhoto.mxd



Stockton BPMP 5008(157)
Bridge Rehabilitation Project
Santa Paula Way over Mosher Slough (29C0240)
San Joaquin County, CA
12 February 2019

800 400 0 800 Feet

N

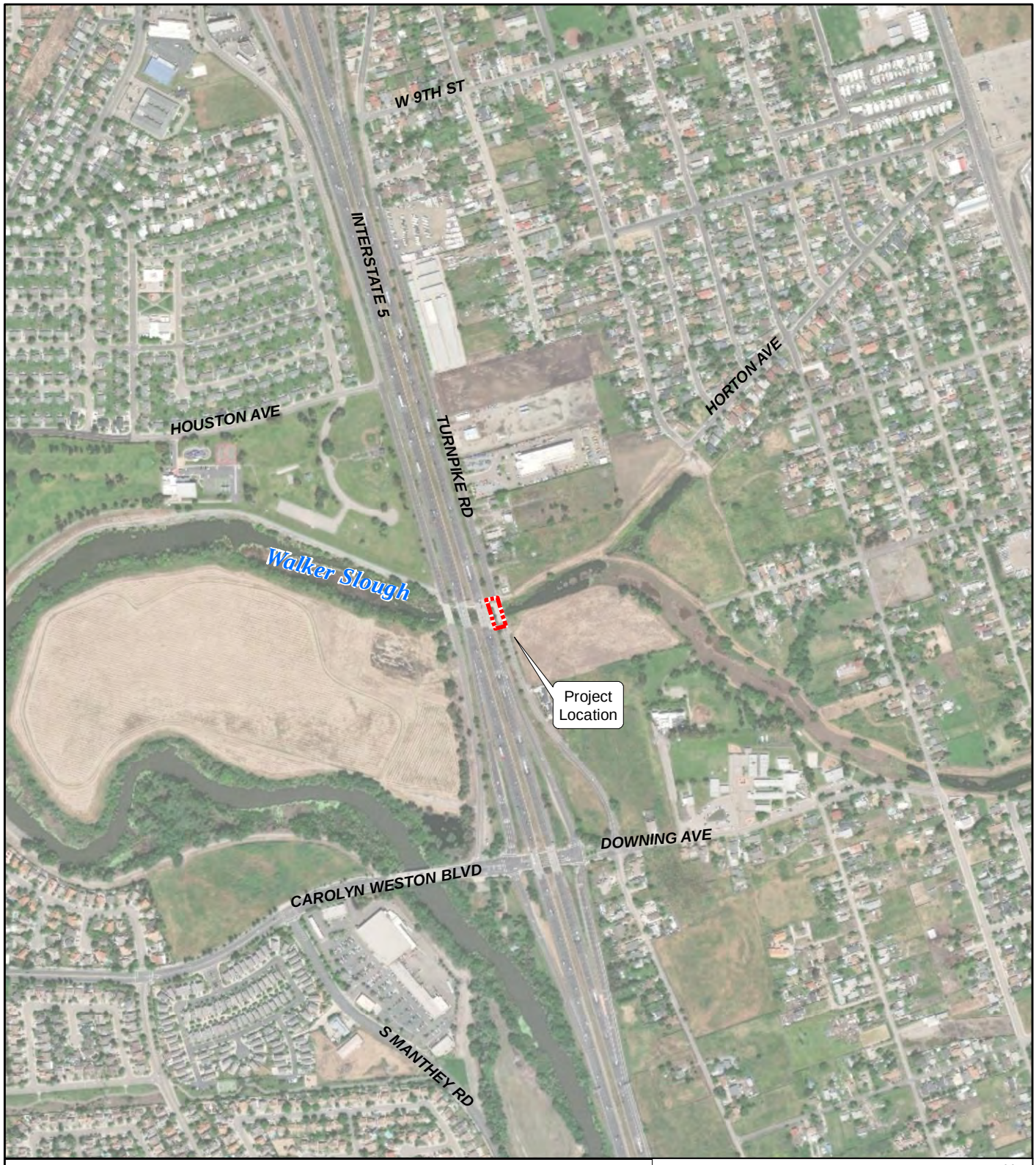
Scale: 1 inch = 800 feet

Biological Study Area (BSA)

Figure 2. Aerial Photograph
Sheet 5 of 6

Aerial Photograph: 3 July 2017
UC-G Imagery, US-CA-Sacramento, Microsoft
ESRI ArcGIS Basemap Layer

16097StocktonBridgeRehabBPMP_SantaPaula_Fig2AerialPhoto.mxd



Stockton BPMP 5008(157)
Bridge Rehabilitation Project
Turnpike Road over Walker Slough (29C0399)
San Joaquin County, CA
12 February 2019

800 400 0 800 Feet

Scale: 1 inch = 800 feet

N

Biological Study Area (BSA)

Figure 2. Aerial Photograph
Sheet 6 of 6

Aerial Photograph: 26 August 2016
UC-G Imagery, US-CA-Sacramento, Microsoft
ESRI ArcGIS Basemap Layer

16097StocktonBridgeRehabBPMP_Turnpike_Fig2AerialPhoto.mxd

3.3 Project Description

Based on the recommendation in the Bridge Maintenance Recommendations Report (MGE 2017) the following bridge preventative maintenance activities are proposed. Figure 3 (Sheets 1-6) shows proposed bridge repairs and the project footprint, including temporary and permanent impacts at each of the six Project sites.

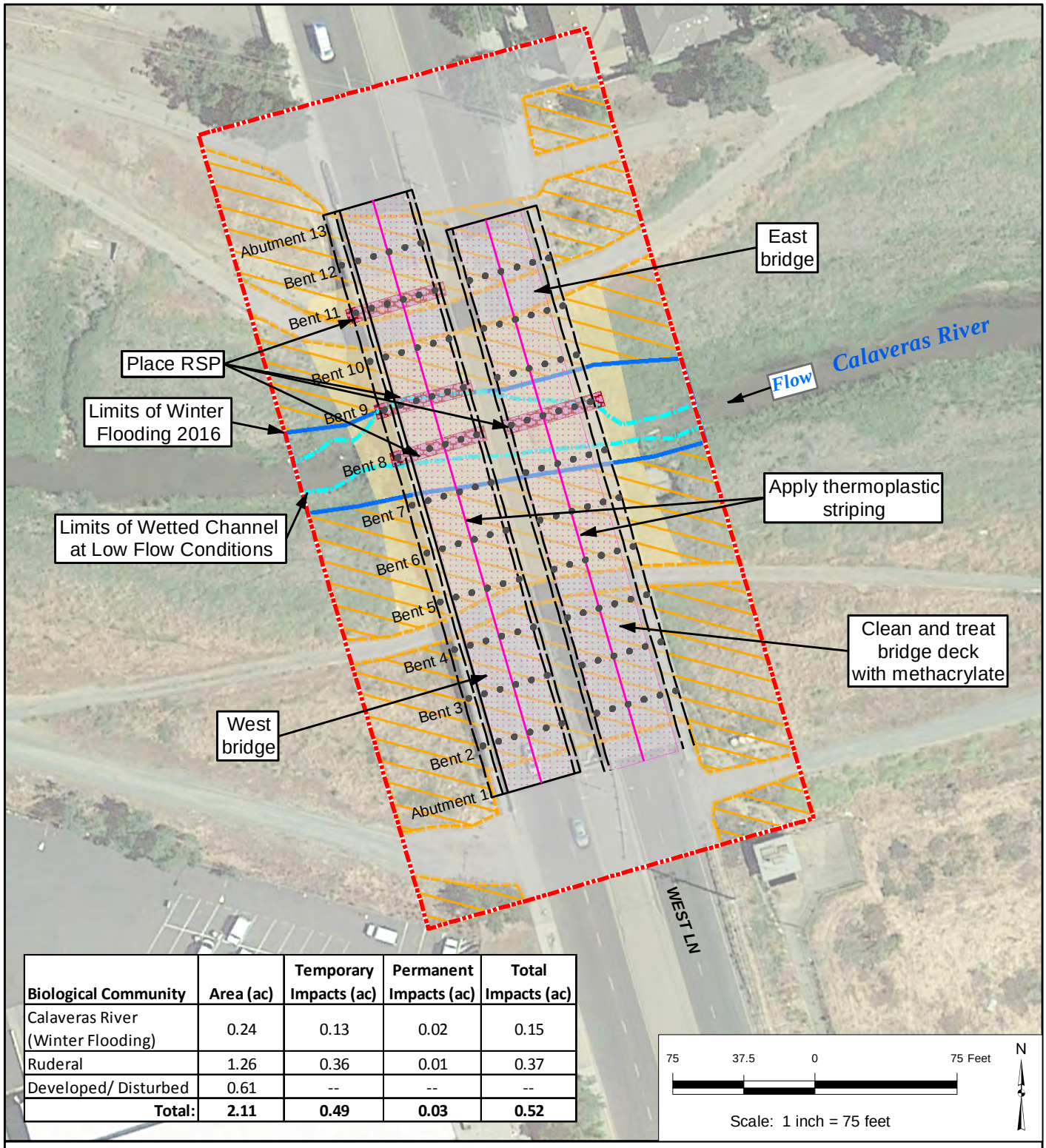
3.3.1 West Lane over Calaveras River (29C0157R/L) Bridge Rehabilitation

The West Lane Bridge consists of two parallel structures that carry opposite directions of traffic. The west bridge carries southbound traffic. The west bridge is a continuous 12-span reinforced concrete slab supported on concrete pile extension bents and diaphragm type abutments supported on concrete piles. The east bridge carries northbound traffic. The east bridge is a continuous 11-span reinforced concrete slab supported on concrete pile extension bent and diaphragm type abutments supported on concrete piles. Both bridges were constructed in 1966.

Deficiencies in the west bridge include deck cracking throughout the bridge deck, sidewalk spalling near both abutments on the west side, and pile shell exposure at Bents 8, 9, and 11. The City proposes to clean and treat the bridge deck with methacrylate, repair sidewalk spalling, and install scour countermeasures at Bents 8, 9, and 11. The installation of scour protection will require excavations of up to 3.5 feet below grade. RSP will be placed to fill the excavation. The scour protection will reestablish the existing grade of the channel. The scour protection will not change the channel hydraulic capacity.

Deficiencies in the east bridge include deck cracking throughout the bridge deck, minor erosion at Abutment 12, pile shell exposure at Bent 8, and minor pile shell exposure at Bents 10 and 11. The City proposes to treat the bridge deck with methacrylate and construct scour countermeasures at Bent 8. The installation of scour protection will require excavations of up to 3.5 feet below grade. RSP will be placed to fill the excavation. The scour protection will reestablish the existing grade of the channel. The scour protection will not change the channel hydraulic capacity. Construction will require temporary traffic closures. Project staging will occur along the road.

Scour countermeasures for both bridges include placing RSP at the base of the columns. The RSP will be approximately 3.5 feet deep and extend approximately 3 feet beyond the edge of each column, and 5 feet beyond the outermost columns. Bents 8 and 9 are located in the high flow channel of the Calaveras River (see Figure 3; Sheet 1). RSP installation at Bents 8 and 9 may require construction equipment to access the Calaveras River bed and may require partial diversion of the river. The diversion would allow flows to pass through the existing channel under the bridge. Diversion methods may include the use of water pillows, rock, sandbags, pipes or coffer dams, or other structural methods approved by the Project Engineer and CDFW.



Biological Community	Area (ac)	Temporary Impacts (ac)	Permanent Impacts (ac)	Total Impacts (ac)
Calaveras River (Winter Flooding)	0.24	0.13	0.02	0.15
Ruderal	1.26	0.36	0.01	0.37
Developed/ Disturbed	0.61	--	--	--
Total:	**2.11**	**0.49**	**0.03**	**0.52**

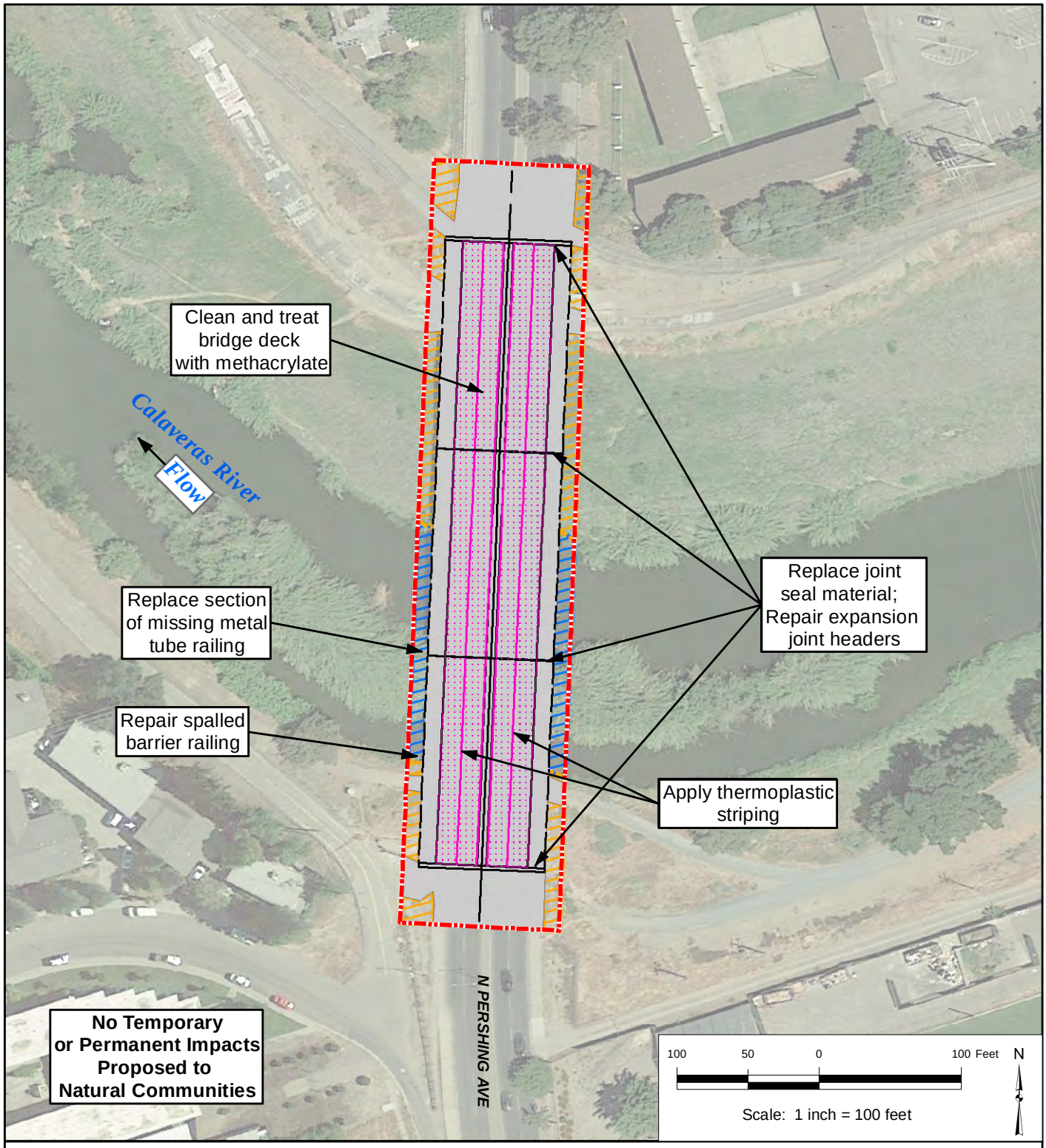
Stockton BPMP 5008(157)
Bridge Rehabilitation Project
West Lane over
Calaveras River (29C0157R/L)
San Joaquin County, CA
12 February 2019

Figure 3. Project Map
Sheet 1 of 6

- Biological Study Area (BSA)
- Existing Road
- Existing Railing
- Apply Thermoplastic Striping
- Proposed methacrylate treatment limits
- Proposed RSP
- Permanent Impact
- Temporary Impact
- Disturbed/ Developed
- Calaveras River (Low Flow Conditions)
- Calaveras River (Winter Flooding 2016)
- Ruderal

Aerial Photograph: 14 March 2016
UC-G Imagery, US-CA-Sacramento, Microsoft
ESRI ArcGIS Basemap Layer

16097StocktonBridgeRehabBPMP_WestLane_Fig3ProjectMap_BA.mxd



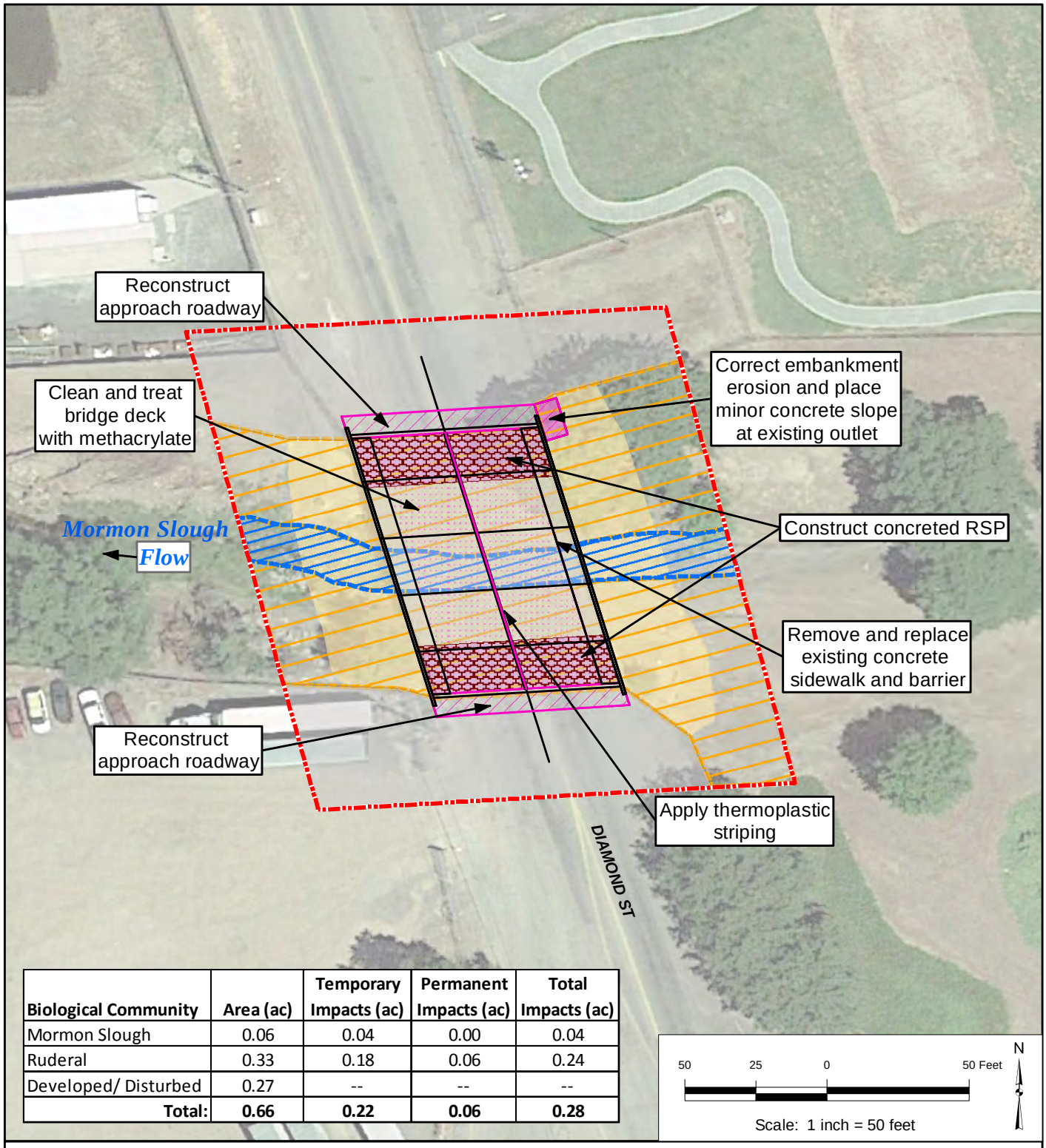
Stockton BPMP 5008(157)
Bridge Rehabilitation Project
Pershing Avenue over
Calaveras River (29C0243)
San Joaquin County, CA
12 February 2019

- Biological Study Area (BSA)
- Proposed Methacrylate Treatment Limits
- Existing Road
- Existing Rails
- Apply Thermoplastic Striping
- Calaveras River
- Disturbed/ Developed
- Ruderal

Figure 3. Project Map
Sheet 2 of 6

Aerial Photograph: 17 May 2017
UC-G Imagery, US-CA-Sacramento, Microsoft
ESRI ArcGIS Basemap Layer

16097StocktonBridgeRehabBPMP_Pershing_Fig3ProjectMap.mxd



Biological Community	Area (ac)	Temporary Impacts (ac)	Permanent Impacts (ac)	Total Impacts (ac)
Mormon Slough	0.06	0.04	0.00	0.04
Ruderal	0.33	0.18	0.06	0.24
Developed/ Disturbed	0.27	--	--	--
Total:	**0.66**	**0.22**	**0.06**	**0.28**

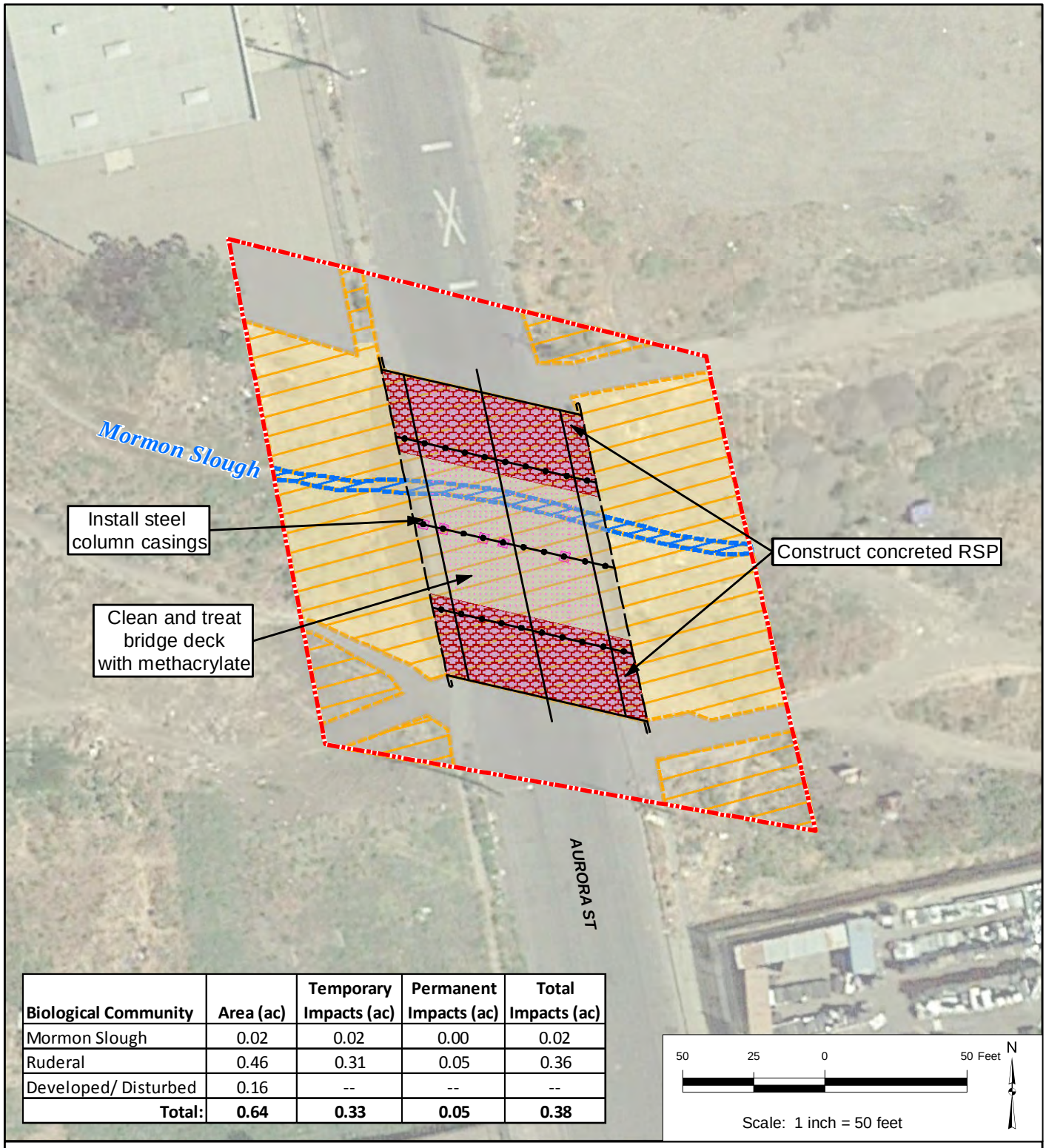
Stockton BPMP 5008(157)
Bridge Rehabilitation Project
Diamond Street over
Mormon Slough (29C0238)
San Joaquin County, CA
12 February 2019

Figure 3. Project Map
Sheet 3 of 6

Biological Study Area (BSA)
Existing Road
Proposed Road Improvements
RSP
Roadway Reconstruction
Methacrylate
Permanent Impacts
Temporary Impacts
Disturbed/ Developed
Mormon Slough
Ruderal

Aerial Photograph: 17 May 2017
UC-G Imagery, US-CA-Sacramento, Microsoft
ESRI ArcGIS Basemap Layer

16097StocktonBridgeRehabBPMP_Diamond_Fig3ProjectMap.mxd



Biological Community	Area (ac)	Temporary Impacts (ac)	Permanent Impacts (ac)	Total Impacts (ac)
Mormon Slough	0.02	0.02	0.00	0.02
Ruderal	0.46	0.31	0.05	0.36
Developed/ Disturbed	0.16	--	--	--
Total:	**0.64**	**0.33**	**0.05**	**0.38**

Stockton BPMP 5008(157)
Bridge Rehabilitation Project
Aurora Street over
Mormon Slough (29C0235)
San Joaquin County, CA
12 February 2019

Figure 3. Project Map
Sheet 4 of 6

- Biological Study Area (BSA)
- Existing Road
- Existing Railing
- Proposed Methacrylate Treatment Limits
- Proposed Concreted RSP
- Excavation for Steel Column Casing
- Disturbed/ Developed
- Mormon Slough
- Ruderal
- Permanent Impacts
- Temporary Impacts

Aerial Photograph: 17 May 2017
UC-G Imagery, US-CA-Sacramento, Microsoft
ESRI ArcGIS Basemap Layer

16097StocktonBridgeRehabBPMP_Aurora_Fig3ProjectMap_v2.mxd

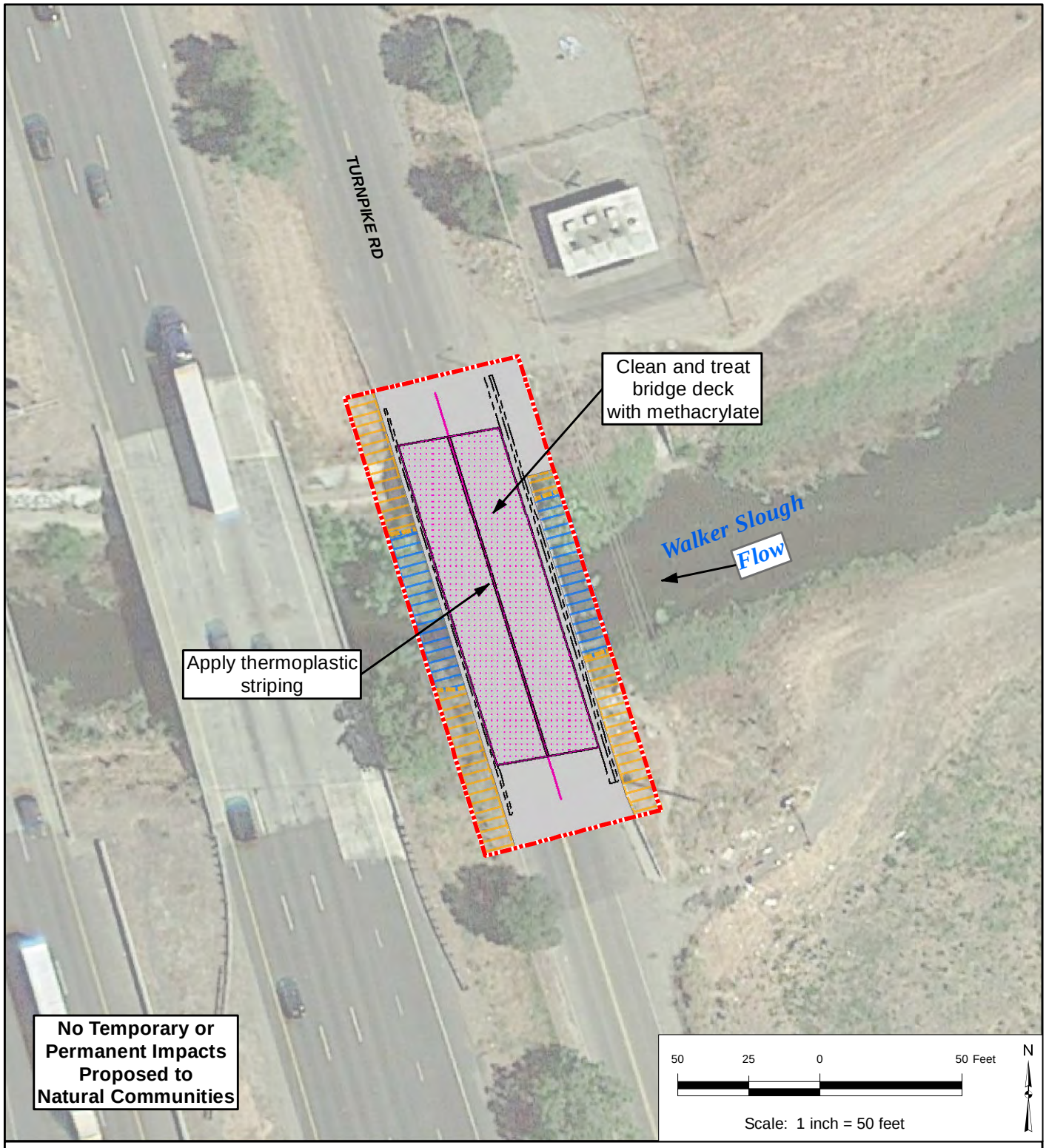
Stockton BPMP 5008(157)
Bridge Rehabilitation Project
Santa Paula Way over
Mosher Slough (29C0240)
San Joaquin County, CA
12 February 2019

Figure 3. Project Map
Sheet 5 of 6

- Biological Study Area (BSA)
- Existing Road
- Existing Railing
- Apply Thermoplastic Striping
- Proposed Methacrylate Treatment Limits
- Disturbed/ Developed
- Mosher Slough
- Ruderal

Aerial Photograph: 17 May 2017
UC-G Imagery, US-CA-Sacramento, Microsoft
ESRI ArcGIS Basemap Layer

16097StocktonBridgeRehabBPMP_SantaPaula_Fig3ProjectMap.mxd



Stockton BPMP 5008(157)
Bridge Rehabilitation Project
Turnpike over
Walker Slough (29C0399)
San Joaquin County, CA
12 February 2019

Figure 3. Project Map
Sheet 6 of 6

- Biological Study Area (BSA)
- Existing Road
- Existing Railings
- Apply Thermoplastic Striping
- Proposed Methacrylate Treatment Limits
- Disturbed/ Developed
- Ruderal
- Walker Slough

Aerial Photograph: 17 May 2017
UC-G Imagery, US-CA-Sacramento, Microsoft
ESRI ArcGIS Basemap Layer

16097StocktonBridgeRehabBPMP_Turnpike_Fig3ProjectMap.mxd

3.3.2 Pershing Avenue over Calaveras River (29C0243) Bridge Rehabilitation

The Pershing Avenue Bridge, constructed in 1959, is an 18-span, continuous reinforced concrete slab supported on concrete pile bents and diaphragm type abutments supported on concrete piles. Bridge deficiencies include: deck cracking throughout the bridge deck, damaged joint seals and headers at Bents 7 and 13 and at Abutments 1 and 19, cracking in Abutment 19 approach slab, spalled barrier railing, sidewalk cracking, incipient spalls at two bent cap locations, and a missing section of bridge railing. The City proposes to treat the bridge deck with methacrylate, replace the seals at Abutments 1 and 19 and Bents 7 and 13, replace missing bridge railing, and repair the spalled barrier railing near Abutment 1. The improvements at this bridge involve above-deck work only. No in-channel work is required for the Pershing Avenue Bridge. Construction will require temporary traffic closures. Project staging will occur along the road.

3.3.3 Diamond Street over Mormon Slough (29C0238) Bridge Rehabilitation

The Diamond Street Bridge, constructed in 1960, is a 5-span reinforced concrete slab superstructure supported on reinforced concrete pile extensions and diaphragm type abutments supported on concrete piles. Bridge deficiencies include: deck and soffit cracking throughout the bridge deck, an area of deck delamination, deteriorated roadway approaches, undermined abutments, embankment erosion at both abutments, sidewalk cracking, and barrier railing deterioration. The City proposes to treat the bridge deck with methacrylate, repair deck delamination, reconstruct the roadway approaches, install concreted RSP at both abutments, abutment erosion countermeasures, and replace the existing concrete sidewalk and barrier railings. Minor excavation (≤ 2 feet) will be required to remove undermined asphalt and correct embankment erosion. Installation of concreted RSP at the abutment embankments will require approximately 2 feet of excavation, and up to 6 feet of excavation at Bent 2 and 5. RSP will be placed to fill the excavation. The scour protection will reestablish the existing grade of the channel. The scour protection will not change the channel hydraulic capacity. Construction will require temporary traffic closures. Project staging will occur along the road.

The construction of concreted RSP would require work below the OHWM of Mormon Slough for construction access. Mormon Slough, west of the Stockton Diverting Canal, is an intermittent channel that contains little to no water during the dry season. Between the Stockton Diverting Canal and the Port of Stockton Turning Basin, it has a small watershed and only contains water for short durations in response to storm events.

3.3.4 Aurora Street over Mormon Slough (29C0235) Bridge Rehabilitation

The Aurora Street Bridge, constructed in 1957, consists of a 4-span continuous reinforced concrete slab superstructure supported on reinforced concrete pile extensions and diaphragm type abutments supported on concrete piles. Bridge deficiencies include deck cracking throughout the bridge deck, abutment footing exposure, spalling and incipient spalling in the span 4 soffit, spalling at Bent 3 columns, exposed pile shells at Bent 2, and spalled barrier railing. The City proposes to clean and treat the bridge deck with methacrylate, install concreted RSP at both abutments, and repair spalled areas at the Bent 3 columns. The installation of steel column casings may require excavations of up to 3 feet below grade. Minor excavation will be required to remove loose concrete and install concreted RSP at abutment embankments

(approximately 2 feet, and up to 6 feet at Bent 2 and 4). RSP will be placed to fill the excavation. The scour protection will reestablish the existing grade of the channel. The scour protection will not change the channel hydraulic capacity. Construction will require temporary traffic closures. Project staging will occur along the road.

3.3.5 Santa Paula Way over Mosher Slough (29C0240) Bridge Rehabilitation

The Santa Paula Way Bridge, constructed in 1972, consists of a 2-span reinforced concrete slab supported on reinforced concrete pile extensions and diaphragm abutments supported on concrete piles. Bridge deficiencies are limited to cracking throughout the bridge deck. The City proposes to clean and treat the bridge deck with methacrylate. The improvements at this bridge involve above-deck work only. No in-channel work is required for the Santa Paula Way Bridge. Construction will require temporary traffic closures. Project staging will occur along the road.

3.3.6 Turnpike Road over Walker Slough (29C0399) Bridge Rehabilitation

This Turnpike Road Bridge, constructed in 1971, is a 5-span, continuous reinforced concrete slab superstructure supported on concrete pile extensions and diaphragm abutments supported on timber piles. Bridge deficiencies are limited to cracking throughout the bridge deck. The City proposes to clean treat the bridge deck with methacrylate. The improvements at this bridge involve above-deck work only. No in-channel work is required for the Turnpike Road Bridge. Construction will require temporary traffic closures. Project staging will occur along the road.

3.4 General Construction Details

Construction best management practices (BMPs) consistent with the City's 'Stormwater Program Best Management Practices for all Construction Sites and or Caltrans Stormwater Quality Handbooks will be implemented during construction to prevent concrete or other materials from entering channels in the Project area. General construction equipment expected to be used includes, but is not limited to: haul trucks, excavators, gradalls, backhoes, dump delivery trucks, concrete boom pump, and service vehicles.

3.5 Project Schedule

The Project is anticipated to take one construction season to complete. Work is anticipated to begin in 2020 or later. At bridges crossing Mormon Slough, in-water construction activities will be restricted to the period between 15 April and the first qualifying rain event on or after 15 October (more than one half inch of precipitation in a 24-hour period), subject to the Streambed Alteration Agreement and consultation with NMFS and USFWS, unless CDFW, NMFS, and/or USFWS provide approval of work outside that period. In-water work may be restricted further to work windows determined by the Central Valley Flood Protection Board (CVFPB). At West Lane bridge over the Calaveras River, in-water construction activities will be restricted to the period between 1 June and the first qualifying rain event on or after 30 September to avoid take of outmigrating juvenile California Central Valley (CCV) steelhead.

3.6 Construction Contract

The City would retain a construction contractor to construct the proposed improvements. The contractor would be responsible for compliance with all applicable rules, regulations, and ordinances associated with proposed Project activities and for implementing construction-related mitigation measures. The City would provide the construction contractor oversight and management and would be responsible for

verifying the implementation of the mitigation measures. The contractor would construct the proposed Project in accordance with the Public Contract Code of the State of California, Project Plans, and any Special Provisions under development by the City. The following are a combination of standard and project-specific procedures/requirements applicable to Project construction:

- Contract provisions will require notification of the City and compliance with California Health and Safety Code Section 7050.5 and California Public Resources Code Sections 5097.5, 5097.9 et seq., regarding the discovery and disturbance of cultural materials or human remains should any be discovered during project construction;
- Contract provisions will require implementation of best management practices (BMPs) consistent with the City's *Storm Water Management Plan* (City of Stockton 2009), the City's '*Stormwater Program Best Management Practices for all Construction Sites* and or Caltrans *Stormwater Quality Handbooks* to protect water quality and minimize the potential for siltation and downstream sedimentation.
- The City or its construction contractors will conduct early coordination with utility service providers, law enforcement and emergency service providers to ensure minimal disruption to service during construction;

4. Initial Study Findings (Determination)

4.1 Environmental Factors Potentially Affected

This Initial Study has determined that in the absence of mitigation the proposed Project could have the potential to result in significant impacts associated with the factors checked below. Mitigation measures are identified in this Initial Study that would reduce all potentially significant impacts to less-than-significant levels.

___	Aesthetics	___	Mineral Resources
___	Agricultural Resources	___	Noise
___	Air Quality	___	Population and Housing
✓	Biological Resources	___	Public Services
✓	Cultural Resources	___	Recreation
___	Geology and Soils	✓	Transportation/Traffic
___	Greenhouse Gas Emissions	___	Utilities and Service Systems
✓	Hazards and Hazardous Materials	✓	Mandatory Findings of Significance
___	Hydrology and Water Quality	___	None Identified
___	Land Use and Planning		

On the basis of 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 the project-specific mitigation measures described in Section III have been added to the project. 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 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 Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature: _____ **Date:** 2/3/2020

Name and Title: Awais Mohammad, Associate Engineer

5. Initial Study Checklist and Supporting Documentation

5.1 Initial Study Checklist

This section of the Initial Study incorporates the Environmental Checklist contained in Appendix G of the CEQA Guidelines. Each resource topic section provides a determination of potential impact and an explanation for the checklist impact questions. The following 19 environmental categories are addressed in this section:

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

Each of the above listed environmental categories was fully evaluated and one of the following four determinations was made for each checklist question:

- **"No Impact"** means that no impact to the environment would occur as a result of implementing the Project.
- **"Less than Significant Impact"** means that implementation of the Project would not result in a substantial and/or adverse change to the environment and no mitigation is required.
- **"Potentially Significant Unless Mitigation is Incorporated"** means that the incorporation of one or more mitigation measures would reduce the impact from potentially significant to less than significant.
- **"Potentially Significant Impact"** means that there is either substantial evidence that a project-related effect would be significant or, due to a lack of existing information, could have the potential to be significant.

5.2 Setting, Impacts, and Mitigation Measures

5.2.1 Aesthetics

I. AESTHETICS—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

Environmental Setting

The City of Stockton is characterized by a mixture of residential, commercial, industrial, and civic land uses. Areas within the current city limit are characterized by distinct residential neighborhoods, neighborhood commercial and regional shopping centers, various types of office uses, a mix of heavy and light industrial uses, and a wide range of public and institutional buildings and facilities. The periphery of the city is largely characterized by agricultural and rural areas. Notable visual features in Stockton include the Port of Stockton and Stockton Deep Water Ship Channel, County Fairgrounds, Stockton Metropolitan Airport, University of the Pacific, Weber Points Events Center, and Magnolia Historic District. The existing General Plan does not designate any scenic vistas. However, the General Plan identifies open space, agricultural fields, and riparian areas, particularly along the San Joaquin River and the Calaveras River, as significant visual features (City of Stockton 2018a).

Potential Environmental Effects

a) ***Less Than Significant Impact.*** A scenic vista refers to the view of an area that is visually or aesthetically pleasing. Aesthetic components of a scenic vista include; 1) scenic quality, 2) sensitivity level, and 3) view access. No scenic vistas have been identified in the Project area, based on a review of the City of Stockton General Plan (City of Stockton 2018a). The General Plan does state that the Calaveras River is a significant visual feature.

The Project includes conducting routine maintenance activities at six bridge sites in an urban setting with adjacent residential, commercial, and industrial land uses. The Pershing Avenue and West Lane sites cross the Calaveras River. No native tree removal is proposed at any of the six sites. Project activities will not affect any scenic vistas.

b) ***No Impact.*** The Project is not located on a state scenic highway (Caltrans 2019).

c) ***Less Than Significant Impact.*** See discussion of a) and b) above.

d) ***No Impact***. The proposed Project does not include any new lighting.

5.2.2 Agricultural and Forestry Resources

II. AGRICULTURE AND FORESTRY—In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project::	*Potentially Significant Impact*	*Potentially Significant Unless 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?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Environmental Setting

The Project area includes six locations within urban areas. The California Farmland Mapping and Monitoring Program map for San Joaquin County shows that five of the six sites are classified as 'Urban and Built Up Land'. The Turnpike Road site is classified as vacant or disturbed land (California Department of Conservation 2019b). No Prime Farmland, Unique Farmland, or Farmland of Statewide Importance occur in the project area. The California Department of Conservation, San Joaquin County Williamson Act FY 2012/2013 map indicates that no lands under Williamson Act contract occur in or adjacent to the Project area.

Potential Environmental Effects

a) ***No Impact.*** No Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or lands under Williamson Act contracts occur in the project area. The Project would not result in the conversion of agricultural land.

b) ***No Impact.*** See response for item a).

c) ***No Impact.*** The proposed Project occurs in City street rights-of-way (ROW) and is consistent with the existing zoning and does not include any rezoning activities.

d) ***No Impact.*** The proposed Project will not result in a permanent loss of forest land or conversion of forest land as none occurs in the Project area.

e) ***No Impact.*** The Project will not convert farmland or timberland as neither occurs in the Project area.

5.2.3 Air Quality

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*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	☒
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

Environmental Setting

The project is located within San Joaquin County in the San Joaquin Valley Air Basin (SJVAB). The Project is under jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD) at the local level, the California Air Resources Board (ARB) at the state level, and the U.S. Environmental Protection Agency (EPA) at the federal level.

The SJVAB is approximately 250 miles long and an average of 35 miles wide. It is bordered by the Sierra Nevada in the east, the Coast Ranges in the west, and the Tehachapi mountains in the south. There is a slight downward elevation gradient from Bakersfield in the southeast end to sea level at the northwest end where the valley opens to the San Francisco Bay at the Carquinez Straits. At its northern end is the Sacramento Valley, which comprises the northern half of California's Central Valley. The bowl-shaped topography inhibits movement of pollutants out of the valley.

The air quality of a region is determined by the air pollutant emissions (quantities and type of pollutants measured by weight) and by ambient air quality (the concentration of pollutants within a specified volume of air). Air pollutants are characterized as primary and secondary pollutants. Primary pollutants are those emitted directly into the air, for example carbon monoxide (CO), and can be traced to a single pollutant source. Secondary pollutants are those pollutants that form through chemical reactions in the atmosphere, for example reactive organic gasses (ROG) and nitrogen oxides (NO_X) combine to form ground level ozone, or smog.

The U.S. Congress established much of the basic structure of the Clean Air Act in 1970, and made major revisions in 1977 and 1990. The Federal Clean Air Act established national ambient air quality standards (NAAQS). These standards are divided into primary and secondary standards. Primary standards are designed to protect public health and secondary standards are designed to protect other values. Because of the health-based criteria identified in setting the NAAQS, the air pollutants are termed "criteria" pollutants. California has adopted its own, more stringent, ambient air quality standards (CAAQS). Table 2 lists the SJVAPCD attainment status for state and federal criteria pollutants.

Table 2. Attainment Status for SJVAPCD in San Joaquin County

Pollutant	**State Designation**	**National Designation**
Ozone	Nonattainment	Nonattainment (8 hr.)
PM_{10}	Nonattainment	Attainment
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Unclassified/ Attainment
NO_2	Attainment	Unclassified/ Attainment
SO_2	Attainment	Unclassified/ Attainment
Sulfates	Attainment	NA
Lead	Attainment	Unclassified/ Attainment
Hydrogen Sulfide	Unclassified	NA
Visibility Reducing Particles	Unclassified	NA

San Joaquin County is currently in nonattainment status for the 8-hour ozone and PM2.5 NAAQS. The County is in nonattainment status for the ozone, PM10, and PM2.5 CAAQS.

The SJVAPCD administers the state and federal Clean Air Acts in accordance with state and federal guidelines. The SJVAPCD regulates air quality through its district rules and permit authority. It also participates in planning review of discretionary project applications and provides recommendations. The following District rules may apply to the Project:

- ***Rule 4101 (Visible Emissions):*** This rule prohibits emissions of visible air contaminants to the atmosphere and applies to any source operation that emits or may emit air contaminants.
- ***Rule 4601 (Architectural Coatings):*** This rule sets limits on the volatile organic compounds, a component of ROG, allowed in various paints and other coatings.
- ***Rules 8011-8081 (Regulation VIII (Fugitive Dust PM_{10} Prohibitions)):*** These rules are designed to reduce PM_{10} emissions (predominantly dust/dirt) generated by human activity,

including construction and demolition activities, road construction, bulk materials storage, paved and unpaved roads, carryout and track out, landfill operations, etc.

- ***Rule 4102 (Nuisance):*** Prohibits the discharge of air containments which cause injury, detriment, nuisance, or annoyance.

- ***Rule 4201 (Particulate Matter):*** A person shall not release or discharge into the atmosphere from any source or single processing unit, exclusive of sources emitting combustion contaminants only, particulate matter emissions in excess of 0.1 grains per cubic foot of dry exhaust gas at standard conditions.

- ***Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations):*** This rule limits VOC emissions by restricting the application and manufacturing of certain types of asphalt for paving and maintenance operations.

- ***Rule 9510 (Indirect Source Rule):*** Rule 9510 is intended to reduce or mitigate construction and operational emissions of NOx and PM10 generated by new development. This rule requires specific percentage reductions in estimated on-site construction and operation emissions, and/or payment of off-site mitigation fees for required reductions that cannot be met on the project site. Construction emissions of NOx and PM10 exhaust must be reduced by 20% and 45%, respectively. Operational emissions of NOx and PM10 must be reduced by 33.3% and 50%, respectively. In addition to other project types Rule 9510 applies to transportation or transit development project where construction exhaust emissions equal or exceed two (2.0) tons of NOx or two (2.0) tons of PM10.

The SJVAPCD considers a significant cumulative impact to occur if the project requires a change in the existing land use designation (i.e., general plan) and would individually exceed the project-level thresholds of significance. Thresholds of significance for specific pollutants of concern are listed in Table 3.

Construction emissions were estimated for the Project using the Sacramento Metropolitan Air Quality Management District's *Road Construction Emissions Model (*RCEM*), Version 9.0.0*. The RCEM was developed to estimate emissions from linear projects types including road and bridge construction. The RCEM divides the project into four 'Construction Periods:

- Grubbing/ Land Clearing
- Grading/Excavation
- Drainage/Utilities/Sub-Grade
- Paving (***Note:*** *For this Project the 'Paving' phase is primarily the period where methacrylate will be applied to the bridges decks*)

Table 3. SJVAPCD CEQA Thresholds of Significance

Pollutant/Precursor	**Construction Emissions**	**Operational Emissions**	
		Permitted Equipment and Activities	**Non-Permitted Equipment and Activities**
	***Emissions (tpy)*[1]**	***Emissions (tpy)***	***Emissions (tpy)***
CO	100	100	100
NOx	10	10	10
ROG	10	10	10
SO_x	27	27	27
PM_{10}	15	15	15
$PM_{2.5}$	15	15	15

[1] tpy = tons per year

Based on similar road and bridge projects, the assumptions presented in Table 4 regarding type of construction equipment and use duration were used in the RCEM. Other Project assumptions used in the RCEM include a total six-month construction schedule starting in 2020, use of water trucks, and all equipment was assumed to run for eight hours per day. Results of the RCEM based on the Project assumptions are in Table 5.

Table 4. Construction Equipment and Use Assumptions

Construction Period	**Equipment**	
	Quantity	**Type**
Grubbing/ Land Clearing	1 1	Excavator Signal Board
Grading/Excavation	1 1 1 1	Excavator Rubber Tired Loader Signal Board Backhoe
Drainage/Utilities/Sub-Grade	1 1	Signal Board Backhoe
Paving	1 1	Signal Board Paving Equipment Backhoe

Table 5. Estimated Construction Emissions

Project Phases	ROG lbs/day	CO lbs/day	NOx lbs/day	PM10 Total lbs/day	Exhaust PM10 lbs/day	Fugitive Dust PM10 lbs/day	PM2.5 Total lbs/day	Exhaust PM2.5 lbs/day	Fugitive Dust PM2.5 lbs/day
Grubbing/land clearing	0.34	4.21	3.13	5.16	0.16	5.0	1.17	0.13	1.04
Grading/excavation	1.10	10.92	9.91	5.54	0.54	5.0	1.47	0.43	1.04
Drainage/utilities/sub-grade	1.30	13.45	10.68	5.66	0.66	5.0	1.63	0.59	1.04
Paving	0.54	6.15	5.21	0.30	0.30	0.0	0.26	0.25	0.00
Maximum lbs/day	1.30	13.45	10.68	5.66	0.66	5.0	1.63	0.59	1.04
Tons per year for Project	0.07	0.69	0.58	0.31	0.03	0.28	0.09	0.03	0.06
Construction and Operational Significance Thresholds (tons per year, tpy)	10	100	10	15	--	--	15	--	--
Significant?	**No**	**No**	**No**	**No**	***N/A***	***N/A***	**No**	***N/A***	***N/A***

Notes: Data entered to emissions model: Project Start Year: 2020; Project Length (months): 6; Total Project Area (acres): 5.17; Total Soil Imported/Exported (yd^3/day): 0. PM10 estimates assume 50% control of fugitive dust from watering and associated dust control measures. Total PM10 emissions are the sum of *exhaust* and *fugitive dust* emissions.

Potential Environmental Effects

a) ***No Impact.*** A project is inconsistent with the applicable air quality plan if it would result in population and/or employment growth that exceeds growth estimated in the applicable air quality plan. The proposed Project does not include development of new housing or employment centers, and would not induce population or employment growth. Therefore, the proposed project would not conflict with or obstruct the implementation of any air quality plan.

b) ***Less Than Significant Impact.*** San Joaquin County is currently in nonattainment status for the 8-hour ozone and PM2.5 NAAQS. The County is in nonattainment status for the ozone, PM10, and PM2.5 CAAQS. The RCEM estimates are below the SJVAPCD CEQA significance thresholds for all criteria pollutants. The Project would not generate additional traffic on any of the roadways included in the Project. No increase in operational emissions will result from the Project. The Project is not subject to Rule 9510 since the modeled Project NOx and PM10 emissions do not exceed the rules 2.0 ton construction exhaust emission applicability threshold.

c) ***No Impact.*** Construction-related emissions from the proposed project would not exceed the SJVAPCD significance thresholds. As discussed under item b above, the Project will not result in an increase of operational emissions. Further, the proposed Project would not conflict with the applicable air quality plans, which addresses the cumulative emissions in the SJVAB. The proposed Project would not result in a cumulatively considerable increase in emissions of nonattainment pollutants.

d) ***Less Than Significant Impact.*** Sensitive individuals refer to those segments of the population most susceptible to poor air quality (i.e., children, the elderly, and those with pre-existing serious health problems affected by air quality). Sensitive land uses occur where sensitive individuals are most likely to spend time (e.g. schools and schoolyards, parks and playgrounds, day care centers, nursing homes, hospitals, and residential communities). Adjacent receptors have the potential to be exposed to PM10, PM2.5, CO, ROG, and NOx during construction. These impacts are considered less than significant due to the limited nature of the Project and the short-term construction period.

The Project is not located within an area known to contain naturally occurring asbestos (NOA) or an area "more likely to contain naturally occurring asbestos" (California Department of Conservation 2000).

e) ***Less Than Significant Impact.*** Construction activities would involve the use of construction equipment, which have distinctive odors. Odors from construction activities are considered less than significant because of the limited number of the public affected and the short-term nature of the emissions. The proposed Project would not result in increased production of odors causing compounds. These impacts are considered less than significant.

5.2.4 Biological Resources

IV. BIOLOGICAL RESOURCES—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless 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?				
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☒	☐
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?	☐	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☒	☐

Environmental Setting

Potential impacts to biological and wetlands resources were evaluated in the Project's Natural Environment Study (NES; Sycamore Environmental 2019a), Biological Assessment (BA; Sycamore Environmental 2019b), and BA Technical Memorandum (Sycamore Environmental 2019c). The documents conclude the following regarding biological resources:

- Suitable habitat for federal-listed American green sturgeon southern Distinct Population Segment (DPS; *Acipenser medirostris*), and California Central Valley steelhead (*Oncorhynchus mykiss*) is present at the two bridge sites located over the Calaveras River (West Lane and Pershing Avenue) and Mormon Slough (Diamond Street and Aurora Street). The Project may affect, but is not likely to adversely affect, green sturgeon, California Central Valley steelhead, and critical habitat for these species.
- The Project is located in Essential Fish Habitat (EFH) designated for Chinook salmon (NMFS 2008). With implementation of measures below, the Project will not adversely modify EFH for Chinook salmon.
- Depending on the site conditions at each bridge, suitable habitat for several state special-status species, including birds of prey and migratory birds, Sacramento splittail (*Pogonichthys macrolepidotus*), western pond turtle (*Emys marmorata*), burrowing owl (*Athene cunicularia*), Swainson's hawk (*Buteo swainsoni*), loggerhead shrike (*Lanius ludovicianus*), and Modesto song sparrow (*Melospiza melodia*) may be present. With implementation of the avoidance and minimization measures discussed below, the proposed Project will not affect these species.
- The Project area does not provide habitat for federal-listed plants.

- The Pershing Avenue, West Lane, and Turnpike Road bridge sites in the Project area provide habitat for state-rare Mason's lilaeopsis (*Lilaeopsis masonii*) and several rare plants ranked by the California Native Plant Society (CNPS), including heartscale (*Atriplex cordulata*), watershield (*Brasenia schreberi*), bristly sedge (*Carex comosa*), Bolander's water-hemlock (*Cicuta maculata* var. *bolanderi*), slough thistle (*Cirsium crassicaule*), San Joaquin spearscale (*Extriplex joaquinana*), woolly rose-mallow (*Hibiscus lasiocarpos* var. *occidentalis*), Delta tule pea (*Lathyrus jepsonii* var. *jepsonii*), Delta mudwort (*Limosella australis)*, Sanford's arrowhead (*Sagittaria sanfordii*), side-flowering skullcap (*Scutellaria lateriflora*), Suisun marsh aster (*Symphyotrichum lentum*), Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*), and saline clover (*Trifolium hydrophilum*). The Diamond Street, Aurora Street, and Santa Paula Way locations do not provide habitat for special-status plant species.
- Three of the six bridges require in-channel work; the maintenance work for the other three bridges will not occur in the channels. Permits and authorizations required for Project construction at the West Lane bridges include a Section 404 Nationwide Permit authorization (NWP #3 for Maintenance Projects, NWP #14 for Linear Transportation, or NWP #23 for Approved Categorical Exclusions) from the U.S. Army Corps of Engineers (Corps), a Section 401 Water Quality Certification (WQC) from the Regional Water Quality Control Board (RWQCB), and a 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife (CDFW). A Central Valley Flood Protection Board (CVFPB) encroachment permit may also be required. No discharge of fill material is proposed within the OHWM of Mormon Slough. Work within the bed and bank of Mormon Slough requires a 1602 Streambed Alteration Agreement from CDFW.
- California Central Valley steelhead are not expected to occur in the Diamond Street or Aurora Street Action Areas between July and October, when Mormon Slough is dry. In extremely wet years, Mormon Slough may hold water at the Diamond Street and Aurora Street bridges during the California Central Valley steelhead adult upstream migration season between late September and February or March.

On October 25 2019 National Marin Fisheries Service concurred that the Project is not likely to adversely affect green sturgeon or California Central Valley steelhead and that with the implantation of conservation measures will not adversely modify Essential Fish Habitat (EFH) designated for Chinook salmon.

Natural communities present in the Project area and potential project impacts are shown in Table 6 (Sycamore Environmental 2019a). Special-status natural communities evaluated in the Project NES include waters of the U.S., Mormon Slough, Mosher Slough, Walker Slough, and the Calaveras River.

Table 6. Project Impacts to Biological Communities

Biological Community	Acreage	Temporary Impact (acre)	Permanent Impact (acre)	Total Impact (acre)
Calaveras River	0.66	0.13	0.02	0.15
Mormon Slough	0.08	0.06	0	0.06
Mosher Slough	0.02	0	0	0
Walker Slough	0.08	0	0	0
Other Features				

Ruderal	2.72	0.85	0.12	0.97
Disturbed / Developed[1]	1.61	--	--	--
Total:	**5.17**	**1.04**	**0.14**	**1.18**

[1] Developed area, no impacts are calculated.

Potential Environmental Effects

a) ***Potentially Significant Unless Mitigation Incorporated.***

Special-Status Plant Species: The Pershing Avenue, West Lane, and Turnpike Road bridge sites in the Project area provide habitat for one state-rare species (Mason's lilaeopsis) and several rare plants ranked by the California Native Plant Society (CNPS) including heartscale, watershield, bristly sedge, Bolander's water-hemlock, slough thistle, San Joaquin spearscale, woolly rose-mallow, Delta tule pea, Delta mudwort, Sanford's arrowhead, side-flowering skullcap, Suisun marsh aster, Wright's trichocoronis, and saline clover. The Diamond Street, Aurora Street, and Santa Paula Way locations do not provide habitat for special-status plant species.

No special-status plant species were observed in the Project area during the biological survey conducted in mid-September 2017. The 2017 field survey was conducted during the evident and identifiable period for all plants with the potential to occur at the Pershing Avenue, West Lane, and Turnpike Road bridge sites except saline clover, Delta mudwort, and slough thistle. These three species could occur at the Pershing Avenue, West Lane, and Turnpike Road bridge sites.

Saline clover, Delta mudwort, and slough thistle are special status plants with the potential to occur in the Project area. These species are not state of federal listed plants. These species are designated by the California Native Plant Society as list 1B.1, 1B.2 and 2B.1 plants. These species are not subject to the provisions FESA, CESA, or the California Native Plant Protection Act. Transplantation/ propagation of these species does not require any permit action from USFWS or CDFW. The City as the CEQA lead agency must evaluate potential impacts to these species and must mitigate all significant impacts to these species to a level of less than significant.

The Project could impact saline clover, Delta mudwort, and slough thistle if it is present at the Pershing Avenue, West Lane, and Turnpike Road bridge sites. Implementation of the measure BIO-1 will reduce potential impacts to these species.

Mitigation Measure BIO-1 (Saline clover, Delta Mudwort, and Slough Thistle)

- *A focused botanical survey will be conducted for saline clover, Delta mudwort, and slough thistle during the evident and identifiable blooming period at the* ***Pershing Avenue****,* ***West Lane****, and* ***Turnpike Road*** *project sites.*
- *If saline clover, Delta mudwort, or slough thistle are not observed, no further action is needed.*
- *If saline clover, Delta mudwort, or slough thistle are identified, they will be included in an ESA. The ESA non-disturbance buffer will be determined by a qualified botanist. The plant(s) will be clearly delineated using high visibility orange fencing. The ESA fencing will remain in place throughout the duration of the proposed action, while construction activities are ongoing, and will be regularly inspected and fully maintained at all times. The ESA fencing will be installed*

prior to initial clearing of vegetation. Vehicles will not be allowed to park in, nor will equipment be stored in the ESA. No storage of oil, gasoline, or other substances will be permitted in the ESA. No vegetation removal or ground disturbing activities will be permitted in the ESA.

- *If rare plant populations cannot be protected in place, the City will prepare a transplantation/ propagation plan for the relocation of the rare plant(s). Rare plant relocation will occur in a suitable area of the Project area or other suitable location determined by the City. The transplantation/ propagation plan will be sent to CDFW.*

Special-Status Wildlife Species:

Green Sturgeon, Southern DPS (*Acipenser medirostris*), Central Valley (CCV) Steelhead (*Oncorhynchus mykiss*), and Sacramento Splittail (*Pogonichthys macrolepidotus*): The Calaveras River in the Project area does not provide spawning habitat for green sturgeon or CCV steelhead.

Depending on annual and seasonal hydrologic conditions these species could use the Calaveras River below the Pershing Ave. and West Lane bridges for juvenile rearing, foraging, migration, and sheltering habitat.

Mormon Slough is mapped as an intermittent stream on the Stockton West topographic quad. Mormon Slough flows east to west, crossing under the Diamond Street bridge and the Aurora Street bridge. Mormon Slough was diverted when the Stockton Diverting Canal was constructed in 1910 to carry flows around the east side of Stockton and back to the Calaveras River. This diversion occurs 3.1 miles and 4.2 miles upstream of the Diamond Street and Aurora Street bridges, respectively. As a result, Mormon Slough no longer flows below these bridges. The numerous homeless encampments around and under the bridge, together with the spoils piles and abundant trash in and adjacent to the slough is a constant source of disturbance to the slough. The Aurora and Diamond Street bridges are located in the segment of Mormon Slough between South Commerce Street and the Stockton Diverting Canal. The Stockton Diverting Canal directs Mormon Slough to the Calaveras River on the east side of Stockton, which dewaters this segment of Mormon Slough of its natural flows. Mormon Slough between South Commerce Street and the Stockton Diverting Canal, including the Project area, is not fish habitat.

California Central Valley steelhead are not expected to occur in the Diamond Street or Aurora Street Action Areas between July and October, when Mormon Slough is dry. The National Marine Fisheries Service (NMFS) has determined that in extremely wet years, Mormon Slough may hold water at the Diamond Street and Aurora Street bridges during the adult upstream migration season between late September and February or March. If California Central Valley steelhead were present in the Action Area during construction, they could be exposed either directly or indirectly to stressors.

Mosher Slough and Walker Slough in the Project area do not provide habitat for special-status fish species. Mosher and Walker Sloughs contain lethally high-water temperatures during the summer and unsuitable substrate for spawning. There is no upstream spawning habitat for California Central Valley steelhead, therefore these sloughs would not be used as a migratory route.

Work at the Pershing Avenue Bridge involves above deck work only. No temporary or permanent impacts to the Calaveras River at the Pershing Avenue Bridge are anticipated. Work at the Pershing Avenue Bridge site would have no effect on special-status fish species.

At the West Lane Bridges (north- and south-bound), the Project would result in 0.14 acre of temporary impacts and 0.02 acre of permanent impacts to the Calaveras River. Permanent impacts would result from RSP installation below the OHWM of the Calaveras River. RSP installation would require excavations of up to approximately 3.5 feet below grade. The RSP would protect the bents from scour.

Temporary impacts to the Calaveras River would result from water diversion and access during construction. RSP installation at Bents 8 and 9 may require construction equipment to access the Calaveras River bed and may require partial diversion of the river. The diversion would allow flows to pass through the existing channel under the bridge. Any work to occur below the OHWM of the Calaveras River would be limited to the dry season, when river flows are at their lowest and warmest and adult green sturgeon are least likely to occur.

Mormon Slough below the Aurora Street and Diamond Street bridges is designated critical habitat for California Central Valley steelhead. The Stockton Diverting Channel takes flows in Mormon Slough to the Calaveras River upstream of the Aurora and Diamond Street bridges. Therefore, the section of Mormon Slough between South Commerce Street and the Stockton Diverting Channel does not have the necessary physical and biological elements (e.g., water) for it to be critical habitat.

The Project area is located in the San Joaquin Delta Hydrologic Unit (Hydrologic Unit Code 18040003), the Upper Calaveras California Hydrologic Unit (Hydrologic Unit Code 18040011), and the Rock Creek-French Camp Slough Hydrologic Unit (Hydrologic Unit Code 18040051), which are designated as essential fish habitat (EFH) for Chinook salmon. EFH for groundfish is identified on the NMFS Resources in California KMZ for the Lodi South and Stockton West topographic quad. The Project does not occur within EFH designated for groundfish.

Implementation of the of BIO-2 and BIO-5 will reduce potential impacts to less than significant for special-status fish, essential fish habitat, and designated critical habitat.

Mitigation Measure BIO-2 (Listed Fish)

- *A qualified biologist will train project staff on-site regarding habitat sensitivity, identification of listed fish species, and required practices before the start of construction. The training shall include the general measures that are being implemented to conserve listed fish species as they relate to the project, penalties for noncompliance, and boundaries of the construction area. A fact sheet or other supporting materials containing this information will be prepared and distributed. Upon completion of training, employees will sign a form stating that they attended the training and understand all the conservation and protection measures.*
- *To ensure compliance with the Project's avoidance and minimization measures, a City-appointed inspector will be on-site whenever in-water work occurs. The construction inspector will make recommendations to the construction personnel, as needed, to comply with all project implementation restrictions and guidelines. The construction inspector will be responsible for ensuring that the contractor maintains the staked and flagged perimeters of the construction*

area and staging areas adjacent to sensitive biological resources. A qualified biologist will be available during the construction period to assist the construction inspector if any special-status species are found and to answer questions and make recommendations regarding implementation of avoidance and minimization measures.

- *The qualified biologist will be present during installation and removal of the diversion structure and dewatering activities. If listed fish species are observed, in-water work will be halted until they move out of the active work zone. If they remain in the construction zone for an extended period, NMFS or USFWS will be contacted for further guidance.*
- *In-water work will be avoided at night to the maximum extent possible.*
- *The temporary diversion structure will be designed so that fish passage is maintained up and down stream of the Project site. The diversion will not create an impassible barrier. The diversion would allow flows to pass through the existing channel under the bridge while maintaining water quality. An open channel diversion will be used during construction to minimize impacts to listed fish species. The contractor will prepare a creek diversion and dewatering plan that complies with any applicable permit conditions.*
- *If temporary diversion structures are constructed with natural materials (i.e., gravel), the material will be composed of washed, rounded, spawning-sized gravel between 0.4 to 4 inches in diameter. If gravel is left in place after the diversion is removed, it shall be manually spread out using hand tools, if necessary, to ensure adequate fish passage for all life stages.*
- *If pumps are used to temporarily divert a stream to facilitate construction, an acceptable fish screen must be used to prevent entrainment or impingement of small fish. Potential contact between fish and pump will be minimized and/or avoided by constructing an open basin prior to commencing dewatering.*

Western Pond Turtle (WPT; *Emys marmorata*): WPT were not observed in the Project area during the September 2017 general biological fieldwork. The Calaveras River, Walker Slough, and Mosher Slough in the BSA provide potential habitat for WPT at the Pershing Avenue, West Lane, Turnpike Road, and Santa Paula Way bridge sites. Implementation of the BIO-3 will reduce potential impacts to less than significant. Implementation of the BIO-2 and BIO-5 will also reduce potential impacts.

Mitigation Measure BIO-3 (Western Pond Turtle)

- *A qualified biologist shall conduct a preconstruction survey for WPT within 48 hours prior to the onset of vegetation removal or ground disturbance at the **West Lane** bridge site in the Project area.*
- *If WPT are found, construction activities with potential to harm the individual(s) will stop and a qualified biologist will be notified. Construction will resume when the biologist has either relocated the WPT out of the construction zone to nearby suitable habitat, or, after thorough inspection, determined that the WPT has moved away from the construction zone.*

- *Environmental awareness training will be conducted by a qualified biologist prior to the onset of project work for construction personnel to brief them on how to recognize WPT. Construction personnel will be informed that if a WPT is encountered in the work area, construction should stop and a qualified biologist be notified. Education programs will be conducted for appropriate new personnel as they are brought on the job during the construction period. Upon completion of training, employees will sign a form stating that they attended the training and understand all the conservation and protection measures.*

Nesting Birds Listed Under the MBTA or Regulated by CA Fish and Game Code: The Project area provides potential nesting sites for birds listed under the MBTA and regulated by CA Fish and Game Code. Inactive (post-nesting season) swallow nests were observed below the West Lane bridges during the September 2017 site visit. Swallow nests were not observed on the other bridges. Implementation of BIO-4 will reduce potential impacts to less than significant.

Mitigation Measure BIO-4 (MBTA)

Under the MBTA, nests that contain eggs or unfledged young are not to be disturbed during the breeding season. Nesting or attempted nesting by migratory birds and birds-of-prey is anticipated from 1 February to 30 September.

Swallows and Other Bridge Nesters

In California, bridge-nesting swallows typically arrive in mid-February, increase in numbers until late March, and remain until October. Nesting begins in April, peaks in June, and continues into August. Black phoebes, another bridge-nesting species, nest from March to August with peak activity in May. Measures should be taken to prevent establishment of nests on the bridges, culverts, headwalls, and other suitable structures prior to construction. Effective techniques to prevent nest establishment include using exclusion devices and removing and disposing of partially constructed and unoccupied nests of migratory or nongame birds on a regular basis to prevent their occupation. This can be done by:

- *On a weekly or more frequent basis, remove all partially completed nests using either hand tools or high-pressure water; and/or*
- *Hang netting from the bridge before nesting begins. If this technique is used, netting should be in place from late February until project construction begins.*

Birds of Prey and Birds Protected by the Migratory Bird Treaty Act

- *If construction begins outside the 1 February to 30 September breeding season, there will be no need to conduct a preconstruction survey for active nests.*
- *If applicable, trees scheduled for removal should be removed during the non-breeding season from 1 October to 31 January.*
- *If construction is scheduled to begin between 1 February and 30 September, a biologist shall conduct a survey for active bird of prey nests within 500 ft and active MTBA bird nests within 100 ft of the Project area from publicly accessible areas within one week prior to construction. The measures listed below shall be implemented based on the survey results.*

No Active Nests Found:

- *If no active nest of a bird of prey, MBTA bird, or other CDFW protected bird is found, then no further avoidance and minimization measures are necessary.*

Active Nests Found:

- *If an active nest of a bird of prey, MBTA bird, or other CDFW protected bird is discovered that may be adversely affected by construction activities or an injured or killed bird is found, immediately:*
    1. *Stop all work within a 100-ft radius of the discovery*
    2. *Notify the Engineer*
    3. *Do not resume work within the specified radius of the discovery until authorized.*
- *The biologist shall establish a minimum 500-ft Environmentally Sensitive Area (ESA) around the nest if the nest is of a bird of prey, and a minimum 100-ft ESA around the nest if the nest is of an MBTA bird other than a bird of prey.*

Bird Species Protection Areas

Identification	***Location***
Bird of Prey	*500 ft no-disturbance buffer*
MBTA protected bird (not bird of prey)	*100 ft no-disturbance buffer*

- *Activity in the ESA will be restricted as follows:*
    1. *Do not enter the ESA unless authorized*
    2. *If the ESA is breached, immediately:*
        a. *Secure the area and stop all operations within 60 ft of the ESA boundary*
        b. *Notify the Engineer*
    3. *If the ESA is damaged, the City determines what efforts are necessary to remedy the damage and who performs the remedy.*
- *No construction activity will be allowed in the ESA until the biologist determines that the nest is no longer active, or unless monitoring determines that a smaller ESA will protect the active nest.*
- *The size of an ESA may be reduced if the biologist monitors the construction activities and determines that no disturbance to the active nest is occurring. Reduction of ESA size depends on the species of bird, the location of the nest relative to the project, project activities during the time the nest is active, and other project-specific factors.*
- *Between 1 February and 30 September, if additional trees or shrubs need to be trimmed and/or removed after construction has started, a survey will be conducted for active nests in the area to be affected. If an active nest is found, the above measures will be implemented.*

- *If an active nest is identified in or adjacent to the construction zone after construction has started, the above measures will be implemented to ensure construction is not causing disturbance to the nest.*

Loggerhead Shrike (*Lanius ludovicianus*): Loggerhead shrike were not observed during the September 2017 site visit. The Diamond Street, Santa Paula Way and Turnpike Road bridge sites in the Project area provide potential nesting habitat for loggerhead shrike. Implementation of BIO-4 will reduce potential impacts to less than significant.

Modesto Song Sparrow (*Melospiza melodia*): Modesto song sparrow were not observed during the September 2017 site visit. The West Lane and Turnpike bridge sites in the BSA provide potential nesting habitat for this species. Implementation of BIO-4 will reduce potential impacts to less than significant.

b) ***Less than Significant.*** Special-status natural communities in Project area includes Mormon Slough, Mosher Slough, Walker Slough, and the Calaveras River. They are special-status natural communities because they are potential waters of the U.S. Impacts to potential waters of the U.S. are discussed under Item c below. No riparian or other sensitive natural communities occur in the Project area.

There are no native or non-native trees with a diameter breast height (dbh) of at least 6 inches in the Project area at the Pershing Avenue, West Lane, Santa Paula Way, Aurora Street, and Turnpike Road bridges. Six non-native trees with a dbh of at least 6 inches occur in the Diamond Street Project area. Native oak trees (*Quercus* spp.) occur adjacent to and outside the Diamond Street bridge Project limits. No tree removal or trimming is proposed at the six bridge locations.

c) ***Potentially Significant Unless Mitigation Incorporated.*** The Project has been designed to minimize impacts to potential waters of the U.S. and state as defined by Section 404 of the Clean Water Act including the Calaveras River, Mormon Slough, Mosher Slough, and Walker Slough. The Calaveras River, Mormon Slough, Mosher Slough, and Walker Slough are tidally influenced. Approximate project impacts to potential waters of the U.S. are listed in Table 6.

Calaveras River: The Calaveras River flows east to west below the West Lane and Pershing Avenue bridges. The Calaveras River is navigable from its confluence with the San Joaquin River to 2,000 ft upstream of I-5, which is approximately 4,000 ft downstream of the Pershing Avenue Bridge (Corps 2018). Work at the West Lane bridges (north- and south-bound) would result in 0.14 acre of temporary impacts and 0.02 acre of permanent impacts to the Calaveras River. Permanent impacts would result from RSP installation below the OHWM of the Calaveras River. RSP installation would require excavations of up to approximately 3.5 feet below existing grade. The scour protection will reestablish the existing grade of the channel. The scour protection will not change the channel hydraulic capacity. The RSP would protect the bents from scour. Temporary impacts would result from water diversion and access during construction.

Work at the Pershing Avenue Bridge would be confined to the bridge deck and adjacent roadway. No temporary or permanent impacts to the Calaveras River below the Pershing Avenue Bridge are anticipated.

Mormon Slough: Mormon Slough historically flowed east to west through Stockton. The Stockton Diverting Canal, constructed in 1910, diverted flows from Mormon Slough around the east side of Stockton and to the Calaveras River. The diversion occurs approximately 3.2 miles upstream of the Diamond Street Bridge. The majority of the Mormon Slough watershed no longer flows between the Stockton Diverting Canal and South Commerce Street.

Work at the Diamond Street Bridge would result in 0.04 acre temporary impacts to Mormon Slough as a result of access during construction. Temporary impacts would result from water diversion and equipment access during installation of concreted RSP at the abutments. No permanent impacts to Mormon Slough below the Diamond Street Bridge are anticipated.

Work at the Aurora Street Bridge would result in 0.02 acre of temporary impacts to Mormon Slough as a result of access during construction. No permanent impacts to Mormon Slough below the Aurora Street Bridge are anticipated.

Mosher Slough: Mosher Slough flows east to west under the Santa Paula Way bridge and is a navigable waters of the U.S. from its confluence with 14 Mile Slough to five miles upstream to the Union Pacific Railroad (UPRR) tracks between I-5 and SR 99. The Project avoids temporary and permanent impacts to Mosher Slough. Repair work would be confined to the Santa Paula Way bridge deck and adjacent roadway.

Walker Slough: Walker Slough flows east to west below the Turnpike Road bridge and I-5, which is immediately west of Turnpike Road. Walker Slough is a navigable waters of the U.S. from its confluence with the San Joaquin River to 2.73 miles upstream at S El Dorado Street and the UPRR Railyard. The Project avoids both temporary and permanent impacts to Mosher Slough.

Implementation of BIO-5 will reduce potential impacts to lees than significant for the Calaveras River and Mormon Slough. Implementation of BIO-5 will also reduce potential impacts to lees than significant for California Central Valley steelhead.

Mitigation Measure BIO-5 (Waters and California Central Valley steelhead)

- *During construction, water quality will be protected by implementation of BMPs consistent with the City's 'Stormwater Program Best Management Practices for all Construction Sites and the most recent Caltrans Stormwater Quality Handbooks to minimize the potential for siltation and downstream sedimentation of aquatic habitats.*
- *At bridges crossing **Mormon Slough**, in-water construction activities will be restricted to the period between 15 April and the first qualifying rain event on or after 15 October (more than one half inch of precipitation in a 24-hour period), subject to the Streambed Alteration Agreement and consultation with NMFS and USFWS, unless CDFW, NMFS and/or USFWS provide approval of work outside that period. In-water work may be restricted further to work windows determined by the CVFPB. At **West Lane Bridge** over Calaveras River, in-water construction activities will be restricted to the period between 1 June and the first qualifying rain event on or after 30 September to avoid take of outmigrating juvenile California Central Valley steelhead.*
- *The temporary stream crossing of Mormon Slough at the **Diamond Street** bridge will be required to implement NS-4 "Temporary Stream Crossing" from the Caltrans (2003) Storm*

Water Quality Handbooks: Construction Site Best Management Practice Manual to minimize water quality impacts to Mormon Slough.

- *Equipment will be refueled and serviced at designated construction staging areas. All construction material will be stored and contained in a designated area that is located away from channel areas to prevent transport of materials into adjacent waterways. Appropriate BMPs will be installed to collect any discharge, and adequate materials for spill cleanup will be kept on site. Construction vehicles and equipment will be maintained to prevent contamination of soil or water from external grease and oil or from leaking hydraulic fluid, fuel, oil, and grease.*
- *The City will mitigate at a minimum 1:1 ratio for impacts to wetlands and waters of the U.S and State in accordance with the State of California's no-net-loss of wetlands policy and minimum mitigation ratio for impacts to wetlands and waters of the State. The City will comply with any compensatory mitigation requirement of a Clean Water Act Section 404 permit, Section 401 Water Quality Certification, CDFW Streambed Alteration Agreement, and Central Valley Flood Protection Board encroachment permit, as applicable.*

d) ***Less Than Significant Impact.*** The Project occurs in a highly urbanized setting. Construction of the project could temporarily disrupt movement of native urban wildlife species that may occur in or adjacent to the Project area. Daytime construction activities will result in minimal disruption of nocturnal wildlife movement. Although construction disturbance may temporarily hinder wildlife movements within the Project area, the impact is less than significant due to its short-term nature.

e) ***No Impact.*** The proposed Project does not anticipate the need for tree removal including native oaks. The Project does not conflict with any local policies or ordinances protecting biological resources. Also see discussion under item f below.

f) ***Less Than Significant Impact.*** The Project is located within the San Joaquin County Multi-Species Open Space and Habitat Conservation Plan (SJMSCP) (SJCOG 2000) coverage area. The SJMSCP, adopted by San Joaquin County, the City, and other cities within San Joaquin County, is a comprehensive 50-year plan that was developed to provide a strategy for protecting the region's agricultural economy through balancing the need to conserve Open Space and the need to convert Open Space to non- Open Space uses. The SJMSCP and its habitat conservation fee provides for the long-term management of plant, fish, and wildlife species, especially those that are listed or eligible for listing under the Federal Endangered Species Act (FESA) or the California Endangered Species Act (CESA).

The SJMSCP implements a program that assesses a habitat conservation fee on participating projects that convert open space land to an urban use. The SJMSCP Habitat Map for the City of Stockton classifies the Calaveras River, Mormon Slough, Mosher Slough, and Walker Slough as '*Category D Natural Lands, Pay Zone B (Natural)*'. The proposed Project includes conducting routine maintenance activities on existing bridge structures within established City road ROW. The maintenance activities will not convert Category D Natural Lands to an Urban Use and are exempt from SJMSCP fees. The biological resource mitigation measures included in this document are sufficient to reduce potential impacts on species covered by the SJMSCP to less than significant.

5.2.5 Cultural Resources

V. CULTURAL RESOURCES—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

Environmental Setting

Far Western Anthropological Research Group, Inc. prepared a 'Cultural Resources Studies' memorandum in 2018. The Cultural Resources Studies memo documented only the efforts undertaken as part of the initial environmental review. These efforts were limited to an archaeological survey of each of the six project sites and a review of the Caltrans Local Agency Historic Bridge Inventory.

All six bridges are listed on the Caltrans Local Agency Historic Bridge Inventory and all are listed as 'Not Eligible for the National Register of Historic Places'. Planned work will not directly or indirectly affect any built environment resources.

Potential Environmental Effects

a) ***No Impact.*** All six bridges are listed as 'Not Eligible for the National Register of Historic Places' on the Caltrans Local Agency Historic Bridge Inventory. Planned work will not directly or indirectly affect any built environment resources. The proposed Project will have no effect on historic properties or on historical resources.

b) ***Potentially Significant Unless Mitigation Incorporated.*** The archaeological pedestrian survey did not identify archaeological deposits at any of the six bridges. Pieces of concrete and three potentially historic-era features (a wood post and fire hydrant at the Aurora Bridge, and historic culverts adjacent to the West Lane and Turnpike Bridge) were noted but not recorded. These will not be affected by planned project activities. Some shell was noted adjacent to the Turnpike and West Lane bridges but no other evidence of prehistoric occupation was found and it is likely that the shell occurs naturally within the waterways. No resources were identified in the project area during survey and therefore the project will not affect any known resources.

   Although no evidence of cultural resources was found, it remains a possibility that subsurface resources could be uncovered by project construction work. The project sites have been intensively disturbed. Nevertheless, general provisions for the discovery of previously unknown cultural resources are considered appropriate. Mitigation described below sets forth procedures to be implemented to protect cultural resources should any be uncovered during project construction.

Implementation of this mitigation measure would reduce potential impacts on these resources to a level that would be less than significant.

Mitigation Measure CULT-1 (Unanticipated Discoveries)

- *If any subsurface cultural or paleontological resources are encountered during project construction, all activities shall be halted at the site of the encounter until a qualified archaeologist or paleontologist, as appropriate, can examine these materials, determine their significance and, if significant, recommend mitigation measures that would reduce potential effects to a level that is less than significant. Such measures could include 1) preservation in place or 2) excavation, recovery and curation by qualified professionals. The project applicant shall be responsible for retaining qualified professionals, implementing recommended mitigation measures, and documenting mitigation efforts in a written report, consistent with the requirements of the CEQA Guidelines.*

c) ***Potentially Significant Unless Mitigation Incorporated*:** The Project does not occur in an area containing unique geologic features. The project would not likely impact paleontological features. There is the possibility of accidental paleontological discoveries during construction-related ground-disturbing activities. Implementation of CULT-1 will reduce potential impacts to less-than-significant.

d) ***Less Than Significant Impact.*** The archaeological pedestrian survey documents that no known cemeteries or burials occur within the project study area. Should human remains be discovered during the excavation portion of the Project, the project contract provisions will require notification of City and compliance with California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097.9 et seq.

5.2.6 Tribal Cultural Resources

VI. Tribal Cultural Resources:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) 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:	☐	☐	☐	☒
i) 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	☐	☐	☐	☒
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☒

Potential Environmental Effects

a) ***No Impact (applies to items i and ii).*** The City of Stockton has not received in any requests in writing from California Native American tribes to be notified by through formal notification of proposed projects in the geographic area with which the tribe is traditionally and culturally affiliated.

5.2.7 Energy

Energy	*Potentially Significant Impact*	*Potentially Significant Unless 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?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

a) ***Less Than Significant.*** The Project does not introduce any new operational energy demands to the project area. All construction equipment would be regulated per the California Air Resources Board (CARB) In-Use Off-Road Diesel Vehicle Regulation. CARB standards for construction equipment includes measures to reduce emissions from vehicles by subjecting fleet owners to retrofit or accelerated replacement/repower requirements and imposing idling limitations on owners, operators, renters, or lessees of off-road diesel vehicles. Project construction would also be required to comply with all applicable SJVAPCD rules and regulations. Future road and bridge maintenance activities (e.g. vegetation control, street sweeping etc.) would likely involve the use of electric or gas-powered equipment.

The project would be required to comply with all applicable standards and regulations regarding energy conservation and fuel efficiency, which would ensure that the future activities would be energy efficient to the maximum extent practicable. The project would not be considered to result in a wasteful, inefficient, or unnecessary use of energy, and impacts related to construction and operational energy would be considered less than significant.

b) ***No Impact:*** The Project includes routine bridge and road maintenance activities at six locations in the City of Stockton.

5.2.8 Geology and Soils

VII. GEOLOGY AND SOILS—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless*	*Less Than Significant Impact*	*No Impact*

		Mitigation Incorporated		
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?	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

Environmental Setting

The project site lies within the Great Valley geomorphic province of California, which is an alluvial plain about 50 miles wide and 400 miles long in the central part of California. The Great Valley is a trough in which sediments have been deposited almost continuously since the Jurassic Era (about 160 million years ago). The City of Stockton is located in an upland portion of the San Joaquin Valley on alluvial, silt, sand, and gravel deposits of the lower terraces of the San Joaquin River.

The City of Stockton is not located in a seismic hazard zone (Alquist-Priolo Earthquake Fault Zone) therefore the risk of surface fault rupture within the City is considered low (CDOC 2019a).

There are no active or potentially active faults in the vicinity of the project. The nearest faults with recognized Quaternary displacement are the Foothill Fault Zone and Midland Fault, approximately 13 and 19 miles away, respectively. Comparatively few subsurface faults have been mapped in the northern part of the San Joaquin Valley, and the largest of these subsurface faults is the Stockton Fault. The Stockton Fault is a south-dipping reverse fault that trends east-west. The fault is not exposed at the surface and its location has been estimated from drilling logs. It appears to have a complex history, and may have experienced as much as 1,100 meters of displacement. It is not, however, a recently active fault, with most of the reported activity occurring in the Oligocene and early Miocene (i.e., approx. 10 to 30 million years before present). Furthermore, the Stockton Fault has not been classified as an “active” fault by the California Geologic Survey (CGS).

Soils present in the Project area are listed by site in Table 7 below.

Table 7. Soil Series Present at the Six Bridge Sites

Bridge Site	**Mapped Soil(s)**
West Lane over Calaveras River	Vignolo silty clay loam, 0 to 2% slopes Stockton silty clay loam, 0 to 2% slopes, overwashed
Pershing Avenue over Calaveras River	Jacktone-Urban land complex, 0 to 2% slopes Columbia fine sandy loam, drained, 0 to 2% slopes
Diamond Street over Mormon Slough	Yellowlark gravelly loam, 2 to 5% slopes
Aurora Street over Mormon Slough	Jacktone-Urban land complex, 0 to 2% slopes
Santa Paula Way over Mosher Slough	Jacktone-Urban land complex, 0 to 2% slopes
Turnpike Road over Walker Slough	Jacktone-Urban land complex, 0 to 2% slopes

All soils in these series formed in alluvium from mixed sources. Most soils in these series are moderately well-drained, except Stockton silty clay loam and Jacktone-Urban land complex, which are somewhat poorly drained soils. The Vignolo series consists of slightly alkaline, silty clay loam to clay loam on low fan terraces and alluvial fans. The Stockton series consists mostly of moderately alkaline clay in basins or swales of drainage ways. The Jacktone series consists mostly of neutral to strongly alkaline clay in or along the rim of basins. The Columbia series consists mostly of slightly acidic fine sandy loam on floodplains and natural levees. The Yellow lark series consists mostly of strongly acidic gravelly loam on intermediate fan terraces and stream terraces.

Potential Environmental Effects

a) ***i) Less Than Significant Impact.*** The City of Stockton is not located in a seismic hazard zone (Alquist-Priolo Earthquake Fault Zone). Surface fault rupture is associated with being located on or within close proximity of an active fault. Because the City is not within, and does not cross, an Alquist-Priolo Earthquake Fault Zone, the risk of surface fault rupture within the City is considered low. Therefore, the Project will not rupture a fault mapped on the most recent Alquist-Priolo Earthquake Fault Zoning Map.

ii) Less Than Significant Impact. Earthquake shaking hazards are calculated by projecting earthquake rates based on earthquake history and fault slip rates, the same data used for calculating earthquake probabilities (CDOC 2019a). Calculations of earthquake shaking hazard for California are part of a cooperative project between USGS and California Geologic Survey (CGS), and are part of the National Seismic Hazard Maps. CGS Map Sheet 48 (revised 2016) shows potential seismic shaking based on National Seismic Hazard Map calculations plus amplification of seismic shaking due to the near surface soils. The City of Stockton County is located in a region '*distant from known, active faults and will experience lower levels of shaking less frequently. In most earthquakes, only weaker, masonry buildings would be damaged. However, very infrequent earthquakes could still cause strong shaking here.*' The Project is not in a seismic hazard zone.

iii) Less Than Significant Impact. Per the City General Plan Draft Environmental Impact Report based on reviews of local geotechnical investigations, including an investigation in support of courthouse in Downtown Stockton, much of the shallow sediments beneath the City is dominated by

clays and clay-rich deposits (City of Stockton 2018b). These soil types are less susceptible to liquefaction behavior. Therefore, the likelihood of substantial adverse effects from the Project to seismically-triggered liquefaction is considered low and the impact from implementation of the proposed Project would be less than significant.

iv) No Impact. The Project area is relatively flat and not susceptible to landslide hazards. There would be no impact.

b) ***Less Than Significant Impact.*** Construction of the proposed project could introduce sediments and other contaminants typically associated with construction into stormwater runoff. The SWRCB is responsible for implementing the Clean Water Act and has issued a statewide General Permit (Water Quality Order 2009-0009-DWQ) for construction activities. In the Project area, the Construction General Permit is implemented and enforced by the Central Valley Regional Water Quality Control Board (CVRWQCB). Projects resulting in disturbance of one acre or more are required to obtain coverage under the Construction General Permit. The proposed Project will require coverage under the SWRCB Construction General Permit.

In accordance with the requirements of the Construction General Permit, prior to construction of the proposed project, a risk assessment must be prepared and submitted to the CVRWQCB to determine the project's risk level and associated water quality control requirements. These requirements will, at a minimum, include the preparation and implementation of a SWPPP identifying specific best management practices (BMPs) to be implemented and maintained on the site in order to comply with the applicable effluent standards.

Compliance with the various requirements of the City's Storm Water Management Plan and SWRCB statewide general permit for construction ensure that water quality impacts during the construction phase of the proposed project would be minimized. Measure BIO-5 requires implementation of BMPs consistent with City's 'Stormwater Program Best Management Practices for all Construction Sites and the Caltrans Stormwater Quality Handbooks to protect water quality and minimize the potential for siltation and downstream sedimentation. Construction activities will include implementation of stormwater runoff BMPs. Application of these requirements and measures would prevent substantial erosion or topsoil loss.

c) ***No Impact.*** The Project does not include activities that would result in soil units onsite becoming unstable, and potentially result in on or offsite landslide, lateral spreading, subsidence, liquefaction or collapse.

d) ***Less Than Significant Impact.*** Expansive soils that may swell enough to cause problems with paved surfaces are generally clays falling into the AASHTO A-6 or A-7 groups, or classified as CH, MH, or OH by the Unified Soil Classification System (USCS), and with a Plasticity Index greater than about 25 as determined by ASTM D4318. Chapter 610 of the Caltrans Highway Design Manual (2012) defines an expansive subgrade to include soils with a Plasticity Index greater than 12 (Caltrans 2012).

AASHTO group classification is a system that classifies soils specifically for geotechnical engineering purposes that are related to highway and airfield construction. It is based on particle-size distribution and Atterberg limits, such as liquid limit and plasticity index.

AASHTO and USCS classification for the soils in the Project area are listed in Table 8 (NRCS 2019). The NRCS Web Soil Survey indicates the maximum plasticity index of soils in the Project area ranges

from 9.8 to is 27.5 (NRCS 2019). Soils in the Project area may have a moderate to high expansion potential.

Table 8. AASHTO and USCS soil classes for Project area

Soil Units In Project Area	**Classification**	
	AASHTO	**USCS**
Columbia fine sandy loam, drained, 0 to 2% slopes	A-4	CL: Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
Jacktone-Urban land complex, 0 to 2% slopes	A-7	CH: Inorganic clays of high plasticity, fat clays
Stockton silty clay loam, 0 to 2% slopes, overwashed	A-6	ML: Inorganic silts and very fine sands, rock flour, silty of clayey fine sands or clayey silts with slight plasticity
Vignolo silty clay loam, 0 to 2% slopes	A-6	CL: Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
Yellowlark gravelly loam, 2 to 5% slopes	A-4	SC-SM: SC= Clayey sands, sand-clay mixtures SM=Silty sands, sand-silt mixtures

The Project is being designed in accordance with the special engineering or construction considerations outlined in Chapter 610 "Engineering Considerations" of the Highway Design Manual, California Transportation Department, as applicable. Because the project is being designed in accordance with the Caltrans Highway Design Manual and will consider and address expansive soils impacts are considered less than significant.

e) ***No Impact.*** The proposed Project is a surface transportation project. Septic tanks and alternative wastewater disposal systems are not part of the Project.

5.2.9 Greenhouse Gas Emissions

VIII.GREENHOUSE GAS EMISSIONS—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless 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?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Environmental Setting

Over a period of approximately seven years, the City of Stockton developed a Climate Action Plan (CAP), which was adopted in August of 2014. The CAP "outlines a framework to feasibly reduce community greenhouse gas (GHG) emissions in a manner that is supportive of Assembly Bill (AB) 32 and is consistent with the Settlement Agreement and 2035 General Plan policy." The CAP addresses a range of potential GHG reduction measures, including reduction of GHGs associated with government operations; more specific to the project, the CAP implement Stockton General Plan Policy HS-4.20 by adopting new policies that "require new development to reduce its greenhouse gas emissions to the extent feasible in a manner consistent with state legislative policy as set forth in AB 32."

The CAP describes additional "Supporting BMPs that will contribute to GHG emission reduction", but potential emission reductions are not quantified. The CAP also describes a non-mandatory Climate Impact Study that can be used to document GHG emission reductions; projects may also use equivalent analysis to document GHG emission reductions. The CAP also includes substantial background information on global climate change and GHG emission reduction, including an extensive discussion of applicable regulatory requirements.

In 2009 the SJVAPCD adopted Guidance Methodology for addressing GHG emissions under CEQA and a Climate Change Action Plan (CCAP). The adopted a CCAP identifiers strategies to reduce GHG emissions in the SJVAPCD. The SJVAPCD's methodology includes the following tiered approach:

- If a project is exempt from CEQA, individual-level and cumulative GHG emissions are treated as less than significant.
- If the project complies with a GHG emissions reduction plan or mitigation programs that avoid or substantially reduce GHG emissions in the geographic area where the project is located (i.e., city or county), individual-level and cumulative GHG emissions are treated as less than significant.
- SJVAPCD does not have thresholds of significance for construction-related GHG emissions. Construction emissions are one-time, nonrecurring emissions. For buildings in general, it is reasonable to look at a 30-year time frame, since this is a typical interval before a new building requires its first major renovation. Therefore, construction emissions are amortized over a 30-year duration and included in the operational emissions analysis for informational purposes. GHG emissions from construction activity are therefore not assumed to significantly contribute to cumulative GHG emissions impacts of the proposed project.

The San Joaquin County Council of Governments (SJCOG) is a joint-powers authority comprised of the County of San Joaquin and the cities of Stockton, Lodi, Manteca, Tracy, Ripon, Escalon, and Lathrop. The role of SJCOG is to foster intergovernmental coordination - within San Joaquin County - and with neighboring jurisdictions; the other regional agencies for in the San Joaquin Valley; the state of California; and various Federal agencies. SJCOG serves as the agency responsible for adopting a Regional Transportation Plan, a Regional Transportation Improvement Program which programs state funds within the region's boundaries. In addition, it gives SJCOG planning and coordination responsibilities over most federal and state funding programs for transportation administered by the State of California.

Potential Environmental Effects

a) ***Less Than Significant Impact.*** Construction of the proposed Project would generate short-term emissions of GHG. The proposed Project does not increase the capacity of the streets involved and would not increase operational GHG levels. Project impacts area less than significant.

b) ***Less Than Significant Impact.*** The Project is identified and evaluated in the SJCOG 2018 Regional Transportation Plan Sustainable Communities Strategy (RTP/SCS) as grouped project SJ07-3002 (CTIPS ID # 212-0000-0272) (SJCOG 2018). The 2018 RTP/SCS is the applicable GHG emissions reduction plan for the Project. Projects included in the RTP/SCS have been determined to be consistent with the planning goals of the State Implementation Plan. The Project will not conflict with the applicable GHG reduction plan as it was included in the 2018 RTP/SCS analysis.

5.2.10 Hazards and Hazardous Materials

IX. HAZARDS AND HAZARDOUS MATERIALS—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless 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?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 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?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☒	☐

Environmental Setting

Initial Site Assessments (ISA) were conducted for each of the six bridge sites (Pinnacle Environmental 2019a-f). The ISAs provide information regarding whether the proposed Project could be significantly affected by potential recorded or readily visible ASTM Recognized Environmental Conditions (RECs) that may be present at the subject sites. Recommendations for further action are provided as applicable.

A regulatory agency database review for locations included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (The Cortese list') was conducted as part of the ISA. No listed hazardous materials or waste sites were reported within the project area.

Potential Environmental Effects

a) ***Less Than Significant Impact.*** Small amounts of hazardous materials would be used during construction activities (i.e., equipment maintenance, fuel, and solvents). Implementation of the proposed Project would continue the use, transport, and disposal of potentially hazardous materials on and in the vicinity of the project site, similar to existing conditions. The Project is required to comply with federal, state, and local regulations regarding the storage, handling, transportation, disposal, and cleanup of hazardous materials. Use of hazardous materials in accordance with applicable standards ensures that any exposure of the public to hazard materials would have a less-than-significant impact.

b) ***Potentially Significant Unless Mitigation Incorporated:*** The ISAs for the Project sites identified the following potentially hazardous materials at each of the six bridge sites (Pinnacle Environmental 2019a-f):

- Potential asbestos in bridge concrete
- Potential for Aerially Deposited Lead (ADL) within the project area soils
- Ash/burned debris beneath or adjacent to bridges
- Regulated wastes (e.g. tires, electronics)
- Pavement striping may contain lead chromate

In addition, at the Aurora Street site:

- Three areas of apparent used oil saturated soils from illicit dumping were located at the southwest abutment corner, the southeast abutment corner (at a natural gas pipeline elbow), and on the northern slough bank about 10 feet west of the bridge (at a wrought iron fence).

Implementation of HAZ-1 will reduce potential impacts to less than significant.

Mitigation Measure HAZ-1 (Testing and Remediation)

- *Project specifications/ contract provisions will require preconstruction testing and remediation of potential recognized environmental concerns (REC) in accordance with the most recent applicable Caltrans Standard Specifications. REC's identified at the West Lane Bridge over Calaveras River, Pershing Avenue Bridge over the Calaveras River, Aurora Street Bridge over Mormon Slough, Aurora Street Bridge over Mormon Slough, Santa Paula Way Bridge over Mosher Slough, and Turnpike Road Bridge over Walker Slough include ADL, ash/burned debris, regulated/ non-regulated wastes, and pavement striping.*

- *In addition to the REC's identified above, a REC for apparent used oil dumping was identified at the Aurora Street site. Project specifications/ contract provisions will require preconstruction testing and remediation of potential used oil dumping REC in accordance with the most recent applicable Caltrans Standard Specifications, as applicable.*
- *Handling, storage, use, and disposal of hazardous materials during construction will comply with all applicable local, state, and federal standards.*

c) ***Less Than Significant Impact.*** Kennedy Elementary School occurs immediate northeast of the Santa Paula Way site. The Walton Special Center School, Kohl Elementary School, and Stagg High School occur within 0.25 mile of the Pershing Av. site. Taft Elementary School is located approximately 0.24 mile southeast of the Turnpike Road site. As noted above, Project construction would involve the short-term handling of hazardous materials during construction. Any potential construction-related hazardous releases or emissions would be from commonly used materials such as fossil fuels, solvents, and paints and would not include substances listed in 40 CFR 355 "*Extremely Hazardous Substances and Their Threshold Planning Quantities*." Handling and storage of hazardous materials during construction would comply with all applicable local, state, and federal standards. The Project does not include any operational impacts. Project impacts are less than significant.

d) ***No Impact.*** A regulatory agency database review for locations included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (The Cortese list') was conducted as part of the ISAs (Pinnacle Environmental 2019a-f). No listed hazardous materials or waste sites were reported within the project area.

e) ***No Impact.*** The Project is not located within two miles of a public airport or public use airport and no private air strips occur in close proximity to the Project. The Stockton Metropolitan airport is located approximately 2.33 miles southeast of the southernmost Project site (Turnpike Road over Walker Slough).

f) ***No Impact.*** See response of item e) above.

g) ***Less Than Significant Impact.*** Project construction may include controlled traffic and potential short term temporary lane closures at all sites. Project construction activities would be coordinated with local law enforcement and emergency services providers as applicable.

h) ***Less Than Significant Impact.*** The completed Project will not expose people or structures to a new or increased significant risk of loss, injury or death involving wildland fires. Project construction activities would be coordinated with local law enforcement and emergency services providers as needed.

5.2.11 Hydrology and Water Quality

X. HYDROLOGY AND WATER QUALITY—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or offsite?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or offsite?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☐	☒
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Environmental Setting

The City prepared a Water Quality Assessment memo for the Project and Caltrans approved the memo in March 2019 (Sycamore Environmental 2019d). The memo was prepared using guidance provided in '*2012 Water Quality Assessment Report Content and Recommended Format*' and '*Revised Scoping Questionnaire for Water Quality Issues*'. The memo concludes the following regarding short- and long-term project related water quality impacts:

- **Short-Term Water Quality Impacts:** Project grading, equipment operations/ maintenance including use of fuels/ lubricants/ batteries/ coolants, are the primary activities and materials that have the potential to pollute stormwater. Potential impacts to waterbodies will be avoided through the implementation of a water pollution prevention plan and avoidance measures during construction.
- **Long-Term/ Cumulative Water Quality Impacts:** No negative long term or cumulative water quality impacts were identified. The Project will likely result in long term positive affects to Walker Slough, Mormon Slough, Calaveras River and Mosher Slough in the Project area. Scour and erosion

countermeasures will reduce sedimentation in the Project area. Improved drainage on bridge decks and approaches will reduce potential localized flooding and pollutant loading from run-off.

Walker Slough at Turnpike Road is within Zone AE (FEMA 2009). Mormon Slough at Diamond Street and Aurora Street, the Calaveras River at Pershing Avenue and West Lane, and Mosher Slough at Santa Paula Way are located in Zone A (FEMA 2009). FEMA flood map Zones A and AE are both defined as being inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year. The 1-percent annual chance flood is also referred to as the base flood or 100-year flood.

All water bodies within the Project area are regulated by the Central Valley Flood Protection Board. The Project will not alter the current height or freeboard of the bridges. The Project does not include any activities that will encroach on the existing floodplain.

Potential Environmental Effects

a) ***Less Than Significant Impact.*** Construction of the proposed project could introduce sediments and other contaminants typically associated with construction into stormwater runoff. Stormwater flowing over the project features during construction could carry various pollutants downstream such as sediment, nutrients, bacteria and viruses, oil and grease, heavy metals, organics, pesticides, and miscellaneous waste. These pollutants could originate from soil disturbances, construction equipment, building materials, and workers. Erosion potential and water quality impacts are always present during construction and occur when protective vegetative cover is removed and soils are disturbed.

The SWRCB and RWQCB's are responsible for implementing the Clean Water Act Section 402 (National Pollutant Discharge Elimination System, NPDES) in California. The NPDES stormwater program regulates some stormwater discharges from three potential sources: municipal separate storm sewer systems (MS4s), construction activities, and industrial activities. Under its Section 402 responsibility the SWRCB issued a statewide Construction General Permit (Water Quality Order 2009-0009-DWQ) for construction activities. Projects resulting in disturbance of one acre or more are required to obtain coverage under the Construction General Permit. The proposed Project will require coverage under the SWRCB Construction General Permit. In accordance with the requirements of the Construction General Permit, prior to construction of the proposed project, a risk assessment must be prepared and submitted to the CVRWQCB to determine the project's risk level and associated water quality control requirements. These requirements will, at a minimum, include the preparation and implementation of a SWPPP identifying specific best management practices (BMPs) to be implemented and maintained on the site in order to comply with the applicable effluent standards." In the Project area, the Construction General Permit is implemented and enforced by the Central Valley Regional Water Quality Control Board (CVRWQCB).

Compliance with the various requirements of the City's Storm Water Management Plan and SWRCB statewide general permit for construction ensure that water quality impacts during the construction phase of the proposed project would be minimized. Measure BIO-5 requires implementation of BMPs consistent with City's 'Stormwater Program Best Management Practices for all Construction Sites and the Caltrans Stormwater Quality Handbooks to protect water quality and minimize the potential for siltation and downstream sedimentation. Construction activities will include implementation of stormwater runoff BMPs.

As per the Final California 2014/ 2016 Integrated Report (303(d) List/305(b) Report) (SWRCB 2018b), Walker Slough in the Project area is identified as Category 4A water body. Category 4A listed waters are water segments where all its 303(d) listings are being addressed and at least one of those listings is being addressed by a USEPA-approved total maximum daily load (TMDL). Walker Slough was listed as a Category 4A water body due to:

- ***Indicator Bacteria:*** The source of the pollutant is unknown. The USEPA approved a TMDL on 13 May 2008 titled Stockton Area Sloughs and Rivers – Pathogens. This segment of Walker Slough is considered to be exceeding standards but being addressed by a USEPA-approved TMDL.

Mormon Slough within the Project area is identified as a Category 5 water body. Category 5 listed waters are water segments where standards are not met and a TMDL is required, but not yet completed, for at least one of the pollutants. Mormon Slough is listed as a Category 5 water body due to:

- ***Indicator Bacteria:*** The source of the pollutant is unknown and a TMDL is expected to be completed by 2027.
- ***Propanil (DCPA mono- and di-acid degrad):*** A commonly used contact herbicide in the U.S. Propanil is heavily used in rice production. The Regional and State Board recommended against placing this segment of Mormon Slough on the 303(d) list (TMDL required list) for Propanil during the 2014 Integrated Report review cycle.

The Calaveras River within the Project area is identified as a Category 5 water body due to:

- ***Diazinon:*** A nonsystemic organophosphate insecticide used heavily in the 1970s and 1980s for general purpose gardening and indoor pest control. Residential uses of diazinon were outlawed in the U.S. in 2004, but it is still approved for agricultural uses. The source of the diazinon is identified as Agriculture. The USEPA approved a TMDL on 10 October 2007 titled the Delta Diazinon and Chlorpyrifos Project. This segment of the Calaveras River is considered to be impaired by diazinon, but the impairment is being addressed by the TMDL.
- ***Mercury:*** The sources for mercury in this segment of the Calaveras River include agricultural return flows, atmospheric deposition, highway/road/bridge runoff, industrial point sources, municipal point sources, natural sources, resource extraction, and urban runoff/ storm sewers. The USEPA approved a TMDL on 20 October 2011 titled the Delta Methylmercury TMDL Project. No new data was provided for the 2014 Integrated Report. The water body is considered impaired but being addressed by the TMDL.
- ***Organic Enrichment/ Low Dissolved Oxygen:*** Organic enrichment is the loading of rotting organic material in a water body. Organic enrichment can be inversely related to Dissolved Oxygen. Low Dissolved Oxygen negatively affects Aquatic life. The source of this pollutant is unknown. Expected TMDL Completion Date was 2012. The TMDL has not been completed.
- ***Chlorpyrifos:*** An organophosphate insecticide, acaricide and miticide used primarily to control foliage and soil-borne insect pests on a variety of food and feed crops. The source of the Chlorpyrifos is agriculture. The USEPA approved a TMDL on 10 October 2007 titled the Delta

Diazinon and Chlorpyrifos Project. This segment of the Calaveras River is considered to be impaired by Chlorpyrifos, but the impairment is being addressed by the TMDL.

- ***Indicator Bacteria/ Escherichia coli:*** Bacteria found in the environment, foods, and intestines of people and animals. The source of the E. coli is Urban Runoff/ Storm Sewers. The USEPA approved a TMDL on 13 May 2008 titled the Stockton Area Sloughs and Rivers - Pathogens. No new data was available for the 2014 Integrated Report. The impairment is being addressed by the TMDL.

Mosher Slough within the Project area is identified as a Category 5 water body due to:

- ***Chlorpyrifos:*** An organophosphate insecticide, acaricide and miticide used primarily to control foliage and soil-borne insect pests on a variety of food and feed crops. The source of the Chlorpyrifos is Urban Runoff/ Storm Sewers. The USEPA approved a TMDL on 10 October 2007 for the Delta Diazinon and Chlorpyrifos Project. This segment of the Mosher Slough is considered to be impaired by Chlorpyrifos, but the impairment is being addressed by the TMDL.
- ***Diazinon:*** A nonsystemic organophosphate insecticide used heavily in the 1970s and 1980s for general purpose gardening and indoor pest control. Residential uses of diazinon were outlawed in the U.S. in 2004, but it is still approved for agricultural uses. The source of the diazinon is identified as Urban Runoff/ Storm Sewers. The USEPA approved a TMDL on 10 October 2007 for the Delta Diazinon and Chlorpyrifos Project. This segment of Mosher Slough is considered to be impaired by diazinon, but the impairment is being addressed by the TMDL.
- ***Mercury:*** The sources for mercury in this segment of Mosher Slough include agricultural return flows, atmospheric deposition, highway/road/bridge runoff, industrial point sources, municipal point sources, natural sources, resource extraction, and urban runoff/ storm sewers. The USEPA approved a TMDL on 20 October 2011 for the Delta Methylmercury TMDL Project. No new data was provided for the 2014 Integrated Report. The water body is considered impaired but being addressed by the TMDL.
- ***Organic Enrichment/ Low Dissolved Oxygen:*** Organic enrichment is the loading of rotting organic material in a water body. Organic enrichment can be inversely related to Dissolved Oxygen. Low Dissolved Oxygen negatively affects Aquatic life. The source of this pollutant is unknown. Expected TMDL Completion Date is 2027.
- ***Azinphos-methyl (Guthion):*** Azinphos-methyl is the active ingredient in the organophosphate pesticide Guthion. The use of this pesticide has been fully banned in the U.S. since 2013. The Regional and State Board recommended against placing this segment of Mosher Slough on the 303(d) list (TMDL required list) for Azinphos-methyl (Guthion) during the 2014 Integrated Report review cycle.
- ***Simazine:*** An herbicide used to control broad-leaved weeds and annual grasses. The Regional and State Board recommended against placing this segment of Mosher Slough on the 303(d) list (TMDL required list) for Simazine during the 2014 Integrated Report review cycle.

- ***Indicator Bacteria:*** The source of the pollutant is unknown. The USEPA approved a TMDL on 13 May 2008 titled the Stockton Area Sloughs and Rivers - Pathogens. No new data was available for the 2014 Integrated Report. The impairment is being addressed by the TMDL.

None of the pesticides, herbicides, or other contaminants for which there are TMDLs will be used for the Project. Several USEPA-approved TMDLs are being implemented within the Project area including the Stockton Area Sloughs and Rivers – Pathogens Project, the Delta Diazinon and Chlorpyrifos Project, and the Delta Methylmercury TMDL Project. The Project will not interfere with or otherwise obstruct implementation of these TMDLs. BMPs would be utilized during and after construction to control potential discharges of pollutants to surface water as needed.

The Calaveras River, Mosher Slough, Mormon Slough, and Walker Slough are located within the boundaries of the Water Quality Control Plan (Basin Plan) for the California Regional Water Quality Control Board (RWQCB), Central Valley Region (Region 5). Water quality standards consist of beneficial uses and water quality objectives, as defined in the Basin Plan. The Basin Plan lists (designates) beneficial uses applicable to major waterbodies located within the Central Valley including waterbodies within the legal boundary of the Sacramento-San Joaquin Delta. Since a portion of all four waterbodies are situated within the legal boundary of the Delta, those beneficial uses apply. The existing Sacramento-San Joaquin Delta beneficial uses are those listed in Table II-1 of the Basin Plan (RWQCB 2016). Beneficial uses for Calaveras River, Mosher Slough, Mormon Slough, and Walker Slough are the same as those for the Sacramento-San Joaquin Delta listed in Table 9 below.

Table 9. Beneficial Uses Sacramento-San Joaquin Delta and Ground Water Basin 5-022.01

		Agriculture		**Industry**			**Recreation**				**Freshwater Habitat**		**Migration**		**Spawning**			
	MUN	AGR		PROC	IND	POW	REC-1		REC-2	COMM	Warm	Cold	MIGR		SPWN		WILD	NAV
	Municipal and domestic Supply	Irrigation	Stock watering	Process	Service supply	Power	Contact	Canoe and Rafting	Other Noncontact	Commercial and Sport Fishing	Warm	Cold	Warm	Cold	Warm	Cold	Wildlife habitat	Navigation
Sacramento San Joaquin Delta	E	E	E	E	E	--	E	--	E	E	E	E	E	E	E	E	E	--
Ground Water Basin 5-022.01	E	E	E	E	--	--	--	--	--	--	--	--	--	--	--	--	--	--

The Project does not include activities that would affect the beneficial uses and water quality objectives, as defined in the Basin Plan. Project impacts are less than significant.

b) ***No Impact.*** The Project would not involve any withdrawals from an aquifer or groundwater table and would not interfere with groundwater recharge.

c) ***Less Than Significant Impact.*** Implementation of project activities may result in minor changes in site drainage. The proposed Project does not include activities that will change the course of any stream or river.

d) ***Less Than Significant Impact.*** See response to item ‘c’ above.

e) ***Less Than Significant Impact.*** The Project would not provide additional sources of runoff compared with the existing bridges. Any minor increase of impervious surface area resulting from repairs to the approaches or installation of concreted RSP is not expected to contribute to a substantial increase in water runoff from the site.

f) ***No Impact.*** No additional impacts other than those discussed above are anticipated.

g) ***No Impact.*** Walker Slough at Turnpike Road is within Zone AE (FEMA 2009). Mormon Slough at Diamond Street and Aurora Street, the Calaveras River at Pershing Avenue and West Lane, and Mosher Slough at Santa Paula Way are located in Zone A (FEMA 2009). FEMA flood map Zones A and AE are both defined as being inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year. The 1-percent annual chance flood is also referred to as the base flood or 100-year flood.

All water bodies within the Project area are regulated by the Central Valley Flood Protection Board. The Project will not alter the current height or freeboard of the bridges. The Project does not include any activities that will encroach on the existing floodplain.

h) ***No Impact.*** See response to item g) above.

i) ***No Impact.*** The Project does not propose activities that would increase flood risk.

j) ***No Impact.*** The Project is not in an area subject to seiche or tsunami.

5.2.12 Land Use and Planning

XI. LAND USE AND PLANNING—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Environmental Setting

The 2018 *Envision Stockton 2040 General Plan* is the relevant land use plan for the project area. The Project occurs within existing City street ROW.

Potential Environmental Effects

a) ***No Impact.*** The Project includes conducting maintenance activities on existing City road and bridges at six locations and would not physically divide an established community.

b) ***No Impact.*** The proposed Project is consistent with the City General Plan.

c) ***No Impact.*** The Project is consistent with the SJMSCP.

5.2.13 Mineral Resources

XII. MINERAL RESOURCES—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Environmental Setting

The mineral resource development potential of lands in California are classified by the State Geologist into Mineral Resource Zones (MRZs), in accordance with the California Mineral Land Classification System. According to the California Geologic Survey the City of Stockton including all six project sites is classified as MRZ-1 (CDOC 1989). MRZ-1 is defined as '*Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.*'

Potential Environmental Effects

a) ***No Impact.*** The Project would not impact the availability of mineral resources that are locally important or would be of value to the state.

b) ***No Impact.*** See response to item a).

5.2.14 Noise

XIII.NOISE—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project	☐	☐	☐	☒

expose people residing or working in the project area to excessive noise levels?				
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Environmental Setting

Noise is commonly defined as unwanted sound that annoys or disturbs people and potentially causes an adverse psychological or physiological effect on human health. Because noise is an environmental pollutant that can interfere with human activities, evaluation of noise is necessary when considering the environmental impacts of a project.

Noise sensitive land uses are land uses where people reside or locations where the presence of unwanted noise could adversely affect the use of the land. Noise sensitive land uses typically include residences, schools, hospitals, and churches. Recreational areas where quiet is an important part of the environment can also be considered sensitive to noise.

Land uses surrounding the proposed project site consist of residential, commercial and industrial land uses. Noise sensitive land uses are typically defined as residences, schools, institutions, places of worship, hospitals, care centers and hotels. Noise-sensitive land uses adjacent to the project sites include residential and educational.

The City of Stockton has established noise compatibility standards for various land uses in the Health and Safety (and Noise) Element of the 2035 City of Stockton General Plan (City of Stockton 2018a). The City of Stockton General Plan prohibits the development of new commercial, industrial, or other noise-generating land uses adjacent to existing residential uses, and other sensitive noise receptors such as schools, health care facilities, libraries, and churches if noise levels are expected to exceed 70 dBA Community Noise Equivalent (CNEL) measured at the property line of the noise sensitive land use.

Municipal Code Section 16.60.030 includes restrictions on construction noise. Operating or causing the operation of tools or equipment on private property used in alteration, construction, demolition, drilling, or repair work between the hours of 10:00 p.m. and 7:00 a.m., so that the sound creates a noise disturbance across a residential property line, is prohibited, except for emergency work of public service utilities. Construction activities within the daytime hours of 7:00 a.m. and 10:00 p.m. are considered to be exempt from the noise control provisions of the Municipal Code.

The City prepared a 'Construction Noise Technical Memorandum' for the Project that was approved by Caltrans on 9 November 2018 (Sycamore Environmental 2018a). The memorandum includes a discussion of the proposed Project, the physical setting of the Project, and provides data as applicable to construction noise. The memo concludes '*The Project is a Type III project as per 23 CFR 772. No further noise analysis is required and noise abatement need not be considered. The Project is exempt from Noise Standards in Chapter 16.60 of the Stockton Municipal Code because it is a construction operation on a public right-of-way. Project plans and specifications include provisions requiring the contractor to make every reasonable effort to minimize construction noise through abatement measures such as work-hour controls and maintenance of muffler systems.*'

Potential Environmental Effects

a) ***(Construction Noise) Less Than Significant Impact.*** Construction activities could increase noise levels temporarily in the vicinity of the Project. Actual noise levels would depend on the type of construction equipment involved, distance to the source of the noise, time of day, and similar factors. These increases would be temporary. Given that the Project contractor would adhere to applicable City construction-related noise standards, this impact considered less than significant.

(Operational Related Noise) No Impact. The proposed routine maintenance activities will not increase the capacity of the project roadways. The post project noise levels in the Project vicinity will be unchanged from the pre-project condition.

b) ***Less Than Significant Impact.*** Project construction includes activities, such as operation of large pieces of equipment (e.g., heavy trucks) which may result in the periodic, temporary generation of ground-borne vibration. The Project does not introduce new sources of ground-borne vibration. Given the nature of any potential ground-borne vibration and given that any impacts would be temporary and periodic, potential impacts are less than significant.

c) ***Less Than Significant Impact.*** See response to Item 'a' above.

d) ***Less Than Significant Impact.*** See response to Item 'a' above.

e) ***No Impact.*** The Project is not located within an airport land use plan area or within two miles of a public or public use airport. The Stockton Metropolitan airport is located approximately 2.33 miles southeast of the southernmost Project site (Turnpike Road over Walker Slough).

f) ***No Impact***. The Project is not located within the vicinity of a private airstrip.

5.2.15 Population and Housing

XIV. POPULATION AND HOUSING—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless 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)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Potential Environmental Effects

Environmental Setting

The Project includes conducting routine maintenance at six bridge locations in the City. The Project is not growth inducing, and does not include right of way acquisition or new housing.

a) ***No Impact.*** The routine maintenance of road and bridge structures in the City will not induce growth.

b) ***No Impact.*** The Project does not include any activities that would result in the displacement of housing or people.

c) ***No Impact.*** See response to item b).

5.2.16 Public Services

XV. PUBLIC SERVICES—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	☐	☐	☐	☒
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

Environmental Setting

The Project includes conducting routine maintenance at six bridge locations in the City.

Potential Environmental Effects

a) ***No Impact.*** The potential environmental impacts resulting from routine maintenance activities at the six locations within the City are evaluated in this document. No other new or physically altered governmental facilities would be needed.

5.2.17 Recreation

XVI. RECREATION:	*Potentially Significant Impact*	*Potentially Significant Unless 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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Environmental Setting

The Project includes conducting routine maintenance at six bridge locations in the City. The Project is not growth inducing, and does not include right of way acquisition or new housing.

The Calaveras River Bike Path bisects the Project area at the Lane Avenue and Pershing Street sites. A pedestrian/ bicycle trail occurs immediately south of the Santa Paula Way bridge. Loch Lomond Park occurs immediately southeast of the Santa Paula Way bridge.

Potential Environmental Effects

a) ***No Impact.*** The Project is not growth inducing. The Project would not increase the use of existing parks in the area and does not include the construction of any recreational facilities.

b) ***No Impact.*** See response to item a above.

5.2.18 Transportation/Traffic

XVII. TRANSPORTATION/TRAFFIC—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☐	☒
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☒	☐
f) Result in inadequate parking capacity?	☐	☐	☒	☐
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☒	☐	☐

Environmental Setting

The purpose of the Project is to preserve the City's road and bridge infrastructure by conducting routine bridge preventative maintenance activities with the objective of eliminating deficiencies including deck cracking, abrasion and scour on the columns, leaking joint seals, and railing deficiencies.

Potential Environmental Effects

a) ***No Impact.*** The Project would not change the amount of traffic on West Lane, Pershing Avenue, Diamond Street, Aurora Street, Santa Paula Way, or Turnpike Road, or other local roads because it is not a new development or growth inducing project. A temporary minor increase in traffic during Project construction could occur as the result of worker trips to the site and material delivery. Project construction activities would be coordinated with local law enforcement and emergency services providers as applicable.

b) ***No Impact.*** See response to Item a) above.

c) ***No Impact.*** The Project would not result in a change in air traffic patterns.

d) ***No Impact.*** The Project does not include features that introduce or exacerbate any transportation of traffic hazards due to a design feature.

e) ***Less Than Significant Impact.*** Construction will require temporary traffic closures. Project construction activities would be coordinated with local law enforcement and emergency services providers as applicable.

f) ***Less Than Significant Impact.*** Construction of the Project may temporary interrupt parking and circulation near the Project sites. The Project would not result in an increase in demand for parking in the vicinity of the Project. Any impacts to parking and circulation are considered less than significant due to their minimal nature and short duration.

g) ***Potentially Significant Unless Mitigation Incorporated.*** The Calaveras River Bike Path bisects the Project area at the Lane Avenue and Pershing Street sites. A pedestrian/ bicycle trail occurs immediately south of the Santa Paula Way bridge. The portions of the Calaveras River Bike Path pedestrian/ bicycle trail in the Project area may be temporarily closed during construction. This would be done as a safety precaution to limit the publics contact with construction activities. Implementation of mitigation measure TRANS-1 will reduce potential impacts to bicyclist and pedestrians to less than significant.

Mitigation Measure TRANS-1 (Calaveras River Bike Path, pedestrian/ bicycle trail)

- *Where construction results in temporary closures of sidewalks and other pedestrian facilities, the City shall provide temporary pedestrian access, through detours or safe areas along the construction zone. Where construction activity results in bike route or bike path closures, appropriate detours shall be defined. Signs shall be placed along the closed bike path a minimum of 7 days prior to bike path closure notifying bicyclists of the proposed construction activities and duration of bike path closure. Notifications posted along the bike path shall include the locations of detours and alternate routes to avoid conflicts with the construction area.*

5.2.19 Utilities/ Service Systems

XVIII. UTILITIES AND SERVICE SYSTEMS—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

Environmental Setting

Wastewater treatment and collection services in the City of Stockton are provided by the City. Sewage treatment services are provided at the City's Regional Wastewater Control Facility (RWCF), located on Navy Drive in Stockton. The Project does not require wastewater service.

Water purveyors in the Project area include the City of Stockton Municipal Utilities Department and the California Water Service Company. The Project does not require water service.

Stormwater drainage in the vicinity is managed by the City of Stockton. The project site is served by the City's stormwater collection system. The Project does not include activities that would affect the City's' stormwater collection system.

The City has two franchise haulers, Waste Management and Republic Services, that provide solid waste collection services (City of Stockton 2019). Solid waste from Stockton is taken to the Forward Landfill in Manteca or the North County Landfill in Lodi. During inclement weather, occasional loads are taken to the Lovelace Material Recovery Facility in Manteca. Solid waste from Lovelace is disposed at Foothill Landfill in Linden. Construction and demolition material and some commercial loads are processed at the East Stockton Transfer Station. Residuals from the East Stockton Transfer Station are disposed at Forward Landfill (City of Stockton 2018b).

Potential Environmental Effects

a) ***No Impact.*** The Project is routine maintenance at six bridge locations in the City. The Project does not include activities that will affect utilities or service systems.

b) ***No Impact.*** See response to item a.

c) ***No Impact.*** See response to item a.

d) ***No Impact.*** See response to item a.

e) ***No Impact.*** See response to item a.

f) ***No Impact.*** Solid waste generated by the Project would be limited to construction debris. Solid waste disposal would occur in accordance with federal, state, and local regulations. Disposal would occur at permitted landfills. Therefore, the Project would not generate the need for new solid waste facilities.

g) ***No Impact.*** The Project would conform to all applicable state and federal solid waste regulations.

5.2.20 Wildfire

XIX. WILDFIRE: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project;	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

Environmental Setting

The Project is not located in a Fire Hazard Severity Zone in the State Responsibility Area (SRA) per the 2007 CAL FIRE Fire Hazard Severity Zones in SRA maps. No portion of San Joaquin County is in a 'Very High Fire Hazard Severity Zone' (CAL FIRE 2019).

Potential Environmental Effects

a-d) ***No Impact.*** The Project is not located in a Fire Hazard Severity Zone in the State Responsibility Area (SRA) per the 2007 CAL FIRE Fire Hazard Severity Zones in SRA maps. No portion of San Joaquin County is in a 'Very High Fire Hazard Severity Zone' (CAL FIRE 2019).

5.2.21 Mandatory Findings of Significance

XX. MANDATORY FINDINGS OF SIGNIFICANCE (To be filled out by Lead Agency if required)	*Potentially Significant Impact*	*Potentially Significant Unless 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?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

a) ***Potentially Significant Unless Mitigation Incorporated.*** Through the use of Best Management Practices and the mitigation measures noted previously, the Project will not degrade the quality of the environment.

b) ***Less than Significant.*** The Project is consistent with the General Plan and would not result in individually limited but collectively significant impacts. Therefore, the project would not cause any additional environmental effects or significantly contribute to a cumulative impact.

c) ***Less than Significant.*** The Project would not result in substantial direct or indirect adverse effects from noise, either during project construction or operation, nor would it result in impacts to air quality, water quality or utilities and public services. Therefore, the Project would not cause substantial adverse effects on human beings.

6. Supporting Information Sources

6.1 Report Preparation

City of Stockton, Public Works Department, CEQA Lead Agency

Ahbid Mohammad	Associate Engineer

MGE

Wes Sennett, PE	Project Engineer

Sycamore Environmental Consultants, Inc.

Jeffery Little	Vice President
Leane Dunn, M.F.	Project Manager
Aramis Respall	CAD/GIS Analyst

6.2 References

California Department of Conservation. August 2000. A general location guide for ultramafic rocks in California – Areas more likely to contain naturally occurring asbestos. Division of Mines and Geology, open-file report 2000-19. ftp://ftp.consrv.ca.gov/pub/dmg/pubs/ofr/ofr_2000-019.pdf

California Department of Conservation. 1989. Special Report 160, Mineral Land Classification: Portland Cement Concrete-Grade Aggregate in the Stockton-Lodi Production-Consumption Region. Author: Laurel S. Jensen and Michael A. Silva

California Department of Conservation. Accessed July 2019 (2019b). Farmland Mapping and Monitoring Program. https://www.conservation.ca.gov/dlrp/fmmp/Pages/county_info.aspx

California Department of Conservation, California Geologic Survey. Accessed July 2019 (2019a). Earthquake Zones of Required Investigation Interactive Mapper. https://maps.conservation.ca.gov/cgs/EQZApp/

California Department of Conservation, California Geologic Survey. Accessed July 2019 (2019d). Fault Activity Map of California (2010), interactive web mapper. https://maps.conservation.ca.gov/cgs/fam/app/

California Department of Transportation (Caltrans). Accessed July 2019. California Scenic Highway Mapping System. http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm

California Department of Transportation (Caltrans). Last Revised 2 November 2012. Highway Design Manual, Chapter 610 Pavement Engineering Considerations.

California Department of Transportation (Caltrans). 2018a (Accessed July 2018). 2017 Water Quality Assessment Report Content and Recommended Format. http://www.dot.ca.gov/hq/env/stormwater/

California Department of Transportation (Caltrans). 2018b (Accessed July 2018). Revised Scoping Questionnaire for Water Quality Issues. http://www.dot.ca.gov/hq/env/stormwater/.

California Environmental Quality Act (CEQA) Statutes. 1970. Public Resources Code Section 21000, et seq.

California State Water Resources Control Board (SWRCB). Accessed July 2018 (2018b). Final 2014/2016 Integrated Report (Clean Water Act Section 303(d) List/305(b) Report), 1001 I Street, Sacramento, CA 95814. https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtml

California Regional Water Quality Control Board (RWQCB), Central Valley Region. July 2016. Water Quality Control Plan (Basin Plan) for the Central Valley Region.

CAL FIRE. Accessed July 2019. Recommended and Remaining Draft Local Responsibility Area (including Cities and other Local Agencies) Fire Hazard Severity Zone Maps and Adopted State Responsibility Area Fire Hazard Severity Zone Maps. https://osfm.fire.ca.gov/divisions/wildfire-prevention-planning-engineering/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/

City of Stockton. Adopted 4 December 2018 (2018a). Envision Stockton 2040 General Plan. Prepared by: Placeworks

City of Stockton. June 2018 (2018b). Envision Stockton 2040 General Plan Update and Utility Master Plan Supplements Draft EIR for the City of Stockton, Public Review. Prepared by: Placeworks

City of Stockton. Accessed July 2019. Landmaster Online. https://stocktonca.mapgeo.io/

Far Western Anthropological Research Group, Inc. 17 May 2018. Stockton Bridge Preventative Maintenance Program Cultural Resources Studies letter.

Federal Emergency Management Agency (FEMA). 16 October 2009. (Accessed July 2018) Flood Insurance Rate Map Numbers 06077C0470F, 06077C0460F, 06077C0455F, and 06077C0315F. https://msc.fema.gov/portal/home

Google, Inc. Accessed 2019. Google Earth (Version 7.1.2.2041) [Software]. Available from www.google.com/earth/

MGE Engineering, Inc. December 2017. Bridge Maintenance Recommendations Report Bridge Preventative Maintenance Project No. PW1603, BPMP-5008(157). Prepared for: City of Stockton, Public Works Department

Pinnacle Environmental Inc. 20 June 2019 (2019a). Initial Site Assessment of the Turnpike Road Bridge Over Walker Slough (Bridge #29c0399) Stockton, California 95206

20 June 2019 (2019b). Initial Site Assessment of the Pershing Avenue Bridge Over Calaveras River (Bridge #29C0243), Stockton, California 95206

21 June 2019 (2019c). Initial Site Assessment of the Santa Paula Way Bridge Over Mosher Slough (Bridge #29C0240), Stockton, California 95206

28 June 2019 (2019d). Initial Site Assessment of the Diamond Street Bridge Over Mormon Slough (Bridge #29C0238), Stockton, California 95206

28 June 2019 (2019e). Initial Site Assessment of the Aurora Street Bridge Over Mormon Slough (Bridge #29C0235), Stockton, California 95206

28 June 2019 (2019f). Initial Site Assessment of the West Lane Bridge Over Calaveras River (Bridge #29C0157L/R), Stockton, California 95206

Natural Resources Conservation Service (NRCS). Accessed July 2019. Web soil survey for City of Stockton. National Soil Survey Center, Lincoln, NE. https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

San Joaquin Council of Governments (SJCOG). 2000. San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP)

San Joaquin Council of Governments (SJCOG). Adopted June 2018. 2018 Regional Transportation Plan/Sustainable Communities Strategy.

Sycamore Environmental Consultants, Inc. 5 October 2018. Construction Noise Technical Memorandum.

Sycamore Environmental Consultants, Inc. April 2019 (2019a). Natural Environment Study, City of Stockton Bridge Rehabilitation Project, City of Stockton, CA

Sycamore Environmental Consultants, Inc. June 2019 (2019b). Biological Assessment, City of Stockton Bridge Rehabilitation Project, City of Stockton, CA

Sycamore Environmental Consultants, Inc. February 2019 (2019c). Biological Assessment Technical Memorandum.

Sycamore Environmental Consultants, Inc. February 2019 (2019d). Water Quality Assessment Memorandum.