

Draft

# **Hickman Road Bridge (38C-0004) over Tuolumne River Replacement Project**

Initial Study / Mitigated Negative Declaration



Prepared for:  
Stanislaus County  
Department of Public Works

October 2017

## Executive Summary

The California Environmental Quality Act (CEQA) (California Public Resources Code §21000 et seq.) and the State CEQA Guidelines (California Code of Regulations, Title 14, §15000 et seq.) requires that local government agencies consider the environmental consequences of such projects prior to taking action on projects requiring discretionary approval. An Initial Study/Mitigated Negative Declaration (IS/MND) is a public document designed to provide the public, responsible/trustee agencies, and other local and State governmental agencies with an analysis of the potential environmental consequences of a project's implementation.

Pursuant to Section 15367 of the State CEQA Guidelines, the Stanislaus County Department of Public Works is the Lead Agency for the Project. The Lead Agency is the public agency that has the principal responsibility for carrying out a project and also has the authority to approve the Project and its accompanying environmental documentation.

This IS/MND has been prepared in accordance with CEQA and the State CEQA Guidelines for the Hickman Road Bridge (38C-0004) over the Tuolumne River Replacement Project (Project). The IS/MND indicates that, while the Project would have potential environmental impacts, modifications and/or mitigation measures have been incorporated into the Project to reduce its adverse impacts to levels considered less than significant (Section 15070 of the State CEQA Guidelines).

### California Environmental Quality Act Process

This 2017 IS/MND and its associated technical appendices constitute a draft environmental document that has yet to undergo public review. A Notice of Intent to Adopt an MND (NOI) will be mailed to the State Clearinghouse and affected responsible and trustee agencies and interested organizations and individuals, and will be put on file at the Stanislaus County Registrar-Recorder/County Clerk in the City of Modesto. A summary of the NOI will be published in the local newspapers to announce the public review period. The IS/MND and associated technical reports will also be made available online for public review at <http://www.stancounty.com/publicworks/projects.shtm>. Hard copies will be available for public review during business hours at the Stanislaus County Department of Public Works (SCDPW) Headquarters (1716 Morgan Road, Modesto, California 95358) during business hours.

There will be a 30-day public review period for the IS/MND, in accordance with the requirements of Section 15073 of the State CEQA Guidelines. In reviewing the IS/MND, the reviewer should focus on the sufficiency of the document in identifying and analyzing the potential impacts on the environment and ways in which the potentially significant effects of the Project are avoided or lessened. Comments or questions on this IS/MND must be postmarked by 5:00 PM on November 22, 2017 and can be sent in writing by mail to the SCDPW at the address below; via email to [AHRARYS@stancounty.com](mailto:AHRARYS@stancounty.com); or by fax to (209) 541-2505. Please include "Hickman Road Bridge Replacement Project" in the subject line. Comments can be mailed to the following address:

Stanislaus County Department of Public Works  
1716 Morgan Road  
Modesto, California 95358  
Attn: Hickman Road Bridge Replacement Project

In accordance with Section 15074 of the State CEQA Guidelines, prior to approving the Project, the Stanislaus County Board of Supervisors (Board), acting as governing body of the SCDPW, will consider

the proposed IS/MND together with any comments received during the public review process. The Board will adopt the proposed MND only if it finds that there is no substantial evidence that the Project will have a significant effect on the environment and that the MND reflects the independent judgment and analysis of the Board.

## **Organization of the Initial Study/Mitigated Negative Declaration**

This IS/MND is organized into the following sections:

- **Introduction:** This section provides an introduction to the purpose of an IS/MND and the CEQA process; it also provides an outline of the IS/MND organization.
- **Environmental Setting and Project Description:** This section provides a description of the Project's location, the background and need for the Project; and Project's components, construction scenario, operational and maintenance needs; and required Project-related approvals.
- **Environmental Checklist Form:** The completed CEQA checklist form provides an overview of the potential impacts that may result from Project implementation. The environmental checklist form also includes "mandatory findings of significance", in accordance with CEQA requirements. This section contains the analysis of environmental impacts identified in the environmental checklist and identifies mitigation measures to eliminate potential significant effects or to reduce them to a less than significant level.

## **Project Location**

The project is located 0.15 miles south of State Route (SR) 132 near the town of Waterford in northern Stanislaus County. The general setting is urban with residential, recreational/open space, commercial retail, and public facility uses. The Project site is approximately 24 acres, and includes the existing Hickman Road Bridge, Tuolumne River, and River Park.

## **Project Overview**

The proposed Project would demolish and remove the existing 652.9 feet long, 33.5 feet wide bridge, and construct a new bridge designed to current structural and geometric standards while minimizing adverse impacts to the Tuolumne River and the surrounding riparian area. The replacement bridge will be constructed immediately upstream of the existing structure, in order to keep the existing road and bridge open to public traffic during construction. The new structure will be a 750-foot long cast-in-place (CIP) post-tensioned box-girder-bridge with two 12-foot-wide travel lanes, two 8-foot-wide shoulders, and one 5-foot wide sidewalk placed along the upstream edge.

Construction of the proposed project would involve constructing the new bridge adjacent to, and upstream of the existing bridge. All construction equipment staging and parking would be on site. Constructing the new bridge on an adjacent alignment will allow for the continued use of the existing bridge which experiences an average daily travel count (ADT) of approximately 8,000, minimizing the proposed projects impacts to circulation. Once the new bridge and roadway approaches are constructed traffic will be rerouted to the new structure and demolition of the existing structurally deficient

structure will commence. Construction of the proposed project would last for approximately 8 months, and would begin in spring 2019.

### **Summary of IS/MND Findings**

The analysis Environmental Checklist Form of the IS/MND evaluates the potential environmental impacts associated with Project implementation. Prior to mitigation, implementation of the Project would result in potentially significant impacts to Aesthetics, Biological Resources, Cultural Resources, Hazards and Hazardous Material, Hydrology and Water Quality, Noise, Public Services, and Recreation. Implementation of the mitigation measures (MM), as detailed below, would reduce all potentially significant impacts to a less than significant level.

According to Section 15370 of the State CEQA Guidelines, mitigation includes the following:

- Avoiding the impact altogether by not taking a certain action or parts of an action;
- Minimizing impacts by limiting the degree or magnitude of the action and its implementation;
- Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment;
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and
- Compensating for the impact by replacing or providing substitute resources or environments.

Pursuant to Section 15074(b) of the State CEQA Guidelines, it is appropriate to prepare an MND for the Project because, with incorporation of MMs, potentially significant environmental impacts would be eliminated or reduced to a less than significant level. The MMs identified for the Project are listed below.

### **Mitigation Measures**

Prior to implementation of mitigation, implementation of the Project would result in potentially significant impacts to Aesthetics, Biological Resources, Cultural Resources, Hazards and Hazardous Material, Hydrology and Water Quality, Noise, Public Services, and Recreation. Implementation of the MMs, as detailed the environmental analysis presented in the Environmental Checklist Form and presented in **Table 1**, Mitigation Program, below would reduce all potentially significant impacts to Aesthetics, Biological Resources, Cultural Resources, Hazards and Hazardous Material, Hydrology and Water Quality, Noise, Public Services, and Recreation to a less than significant level. MM AES-1, MM BIO-1 through MM Bio-10, MM CUL-1, MM CUL-2, MM HAZ-1 through MM HAZ-3, MM NOI-1, and MM PUB-1 would be included in the Contractor Specifications and bid documents, as appropriate, and verified as part of the Mitigation Monitoring and Reporting Program (MMRP), consistent with Section 15097 of the State CEQA Guidelines.

**Table 1**  
**Mitigation Program**

Potential Impact	Mitigation Measures	Timing	Responsible Party	Level of Significance After Mitigation
<b>Aesthetic</b>				
Substantially degrade the existing visual character or quality of the site and its surroundings	<p><b>Mitigation Measure AES-1.</b> The County will implement measures to avoid and minimize potential adverse effects on the visual character of the site and vicinity.</p> <ul style="list-style-type: none"> <li>• Incorporate designs, possibly architectural form liners, and concrete staining on the exterior girders and bridge railing to maintain the character of the existing bridge and the natural surroundings.</li> <li>• Revegetate and restore any disturbed areas with the appropriate native vegetation to minimize erosion and visual contrast with existing vegetation in compliance with Section 20, “Landscape” and Section 21 “Erosion Control” of the Caltrans Standard Specifications 2015.</li> <li>• Replace benches located along the trail to the same location without damages.</li> <li>• Any newly planted trees within the construction staging area will be hand dug and placed into planters during the winter months preceding construction. The trees will be irrigated and cared for by a qualified professional to ensure survival during construction. If the trees do not survive repotting prior to construction and/or replanting after construction is complete, they will be replaced at a 1:1 ratio.</li> </ul>	Prior to and during construction activities	SCDPW	Less than significant
<b>Biological Resources</b>				
Project implementation has the potential to impact special status aquatic/semi-aquatic and terrestrial species.	<p><b>Mitigation Measure BIO-1:</b> The County will implement measures to avoid and minimize potential adverse effects on special status species. Prior to conducting work and during work, the following measures will be implemented.</p> <ul style="list-style-type: none"> <li>• A qualified biologist will conduct environmental awareness training for all construction workers prior to construction workers beginning their work efforts on the project. The training shall include information on species identification, avoidance measures to be implemented by the project, and the regulatory requirements and penalties for noncompliance.</li> <li>• Ground disturbance and construction footprints will be minimized to the greatest degree feasible.</li> <li>• During construction, all trash that may attract predators will be properly contained, removed from the work area, and disposed of regularly. The County or its contractor will remove all trash and construction debris from the work area on a daily basis.</li> <li>• Vehicles or equipment would not be refueled within 100 feet of a wetland, stream or other waterway unless a bermed and lined refueling area is constructed.</li> <li>• Construction equipment would arrive at the project clean and free of soil, seed, and plant parts to reduce the likelihood of introducing new weed species.</li> </ul>	Prior to and during construction activities	SCDPW	Less than significant

**Table 1**  
**Mitigation Program**

Potential Impact	Mitigation Measures	Timing	Responsible Party	Level of Significance After Mitigation
	<ul style="list-style-type: none"> <li>To avoid entrapment of covered species and thereby preventing injury or mortality of species resulting from falling into trenches, all construction holes or trenches deeper than 6 inches would be provided with one or more escape ramps constructed of earth fill or wooden planks at the end of each workday. If escape ramps cannot be provided, then holes or trenches would be covered with plywood or other hard material. Additionally, any pipes, culverts, or similar materials greater than 4 inches in diameter would be capped or stored at the end of each day, so as to prevent listed species from using these as temporary refuges, and becoming trapped or otherwise negatively affected.</li> <li>Any worker who inadvertently injures or kills a federally-listed species or finds one dead, injured, or entrapped would immediately report the incident to the construction foreman or the biological monitor. The construction foreman or monitor would immediately notify the County, which would provide verbal notification to the USFWS Endangered Species Office in Sacramento, California. The County would follow up with written notification to USFWS within 3 working days of the incident. The biological monitor would also independently notify USFWS of any unanticipated harm to any federal listed endangered species associated with the proposed action. All observations of federal listed species would be recorded on CNDDB field sheets and sent to CDFW by the County or a representative biological monitor.</li> </ul>			
Project implementation has the potential to impact special status aquatic/semi-aquatic species.	<p><b>Mitigation Measure BIO-2:</b> The County shall complete and/or ensure that the construction contractor implements the following special status fish avoidance/compensation measures:</p> <ul style="list-style-type: none"> <li>To avoid and minimize water quality impacts associated with a dewatering plan (should it be required), site preparation and dewatering activities will occur from June 15<sup>th</sup> to September 30<sup>th</sup>. This is a period of the year when NOAA Fisheries' Endangered Species Act (ESA) listed species are least likely to occur in the project area.</li> <li>Prior to dewatering, a qualified fisheries biologist will design and conduct a fish and wildlife rescue and relocation effort to collect fish and other wildlife species from the area within the dewatering area involving the capture and return of those animals to suitable habitat within the Tuolumne River. To ensure compliance, a fisheries biologist will provide observation during initial dewatering activities. The fish rescue plan will be approved by NOAA Fisheries, and CDFW prior to dewatering activities.</li> <li>An approved biologist will permanently remove, from within the project site, any exotic wildlife species, such as bullfrogs and crayfish, to the extent possible.</li> <li>After construction activities are finalized, the stream channel will be restored to preconstruction conditions.</li> </ul>	Prior to and during construction activities	SCDPW	Less than significant

**Table 1**  
**Mitigation Program**

Potential Impact	Mitigation Measures	Timing	Responsible Party	Level of Significance After Mitigation
	<ul style="list-style-type: none"> <li>The County will mitigate for the temporary (0.18 acres) and permanent (0.05 acres) loss of riparian habitat through the purchase of mitigation credits from a CDFW-approved mitigation bank at a ratio of 3:1 as determined by NOAA Fisheries and CDFW.</li> <li>To compensate for permanent impacts on jurisdictional waters, the County will purchase credits from a U.S Army Corps of Engineers (Corps) and/or CDFW approved mitigation bank at a minimum 1:1 ratio (one acre of habitat replaced for every one acre filled).</li> <li>If gabion mats or other bank stabilization methods are placed on the stream bank, use a soil-rock mixture to facilitate re-vegetation of the project site. A ratio of rock to soil (70:30) is recommended. NOAA Fisheries suggests a soil-rock mixture on top of the rock revetment to allow native riparian vegetation to be planted to ensure shaded riverine aquatic (SRA) habitat is replaced.</li> </ul>			
Project implementation has the potential to impact special status aquatic/semi-aquatic species.	<b>Mitigation Measure BIO-3a:</b> No more than two weeks prior to the commencement of ground-disturbing activities, the County shall retain a qualified biologist to perform surveys for western spadefoot, and western pond turtle within suitable aquatic and upland habitat within the Project site. Surveys will be conducted to locate the presence of western spadefoot and western pond turtle as well as western pond turtle nests. The biologist (with the appropriate scientific collecting permit issued by CDFW) will temporarily move any identified western spadefoot or western pond turtles upstream of the construction area, and temporary barriers will be placed around the construction area to prevent ingress. Construction will not proceed until the work area is determined to be free of spadefoot and turtles and their nests. The results of these surveys will be documented in a technical memorandum that will be submitted to CDFW (if frogs or turtles are documented). If the pre-construction surveys identify western pond turtle nests within areas that may be affected by site construction, species avoidance measures shall occur through implementation of Mitigation Measure BIO-5b.	No more than two weeks prior to ground-disturbing activities	SCDPW	Less than significant
Project implementation has the potential to impact special status aquatic/semi-aquatic species.	<b>Mitigation Measure BIO-3b:</b> Should a western pond turtle nest be located within a work area, the County shall ensure that a qualified biologist (with the appropriate scientific collecting permit issued by CDFW) relocate the eggs to a suitable facility for incubation and release hatchlings into the creek system in late fall. The biologist will be present on the project area during initial ground clearing, grading, and during all other construction activities.	Prior to and during ground-disturbing activities	SCDPW	Less than significant

**Table 1**  
**Mitigation Program**

Potential Impact	Mitigation Measures	Timing	Responsible Party	Level of Significance After Mitigation
Project implementation has the potential to impact special status terrestrial species.	<p><b>Mitigation Measure BIO-4:</b> The following avoidance and minimization measures should reduce potential impacts to VELB, in accordance with the USFWS Framework for Assessing Impacts to Valley Elderberry Longhorn Beetle (VELB Framework), dated May 2017:</p> <ul style="list-style-type: none"> <li>• A qualified biologist shall survey for elderberry shrubs within 100 feet of the project footprint. Data to be collected shall include signs of VELB exit holes, type of habitat where the shrub is located, and associated native species. Once the final limits of construction are set, highly visible ESA fencing shall be installed at the 20-foot setback around the perimeter of each elderberry plant or plant group. ESA fencing shall consist of highly visible construction fencing or equivalent, and shall be maintained until construction is complete. A qualified biologist shall be present during the installation of fencing.</li> <li>• Employee awareness training shall be provided for the contractor to emphasize the need to avoid damaging elderberry plants and the possible penalties for not complying with these requirements.</li> <li>• A qualified biologist shall periodically inspect the construction area to assure that the Project is not affecting any elderberry plants.</li> <li>• Herbicides will not be used within the drip-line of the shrub. Insecticides will not be used within 30 meters (98 feet) of an elderberry shrub. All chemicals will be applied using a backpack sprayer or similar direct application method. Any damage occurring within the elderberry buffer areas (within 100 feet of the elderberry plants) shall be restored and revegetated with appropriate native species at the completion of construction.</li> <li>• As much as feasible, all activities that would occur within 50 meters (165 feet) of an elderberry shrub, would be conducted outside of the flight season of the VELB (March - July).</li> <li>• Mechanical weed removal within the drip-line of the shrub will be limited to the season when adults are not active (August - February) and will avoid damaging the elderberry.</li> <li>• If a minimum 20-foot setback from the dripline of all elderberry plants in the BSA cannot be maintained for all Project activities, USFWS shall be contacted and additional mitigation measures may be required.</li> <li>• To compensate for impacts to VELB habitat, the County will either plant 7 elderberry seedlings, as well as 5 associated native plant replacements or purchase credits through an approved mitigation bank. Credit purchase will be based on a one credit to 10 plantings ratio, rounded up to the nearest credit (i.e. the purchase of 2 credits would be required).</li> </ul>	Prior to and during construction activities	SCDPW	Less than significant
Project implementation	<p><b>Mitigation Measure BIO-5:</b> Prior to construction, surveys shall be conducted by a qualified biologist to determine presence/absence of burrowing owls and/ or occupied burrows in and within 500 feet of the PIA according to the</p>	Prior to construction	SCDPW	Less than



**Table 1**  
**Mitigation Program**

Potential Impact	Mitigation Measures	Timing	Responsible Party	Level of Significance After Mitigation
has the potential to impact special status terrestrial species	<p>2012 CDFW Staff Report on Burrowing Owls. If presence is confirmed, during that same year a winter survey will be conducted between December 1 and January 31 and a nesting survey will be conducted between April 15 and July 15. Preconstruction surveys will also be conducted within 30 days prior to construction to ensure that no additional burrowing owls have established territories since the initial surveys. If no burrowing owls are found during any of the surveys, no further mitigation will be necessary. If burrowing owls are found, then the following measures shall be implemented prior to the commencement of construction:</p> <ul style="list-style-type: none"> <li>During the non-breeding season (September 1 through January 31) burrowing owls occupying the PIA should be evicted from the PIA by passive relocation as described in the Staff Report on Burrowing Owls (CDFW 2012).</li> <li>During the breeding season (February 1 through August 31) occupied burrows shall not be disturbed and shall be provided with a 250 feet protective buffer unless a qualified biologist approved by CDFW verifies through non-invasive means that either: 1) the birds have not begun egg laying, or 2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. Once the fledglings are capable of independent survival, the burrow can be destroyed.</li> </ul>	activities		significant
Project implementation has the potential to impact special status terrestrial species	<p><b>Mitigation Measure BIO-6:</b> Prior to construction, surveys will be conducted by a qualified biologist to determine presence/absence of nesting Swainson's hawk in and within 0.50 miles of the BSA according to the <i>Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley</i> (Swainson's Hawk Technical Advisory Committee 2000). If no Swainson's hawks are found during any of the surveys, no further mitigation will be necessary. If Swainson's hawk nests are found, CDFW will be consulted regarding measures to reduce the likelihood of forced fledging of young or nest abandonment by adult birds. These measures will likely include, but are not limited to, the establishment of a no-work zone around the nest until the young have fledged as determined by a qualified biologist.</p>	Prior to construction activities	SCDPW	Less than significant
Project implementation has the potential to impact special status terrestrial species	<p><b>Mitigation Measure BIO-7a:</b> The following avoidance and minimization measures shall be used when work occurs on or in the vicinity of structures that may be subject to nesting by yellow-breasted chat and other migratory birds.</p> <ul style="list-style-type: none"> <li><b>Avoid Active Nesting Season.</b> To avoid and minimize impacts to tree and shrub nesting species, the following measures would be implemented; <ul style="list-style-type: none"> <li>If feasible, conduct all tree and shrub removal and grading activities during the non-breeding</li> </ul> </li> </ul>	Prior to and during construction activities	SCDPW	Less than significant

**Table 1**  
**Mitigation Program**

Potential Impact	Mitigation Measures	Timing	Responsible Party	Level of Significance After Mitigation
	<p>season (generally September 1 through January 31).</p> <ul style="list-style-type: none"> <li>○ If grading and tree removal activities are scheduled to occur during the breeding and nesting season (February 1 through August 31), pre-construction surveys would be performed prior to the start of Project activities.</li> <li>● <b>Conduct Pre-construction Nesting Bird Surveys.</b> If construction, grading or other Project-related activities are schedule during the nesting season (February 1 to August 31), preconstruction surveys for other migratory bird species would take place no less than 14 days and no more than 30 days prior to the beginning of construction within 250 feet of suitable nesting habitat. <ul style="list-style-type: none"> <li>○ If the pre-construction surveys do not identify any nesting migratory bird species within areas potentially affected by construction activities, no further mitigation would be required. If the pre-construction surveys do identify nesting bird species within areas that may be affected by site construction, the following measures would be implemented.</li> </ul> </li> <li>● <b>Avoid Active Bird Nest Sites.</b> Should active nest sites be discovered within areas that may be affected by construction activities, additional measures would be implemented as described below: <ul style="list-style-type: none"> <li>○ If active nests are found, Project-related construction impacts would be avoided by establishment of appropriate no-work buffers to limit Project-related construction activities near the nest site. The size of the no-work buffer zone would be determined in consultation with the DFW although a 500-foot would be used when possible. The no-work buffer zone would be delineated by highly visible temporary construction fencing. In consultation with DFW, monitoring of nest activity by a qualified biologist may be required if the Project-related construction activity has potential to adversely affect the nest or nesting behavior of the bird. No Project-related construction activity would commence within the no-work buffer area until a qualified biologist and DFW confirms that the nest is no longer active.</li> </ul> </li> </ul>			

**Table 1**  
**Mitigation Program**

Potential Impact	Mitigation Measures	Timing	Responsible Party	Level of Significance After Mitigation
Project implementation demolition of the existing bridge has the potential to impact special status terrestrial species	<p><b>Mitigation Measure BIO 7b:</b> The following avoidance and minimization measures shall be incorporated for bridge-nesting birds if bridge demolition or construction of the new bridge occurs during the nesting season (February 1 to August 31). Exclusionary netting shall be installed around the undersides of the existing bridge before February 1 of the construction year to prevent new nests from being formed, and/or prevent the reoccupation of existing nests. Exclusionary netting may also be required during construction of the new bridge if it is completed during the breeding season. The construction contractor would do the following:</p> <ul style="list-style-type: none"> <li>• Adhere to all state and federal laws and regulations pertaining to the protection of migratory birds, their nests, and young birds.</li> <li>• Remove all existing unoccupied nests on the bridge during the non-nesting season (September 1-January 31).</li> <li>• Keep the bridge free of nests, using exclusionary netting or other approved methods, until completion of construction activities.</li> <li>• Inspect all listed structures for nesting activity a minimum of three days per week; no two days of inspection would be consecutive. A weekly log would be submitted to the Project biologist. The contractor would continue inspections until bridge removal and completion of construction on new bridge. If an exclusion device were found to be ineffective or defective, the contractor would complete repairs to the device within 24 hours. If birds were found trapped in an exclusion device, the contractor would immediately remove the birds in accordance with USFWS guidelines.</li> <li>• Submit for approval working drawings or written proposals of any exclusion devices, procedures, or methods to the Project biologist before installing them.</li> <li>• The method of installing exclusion devices would not damage permanent features of the new bridge structure. Approval by the Project biologist of the working drawings or inspection performed by the authorized Project biologist would in no way relieve the contractor of full responsibility for deterring nesting.</li> </ul>	Prior to and during construction and demolition activities	SCDPW	Less than significant
Project implementation and demolition of the existing bridge has the	<p><b>Mitigation Measure BIO-8:</b> A bat survey shall be conducted by a qualified biologist to inspect the underside of the existing bridge for roosting bats prior to demolition. If no roosting bats are found, no further mitigation would be necessary. If pallid bats or other bat species are detected within the roost at the time of the survey, excluding any bats from roosts will be accomplished by a qualified biologist prior to demolition of the bridge. The timing and other methods of exclusionary activities will be developed by the qualified biologist in order to reduce the stress</p>	Prior to and during construction and demolition	SCDPW	Less than significant

**Table 1**  
**Mitigation Program**

Potential Impact	Mitigation Measures	Timing	Responsible Party	Level of Significance After Mitigation
potential to impact special status terrestrial species	on the bats to the amount feasible while taking into account project schedule. Exclusionary devices, such as plastic sheeting, plastic or wire mesh, can be used to allow for bats to exit but not re-enter any occupied roosts. Expanding foam and plywood sheets can be used to prevent bats from entering unoccupied roosts.	activities		
Project implementation has the potential to impact riparian habitat, the Tuolumne River, and tree preservation policies.	<p><b>Mitigation Measure BIO-9:</b> The County shall implement the following riparian habitat avoidance and compensation measures:</p> <ul style="list-style-type: none"> <li>• Prior to removal of any trees, an ISA Certified Arborist will conduct a tree survey in areas that may be impacted by construction activities. This survey will document tree resources that may be adversely impacted by implementation of the proposed project. The survey will follow standard professional practices.</li> <li>• Current riparian vegetation and oaks will be retained to extent feasible. A Tree Protection Zone (TPZ) will be established around any tree or group of trees to be retained. The TPZ will be delineated by an ISA Certified Arborist. The TPZ will be defined by the radius of the dripline of the tree(s) plus one foot. The TPZ of any protected trees will be demarcated using fencing that will remain in place for the duration of construction activities.</li> <li>• Construction-related activities will be limited within the TPZ to those activities that can be done by hand. No heavy equipment or machinery will be operated within the TPZ. Grading will be prohibited within the TPZ. No construction materials, equipment, or heavy machinery will be stored within the TPZ.</li> <li>• To ensure that there is no net loss of riparian habitat, the County will create or restore riparian habitat that is of a like function and value to the habitats lost. The permanent degradation of riparian habitat will be compensated for at a 3:1 ratio through the purchase of similar habitat value from a CDFW-approved conservation bank. Compensation will take the form of riparian preservation or creation in accordance with CDFW mitigation requirements, as required under project permits. Preservation and creation may occur onsite through a conservation agreement or offsite through purchasing credits at a Corps approved mitigation bank.</li> <li>• This mitigation will include compensation for the loss of riparian habitat and will include the planting of valley foothill/floodplain/ mixed riparian as appropriate. The planting plan will be implemented as detailed in a Restoration Plan approved by CDFW. The plan will includes performance standards for</li> </ul>	Prior to and during construction activities	SCDPW	Less than significant

**Table 1**  
**Mitigation Program**

Potential Impact	Mitigation Measures	Timing	Responsible Party	Level of Significance After Mitigation
	<p>revegetation that will ensure successful restoration of the riparian areas.</p> <ul style="list-style-type: none"> <li>The County will replace any trees removed to ensure no net loss of habitat functions or values. All trees planted will be purchased from a locally adapted genetic stock obtained within 50 miles of the project site, where feasible. All species will be replaced at a 1:1 ratio.</li> <li>The County will protect other wetlands, riverine and associated riparian habitats located in the vicinity of the project site by installing protective fencing. Protective fencing will be installed along the edge of construction areas including temporary and permanent access roads where construction will occur within 200 feet of the edge of wetland and riverine habitat (as determined by a qualified biologist). The location of fencing will be marked in the field with stakes and flagging and shown on the construction drawings. The construction specifications will contain clear language that prohibits construction-related activities, vehicle operation, material and equipment storage, trenching, grading, or other surface-disturbing activities outside of the designated construction area. Signs will be erected along the protective fencing at a maximum spacing of one sign per 50 feet of fencing. The signs will state: "This area is environmentally sensitive; no construction or other operations may occur beyond this fencing. Violators may be subject to prosecution, fines, and imprisonment." The signs will be clearly readable at a distance of 20 feet, and will be maintained for the duration of construction activities in the area.</li> <li>Where riparian vegetation occurs along the edge of the construction area, the County will minimize the potential for long-term loss of riparian vegetation by trimming vegetation rather than removing the entire plant. Trimming will be conducted per the direction of a biologist and/or Certified Arborist.</li> </ul>			
Project implementation has the potential to impact special status aquatic/semi-aquatic species, waters of the US, water quality, riparian habitat,	<p><b>Mitigation Measure BIO-10:</b> The County will ensure that the project contractor complies with the requirements of a National Pollution Discharge Elimination System (NPDES) permit from the Regional Water Quality Control Board (RWQCB), Central Valley Region. As part of the permit, the contractor would be required to prepare and implement a SWPPP into their construction plans, prior to initiating construction activities, identifying BMPs to be used to avoid or minimize any adverse effects before, during, and after construction to surface waters. The following BMPs will be incorporated into the project as part of the construction specifications:</p> <ul style="list-style-type: none"> <li>Implement appropriate measures to prevent debris, soil, rock, or other material from entering the water. Use a water truck or other appropriate measures to control dust on applicable access roads, construction areas, and stockpiles.</li> <li>Properly dispose of oil or other liquids.</li> </ul>	Prior to and during construction activities	SCDPW	Less than significant

**Table 1**  
**Mitigation Program**

Potential Impact	Mitigation Measures	Timing	Responsible Party	Level of Significance After Mitigation
and the Tuolumne River.	<ul style="list-style-type: none"> <li>Fuel and maintain vehicles in a specified area that is designed to capture spills. All fueling and maintenance of vehicles and other equipment (including staging areas), will be located at least 20 meters from Indian Creek and any other drainages on site.</li> <li>Fuels and hazardous materials would not be stored on site.</li> <li>Inspect and maintain vehicles and equipment to prevent the dripping of oil or other fluids.</li> <li>Schedule construction to avoid the rainy season as much as possible. Ground disturbance activities are expected to begin in the spring/summer of 2016. If rains are forecasted during construction, additional erosion and sedimentation control measures would be implemented.</li> <li>Maintain sediment and erosion control measures during construction. Inspect the control measures before, during, and after a rain event.</li> <li>Train construction workers in storm water pollution prevention practices.</li> <li>Revegetate disturbed areas in a timely manner to control erosion.</li> </ul>			
<b>Cultural Resources</b>				
Construction and ground-disturbing activities may encounter historical, archeological, and/or paleontological resources.	<p><b>Mitigation Measure CUL-1:</b> If buried cultural materials are encountered during construction, it is Caltrans' policy that work stop in that area until a qualified archaeologist can evaluate the nature and significance of the find. Additional survey will be required if the proposed project changes to include areas not previously surveyed.</p> <p>The need for archaeological and Native American monitoring during the remainder of the project will be re-evaluated by the archaeologist as part of the treatment determination. The archaeologist shall consult with appropriate Native American representatives in determining appropriate treatment for unearthed cultural resources if the resources are prehistoric or Native American in nature.</p> <p>In considering any suggested mitigation proposed by the archaeologist in order to mitigate impacts to cultural resources, the project proponent will determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is infeasible, other appropriate measures (e.g., data recovery) will be instituted.</p>	During ground-disturbing activities upon the discovery of buried cultural materials	SCDPW	Less than significant

**Table 1**  
**Mitigation Program**

Potential Impact	Mitigation Measures	Timing	Responsible Party	Level of Significance After Mitigation
Construction and ground-disturbing activities may encounter human remains.	<b>Mitigation Measure CUL-2:</b> If buried cultural materials are encountered during construction, it is Caltrans' policy that work stop in that area until a qualified archaeologist can evaluate the nature and significance of the find. In the event that human remains are encountered during construction, all work will cease within the vicinity of the discovery. In accordance with the California Environmental Quality Act (CEQA) (Section 1064.5) and the California Health and Safety Code (Section 7050.5), the county coroner will be contacted immediately. If the human remains are determined to be Native American, the coroner will notify the Native American Heritage Commission, who will notify and appoint a Most Likely Descendent (MLD). The MLD will work with a qualified archaeologist to decide the proper treatment of the human remains and any associated funerary objects.	During ground-disturbing activities upon the discovery of human remains	SCDPW	Less than significant
<b>Hazards and Hazardous Materials</b>				
Construction activities involve reasonably foreseeable upset and accident conditions that may subject the public and environment to the release of hazardous materials	<b>Mitigation Measure HAZ-1:</b> For asbestos containing materials (ACMs), the contractor will conduct National Emission Standards for Hazardous Air Pollutants (NESHAP) compliance testing as part of the project startup.	Prior to demolition activities	SCDPW	Less than significant
Construction activities involve reasonably	<b>Mitigation Measure HAZ-2:</b> During construction, building materials associated with the pavement striping yellow paint and painted areas on the existing bridge structure will be abated by a California Licensed abatement	During demolition	SCDPW	Less than significant

**Table 1**  
**Mitigation Program**

Potential Impact	Mitigation Measures	Timing	Responsible Party	Level of Significance After Mitigation
foreseeable upset and accident conditions that may subject the public and environment to the release of hazardous materials	contractor and disposed of as a hazardous waste.	activities		
Construction activities involve reasonably foreseeable upset and accident conditions that may subject the public and environment to the release of hazardous materials	<b>Mitigation Measure HAZ-3:</b> A Health and Safety Plan (HASP) shall be developed for the proposed project. The HASP shall describe appropriate procedures to follow in the event that any contaminated soil or groundwater is encountered during construction activities. Any unknown substances shall be tested, handled and disposed of in accordance with appropriate federal, state and local regulations.	Prior to and during construction and demolition activities.	SCDPW	Less than significant
<b>Noise</b>				
Construction and demolition activities would generate temporary	<b>Mitigation Measure NO-1:</b> During construction, the noise level may be temporarily elevated. To minimize the impact, all construction in or adjacent to residential areas shall follow the following procedures for noise control: Construction operations shall be limited to Monday through Friday, 7:00 AM to 8:00 PM. The following control measures shall be implemented in order to minimize noise and vibration disturbances at sensitive receptors during periods of construction	During construction and demolition	SCDPW	Less than significant



**Table 1**  
**Mitigation Program**

Potential Impact	Mitigation Measures	Timing	Responsible Party	Level of Significance After Mitigation
ambient and ground borne noise in excess of applicable standards and in excess of existing levels.	<ul style="list-style-type: none"> <li>Use newer equipment with improved muffling and ensure that all equipment items have the manufacturers' recommended noise abatement measures, such as mufflers, engine enclosures, and engine vibration isolators intact and operational. Newer equipment will generally be quieter in operation than older equipment. All construction equipment should be inspected at periodic intervals to ensure proper maintenance and presence of noise control devices (e.g., mufflers and shrouding, etc.).</li> <li>Utilize construction methods or equipment that will provide the lowest level of noise and ground vibration impact such as alternative low noise pile installation methods.</li> <li>Turn off idling equipment.</li> </ul>	activities.		
<b>Public Services</b>				
Project implementation has the potential to impact the Tuolumne River Parkway.	<p><b>Mitigation Measure PUB-1:</b> The County will implement measures to avoid and minimize potential impacts on the Tuolumne River Parkway. Prior to conducting work and during work, the following measures will be implemented:</p> <ul style="list-style-type: none"> <li>Determine an area of restoration mitigation</li> <li>Remove non-native species from the determined area and replace them with native species at a determined ratio</li> <li>The Contractor shall install signage along the temporary occupancy area notifying that the area will be temporarily closed during construction activities.</li> <li>Any newly planted trees within the construction staging area will be hand dug and placed into planters during the winter months preceding construction. The trees will be irrigated and cared for by a qualified professional to ensure survival during construction. If the trees do not survive repotting prior to construction and/or replanting after construction is complete, they will be replaced at a 1:1 ratio.</li> </ul>	Prior to and during construction activities.	SCDPW	Less than Significant

## Conclusion

The existing Hickman Road bridge was last inspected by Caltrans in 2013 and has a sufficiency rating (SR) of 64.7 out of a possible score of 100, and is classified as Structurally Deficient (SD). The Hickman Road over Tuolumne River Bridge Replacement Project would construct a replacement bridge adjacent to, and upstream of the existing bridge, reroute traffic along Hickman Road to the new bridge, and then demolish the existing structurally deficient structure. Construction of the Project would begin in the Spring of 2019 and last for approximately 8 months; construction activities would be limited to between the hours of 7:00 AM and 8:00 PM on Monday through Friday. Implementation of the Mitigation Measures discussed above for Aesthetics, Biological Resources, Cultural Resources, Hazards and Hazardous Material, Noise, and Public Services would be included in the specifications and bid documents, as appropriate, verified as part of the MMRP, and reduce all potentially significant impacts of the Hickman Road over Tuolumne River Bridge Replacement Project to a less-than-significant level.

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# INITIAL STUDY / MITIGATED NEGATIVE DECLARATION

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## Proposed Project

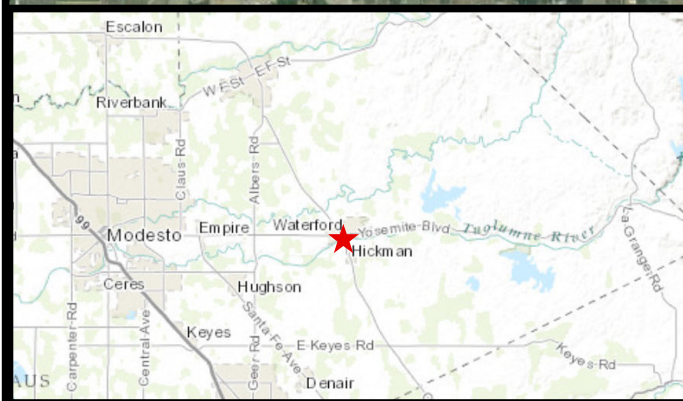
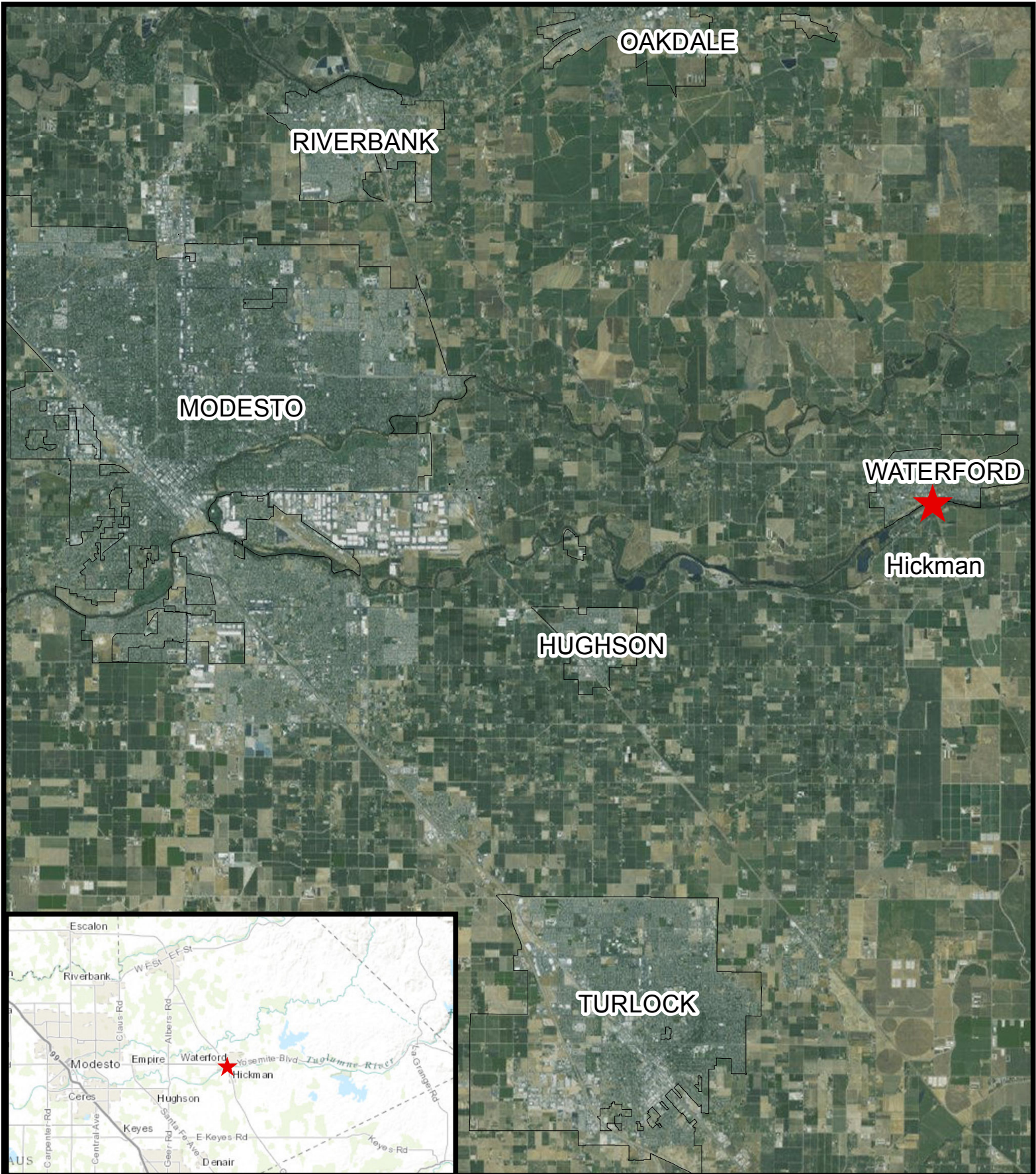
1. **Project Title:** Hickman Road Bridge (38C-0004) over the Tuolumne River Replacement Project
2. **Lead Agency Name and Address:** Stanislaus County Department of Public Works
3. **Contact Person and Phone Number:** Shoaib Ahrary, Project Manager  
(209) 525-4133
4. **Project Location:** 0.15 miles south of State Route 132 near the town of Waterford in northern Stanislaus County
5. **Project Sponsor's Name and Address:** Parminder Singh  
Department of Public Works, District 10  
1976 E. Charter Way,  
Stockton, CA 95201
6. **General Plan Designation(s):** General Agriculture 40 Acres (Stanislaus County), Public / Government (City of Waterford)
7. **Zoning Designation(s):** General Agricultural (Stanislaus County), Public Community District, Public/Semipublic (City of Waterford)

## Introduction

Stanislaus County (County) Department of Public Works proposes to replace the existing bridge on Hickman Road over Tuolumne River (Bridge No. 38C-0004) located 0.15 mile south of State Route 132 near the town of Waterford in northern Stanislaus County (**Figure 1, 2, and 3**). The general setting is urban with recreational, commercial retail, and public facility uses. The bridge currently carries vehicular traffic over Tuolumne River.

The project is funded primarily by the federal-aid Highway Bridge Program (HBP) administered by the Federal Highway Administration (FHWA) through Caltrans Local Assistance. The replacement bridge will meet current applicable County, American Association of State Highway and Transportation Officials (AASHTO), and Caltrans design criteria and standards.





**Project Location**

0 1.25 2.5 5 Miles







**Proposed Bridge**

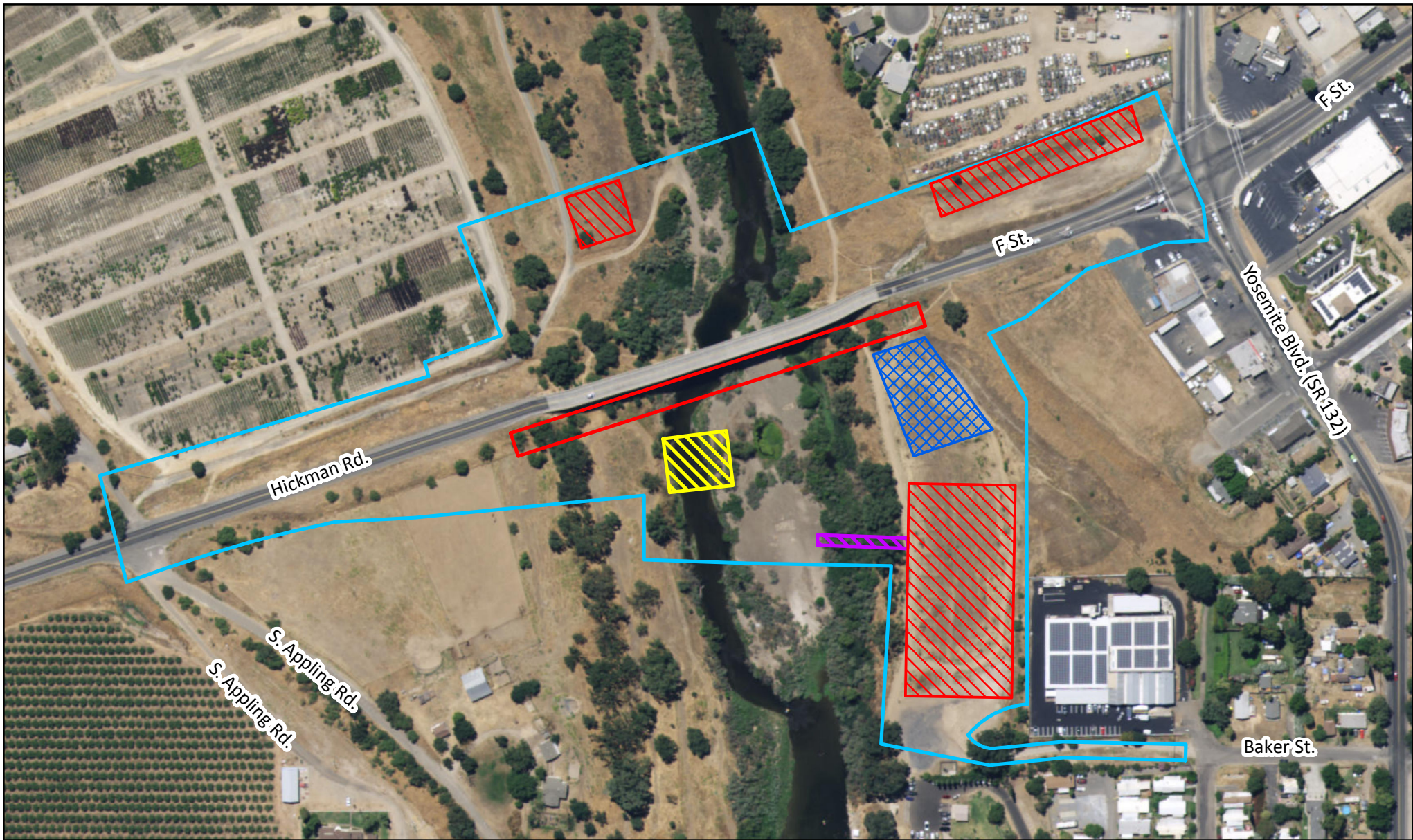








**Proposed Road Alignment**



0 250 500  
Feet





- |                                                                                                       |                                                                                                  |                                                                                                                   |
|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
|  Project Extent     |  Crane Pad    |  Access Ramp Trestle           |
|  Replacement Bridge |  Staging Area |  Work Trestle Low Flow Channel |





## **Project Purpose and Need**

The existing Hickman Road bridge was last inspected by Caltrans in 2013 and has a sufficiency rating (SR) of 64.7 out of a possible score of 100, and is classified as Structurally Deficient (SD). In addition, the existing bridge is deemed “Scour Critical” with a scour rating of 3, meaning that the local scour and predicted future degradation will continue to undermine the bridge supports.

The purpose of this project is to remove the existing structurally deficient structure and replace it with a new bridge designed to current structural and geometric standards while minimizing adverse impacts to the Tuolumne River and the surrounding riparian area.

## **Project Description**

### ***Existing Conditions***

Constructed in 1946, the existing Hickman Road over Tuolumne River Bridge is a reinforced concrete (RC) box girder on RC solid pier walls and RC wing abutments supported by steel piles. The bridge is 652.9 feet long, 33.5 feet wide, and within the existing 175 to 200 feet public right-of-way. The curb-to-curb width is 27.9 feet, with two 12-foot-wide travel lanes and two 2-foot-wide shoulders. The bridge is classified as SD and Scour Critical. The Caltrans bridge inspection report identifies the following major deficiencies:

- The bridge deck has 12 to 16 inch long transverse and pattern cracks throughout.
- There are several edge spalls of up to 3 feet long by 4 inch wide and 1 inch deep along the right curb in Span 4.
- There is an erosion gully of approximately 3 feet wide by 5 feet deep along the right slope embankment at Abutment 8 due to roadway runoff.
- The scour protection at Piers 4 and 5 has deteriorated in front and at the upstream right side of the footing with up to 6 feet wide sections missing.
- Settlement and displacement has been observed at Piers 4 and 5.

### ***Proposed Conditions***

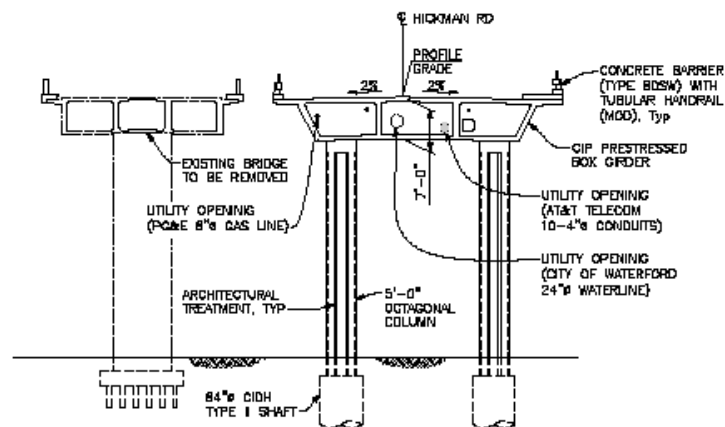
The replacement bridge will consist of a 750-foot long cast-in-place (CIP) post-tensioned box girder with two 12-foot-wide travel lanes and two 8-foot-wide shoulders and one 5-foot wide sidewalk placed along the upstream edge (**Figure 4**). The replacement bridge will be constructed immediately upstream of the existing structure, in order to keep the existing road and bridge open to public traffic during construction. The new upstream road alignment will transition and connect back to the existing Hickman Road alignment using a design speed of 45 mph.

### ***Utility Relocation***

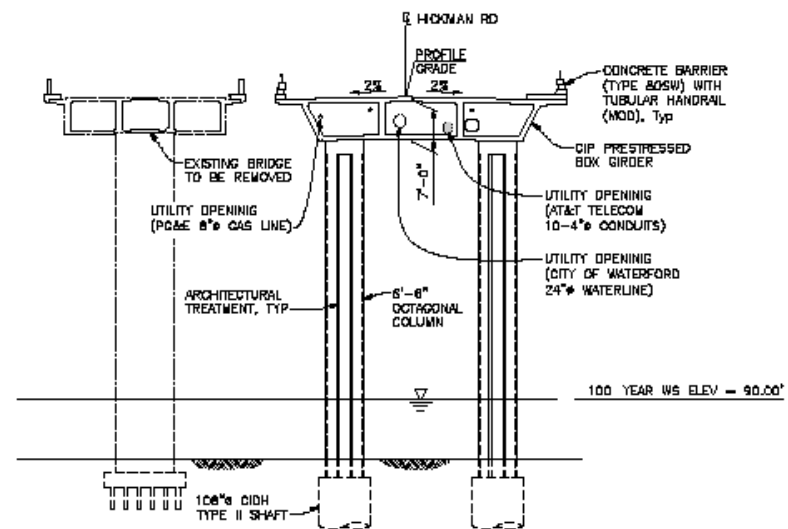
Several utilities run through the project site, including a PG&E gas pipe and AT&T telecommunication lines which are mounted to the existing bridge on the upstream and downstream face respectively. There are no overhead utilities located within the project area. All existing utilities will be relocated onto the new bridge without the need for a temporary relocation.

### ***Right-of-Way***

Construction of the new bridge on the proposed upstream alignment will require additional permanent right-of-way takes. In addition, temporary construction easements will be required to construct the project.



**TYPICAL SECTION - BENTS 2 & 5**  
1"=10'



**TYPICAL SECTION - BENTS 3 & 4**  
1"=10'

**LEGEND:**

- Indicates Existing Bridge
- Indicates New Structure

### ***Detour Route***

The new bridge will be constructed on a new upstream alignment adjacent to the existing bridge. Traffic will be able to use the existing bridge to cross Tuolumne River during the construction of the replacement bridge. The existing bridge will be demolished upon completion of the new bridge construction.

### ***Demolition and Construction Staging***

Demolition of the existing bridge will be performed in accordance with the Caltrans Standard Specifications modified to meet environmental permit requirements. All concrete and other debris resulting from the demolition of the existing bridge will be removed from the project site and disposed of by the contractor. The construction contractor will prepare a bridge demolition plan.

### ***Construction Activities***

Construction will consist of the following activities:

- Removing trees, clearing, and grubbing to accommodate the new bridge structure and road approach work
- Excavating for the new bridge foundations (maximum of 80 to 100 feet deep)
- Constructing the new bridge and road approaches, including excavating for and placing asphalt concrete.
- Removing the existing bridge
- Placing erosion control native grass seeds and mulch

**Table 2** provides a description of the type of equipment likely to be used during the construction of the proposed project.

**Table 2. Construction Equipment**

<b>Equipment</b>	<b>Construction Purpose</b>
Drill Rig	Construction of drilled or driven pile foundations
Backhoe	Soil manipulation + drainage work
Bobcat	Fill distribution
Bulldozer / Loader	Earthwork construction + clearing and grubbing
Crane	Placement of precast concrete girders or false work beams
Dump Truck	Fill material delivery
Excavator	Soil manipulation
Front-End Loader	Dirt or gravel manipulation
Grader	Ground grading and leveling
Haul Truck	Earthwork construction + clearing and grubbing
Roller / Compactor	Earthwork and asphalt concrete construction
Paver	Asphalt concrete construction
Truck with seed sprayer	Erosion control landscaping
Water Truck	Earthwork construction + dust control

***Construction Sequence/Schedule and Timing***

Construction is currently scheduled to start in 2019 and take approximately 8 months to complete.

**Surrounding land uses and setting**

The proposed project is located in Stanislaus County, California. The general setting is urban with residential, recreational/open space, commercial retail, and public facility uses. The bridge crosses over the Tuolumne River.

## Permits and Approvals Needed

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

**Table 3. Project Permits and Approvals**

Agency	Permit/Approval	Status
Caltrans/FHWA	Approval of Categorical Exclusion (CE)	Follows approval of technical studies.
Army Corps of Engineers	Section 404 Nationwide Permit	Application to follow release of IS/MND
Army Corps of Engineers	Rivers and Harbors Act Section 10 Permit	Application to follow release of IS/MND
Central Valley Regional Water Quality Control Board	Section 401 Water Quality Certification	Application to follow release of IS/MND
California Department of Fish and Wildlife	Section 1602 Streambed Alteration Agreement	Application to follow release of IS/MND
United States Fish and Wildlife Service	Section 7 Consultation for Threatened and Endangered Species	Natural Environment Study (NES) Report and Biological Assessment (BA) prepared as a basis for informal consultation
Central Valley Flood Protection Board	Central Valley Flood Protection Plan	Application to follow release of IS/MND
Central Valley Regional Water Quality Control Board	General construction activity stormwater discharge permit	File Notice of Intent and prepare Stormwater Pollution Prevention Plan (SWPPP) required prior to construction

# ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The proposed project could potentially affect the environmental factor(s) checked below. The following pages present a more detailed checklist and discussion of each environmental factor.

- |                                                             |                                                                     |                                                                 |
|-------------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------|
| <input checked="" type="checkbox"/> Aesthetics              | <input type="checkbox"/> Agriculture and Forestry Resources         | <input type="checkbox"/> Air Quality                            |
| <input checked="" type="checkbox"/> Biological Resources    | <input checked="" type="checkbox"/> Cultural Resources              | <input type="checkbox"/> Geology, Soils and Seismicity          |
| <input type="checkbox"/> Greenhouse Gas Emissions           | <input checked="" type="checkbox"/> Hazards and Hazardous Materials | <input checked="" type="checkbox"/> Hydrology and Water Quality |
| <input type="checkbox"/> Land Use and Land Use Planning     | <input type="checkbox"/> Mineral Resources                          | <input checked="" type="checkbox"/> Noise                       |
| <input type="checkbox"/> Population and Housing             | <input checked="" type="checkbox"/> Public Services                 | <input checked="" type="checkbox"/> Recreation                  |
| <input type="checkbox"/> Transportation and Traffic         | <input type="checkbox"/> Tribal Resources                           | <input type="checkbox"/> Utilities/Service Systems              |
| <input type="checkbox"/> Mandatory Findings of Significance |                                                                     |                                                                 |

## ***DETERMINATION: (To be completed by Lead Agency)***

On the basis of this initial study:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, no further environmental documentation is required.

\_\_\_\_\_  
Signature  
Shoaib Ahrary, Project Manager

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
For

# ENVIRONMENTAL CHECKLIST

## Aesthetics

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
<b>Aesthetics – Would the project:</b>				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Environmental Setting:

The general setting of the Project site is urban with recreational, commercial retail, and public facility uses. The proximity to the Tuolumne River riparian corridor provides aesthetic value to the Project Site. A public owned park, River Park, is located immediately adjacent to the Project on the northern side of the bridge. In addition, the City of Waterford recently constructed a trail, known as the Tuolumne River Parkway, within the boundaries of River Park. This trail provides the community with access to recreation, open space, education and habitat conservation along approximately two miles of the Tuolumne River corridor.

## Discussion

- a) The project site is located in a predominately recreational and commercial setting. The existing bridge crosses over the Tuolumne River. The proposed project area is representative of the general visual character of urban Stanislaus County. Additionally, the proposed bridge replacement project would not change the current land uses in the area (roadway, bridge, recreational, and commercial retail). It will be constructed adjacent to, and upstream of the existing bridge. The replacement bridge will meet current applicable County, AASHTO, and Caltrans design criteria and standards. Thus, this project would have **less than significant impact** and no mitigation measures are required.
- b) The proposed Project is not within a state scenic highway. The only officially designated state scenic highway in Stanislaus County is the Interstate 5, which is over 30 miles west of the proposed Project therefore the proposed Project would have **no impact** on scenic resources within a state scenic highway.

- c) The visual character of the proposed Project would be compatible with the existing visual character of the corridor. The proposed Project would not affect the pattern elements (landscaping trees and vegetation) of the Project area. The proposed Project would not interrupt land use diversity with the addition of new land uses.

Viewer groups include roadway users and adjacent residents. Viewer sensitivity to the proposed roadway changes is considered moderate because proximity of urban development. Construction of the proposed Project would result in temporary changes in local visual conditions, such as clearing and grading at the Project site. Any new cuts and fills will be contoured to smoothly transition into existing grades and to mimic adjacent landforms. The proposed Project would be constructed with the same aesthetic design elements. In addition, any area disturbed during construction will be revegetated with appropriate native vegetation to minimize erosion and visual contrast with existing vegetation.

Since the proposed Project would be in the same general location as the existing bridge, there would be minimal impacts to existing views. The Project would not substantially degrade the existing visual character or quality of the site and its surroundings. With the implementation of **Mitigation Measure AES-1**, the Project will have a **less than significant** impact.

- d) The Project site is not located where street lighting is present. Roadway traffic and lighting from private properties are sources of nighttime light. The proposed Project will not result in any changes that would introduce new sources of light and glare (i.e., billboards, street lamps, security lighting, etc.) to the vicinity of the Project site. Additionally, it is not the purpose of the proposed Project to increase roadway capacity, so greater numbers of vehicles will not be introduced in this area as a result of construction of the proposed Project. Consequently, the proposed Project would have **no impact** and no mitigation measures are required.

### ***Mitigation Measures***

**Mitigation Measure AES-1.** The County will implement measures to avoid and minimize potential adverse effects on the visual character of the site and vicinity.

- Incorporate designs, possibly architectural form liners, and concrete staining on the exterior girders and bridge railing to maintain the character of the existing bridge and the natural surroundings.
- Revegetate and restore any disturbed areas with the appropriate native vegetation to minimize erosion and visual contrast with existing vegetation in compliance with Section 20, "Landscape" and Section 21 "Erosion Control" of the Caltrans Standard Specifications 2015.
- Replace benches located along the trail to the same location without damages.
- Any newly planted trees within the construction staging area will be hand dug and placed into planters during the winter months preceding construction. The trees will be irrigated and cared for by a qualified professional to ensure survival during construction. If the trees do not survive repotting prior to construction and/or replanting after construction is complete, they will be replaced at a 1:1 ratio.



## ***References***

- California Department of Transportation (Caltrans), 2016. Caltrans Map of Designated Scenic Routes.
- Caltrans (2016). Visual Impact Assessment (Minor Level) for Hickman Road Bridge Replacement Project.
- Stanislaus County (2016). Stanislaus County General Plan Support Documentation, Chapter 3 Conservation.

## Agricultural and Forest Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
<b>Agricultural and Forest Resources</b> – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.				
<b>Would the project:</b>				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Environmental Setting:

According to the Stanislaus County General Plan, the leading industry in Stanislaus County is agriculture. Land use within the vicinity of the project consists of residential housing, businesses, agricultural land, a public park, a municipal water treatment facility, and the existing Hickman Road and bridge.

### Discussion

- a) The Project will not 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. The surrounding property within Stanislaus County is zoned General Agricultural; however, there is no designated farmland located within the project impact area and therefore the proposed Project would have **no impact** on or require any acquisitions of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

- b) Similar to as discussed under (a), there is no land in the project site listed under the Williamson's Act according to Department of Conservation. The proposed project will not result in any impacts to any lands covered by a Williamson Act contract. There is **no impact** and no mitigation measures are required.
- c) The proposed project site consists of a two lane bridge that crosses over the Tuolumne River. Land uses surrounding the project site are designated as residential, commercial, and agricultural. The project site is not within an area zoned for forestland or timberland. There is **no impact** and no mitigation measures are required.
- d) The proposed project is not located in the vicinity of any forest land. No forest conversion would occur as a result in the loss of forest land or conversion of forest land. There is **no impact** and no mitigation measures are required.
- e) As discussed above in (a) through (d), no important farmlands are located within the proposed project site. The proposed project does not propose any new land uses or the permanent conversion of existing agricultural lands or result in any other actions that would impact the adjacent agricultural lands. There is **no impact** and no mitigation measures are required.

## ***References***

Caltrans, (2016) Preliminary Environmental Study for Hickman Road Bridge Replacement Project.

Stanislaus County. Stanislaus County General Plan Agricultural Element (2016).

## Air Quality

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
<b>Air Quality</b> – 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.				
<b>Would the project:</b>				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## Environmental Setting

The Project site is located in San Joaquin County within the San Joaquin Valley Air Pollution Control District (SJVAPCD). The San Joaquin Valley Air Pollution Control District is made up of eight counties in California's Central Valley: San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare and the San Joaquin Valley Air Basin portion of Kern. The San Joaquin Valley Air District is a public health agency whose mission is to improve the health and quality of life for all Valley residents through efficient, effective and entrepreneurial air quality management strategies. Stanislaus County has the Stanislaus Council of Governments that is responsible for regional transportation planning and preparing the Air Quality Conformity Analysis. This document is used to bring regional emissions into federal and state air quality standards as required by the Clean Air Act.

Air quality is measured against both National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) to protect public health and the climate. "Attainment" status for a pollutant means that the Air District meets the standard set by the U.S. Environmental Protection Agency (federal) or California Environmental Protection Agency (state). The Project is located in an area that is currently non-attainment for ozone and particulate matter (PM<sub>2.5</sub>).

Ozone pollution primarily comes from cars, trucks, buses, and construction and agricultural equipment. Ozone usually is the highest concern during the summertime. Fine particulate matter, which is made up of extremely small particles and liquid droplets, is primarily a concern in the wintertime.

## **Discussion**

- a) The purpose of the proposed project is to replace the existing Hickman Road Bridge in order for the bridge to meet current structural and geometric standards while minimizing adverse impacts to the Tuolumne River and the surrounding area. The proposed project would not increase roadway capacity or service capabilities that would induce unplanned growth or remove an existing obstacle to growth. The proposed project is consistent with the Valley Air District's current Plan for the 2008 8-Hour Ozone Standard (2016), which takes into account vehicle-miles-travelled (VMT) in order to bring regional emissions into compliance with federal and state air quality standards. The proposed project would not increase long-term traffic levels and there would be no operational impacts to air quality. Therefore, the proposed project would not conflict with the region's air quality management plans and would be considered a **less-than-significant** impact and no mitigation measures are required.
- b) Since the proposed project would not add lanes or increase capacity, it would only affect local air pollutants during construction (approximately six months). The proposed project would not affect long-term air pollutant emissions in the area or stationary air pollutant sources.

## **Construction**

The primary concern to the Valley Air District during construction would be PM<sub>10</sub> emissions from dust-generating activities.

The San Joaquin Valley Air Pollution Control District has adopted the mitigation measures that relate to the proposed project, which are summarized below:

### San Joaquin Valley Air Pollution Control District-Mitigation Measures: Regulation VIII Control Measures

- All disturbed areas, including storage piles, which are not actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover or vegetative ground cover.
- All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.
- All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.
- When materials are transported off-site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.
- All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions.) (Use of blower devices is expressly forbidden.)
- Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.

With implementation of these mitigation measures, PM<sub>10</sub> impacts from construction of the proposed project would be **less-than-significant** and no mitigation measures are required.

- c) As discussed above under Item (b), the proposed project would result in minimal air pollutant emissions during the short-term duration of construction. In addition, the proposed project would not result in an increase in operational activities or emissions. Therefore, the proposed project would not 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. Consequently, this impact is **less-than-significant** and no mitigation measures are required.
- d) Construction activities would occur over a brief duration within the estimated eight-month construction timeline. Residents located adjacent to the project site and within the vicinity would be exposed to construction contaminants only for the duration of construction. This brief exposure period would substantially limit exposure to hazardous emissions. This brief exposure period is less than the two-year exposure period typically assumed for health risk analysis for small construction projects. With implementation of the minimization measures listed below, construction of the project would not expose sensitive receptors to substantial pollutant concentrations. In addition, operation of the proposed project would not result in increased levels of air pollutants. This impact would be **less-than-significant** and no mitigation measures are required.
- e) Generally, the types of projects or activities that pose potential odor problems include refineries, chemical plants, wastewater treatment plants, landfills, composting facilities, and transfer stations. The proposed project is a bridge replacement project that is located within an urban area and would not create objectionable odors affecting a substantial number of people. This impact would be **less-than-significant** and no mitigation measures are required.

### ***Minimization Measures***

Good housekeeping and/or work practices include but are not limited to the following will be implemented in order to minimize construction emissions:

- Application of water and/or approved chemicals to control emissions in the demolition of existing buildings or structures, construction operations, solid waste disposal operations, the grading of roads and/or the clearing of land.
- Application of asphalt, water and/or approved chemicals to road surfaces.
- Application of water and/or suitable chemicals to material stockpiles and other surfaces that may generate fugitive dust emissions.
- Paving and/or re-paving roads.
- Maintenance of roadways in a clean condition by washing with water or sweeping promptly.
- Covering or wetting material stockpiles and open-bodied trucks, trailers, or other vehicles transporting materials that may generate fugitive dust emissions when in motion.
- Installation and use of paved entry aprons or other effective cleaning techniques to remove dirt accumulating on a vehicle's wheels on haul or access roads to prevent tracking onto paved roadways.

- For process equipment, the installation and use of hoods, fans, and filters to enclose, collect, and clean the emissions prior to venting.
- Ceasing operations until fugitive emissions can be reduced and controlled.
- Using vegetation and other barriers to contain and to reduce fugitive emissions.
- Using vegetation for windbreaks.
- Instituting good housekeeping practices by regularly removing piles of material that have accumulated in work areas and/or are generated from equipment overflow.
- Maintaining reasonable vehicle speeds while driving on unpaved roads in order to minimize fugitive dust emissions.

## ***References***

San Joaquin Valley Air Pollution Control District. Air Quality Mitigation Strategies: Mitigation Measures.

Accessed October 2016 at

[http://www.valleyair.org/transportation/air\\_quality\\_mitigation\\_strategie.htm](http://www.valleyair.org/transportation/air_quality_mitigation_strategie.htm)

San Joaquin Valley Air Pollution Control District. Particulate Matter Plans. Accessed October 2016 at

[http://www.valleyair.org/Air\\_Quality\\_Plans/PM\\_Plans.htm](http://www.valleyair.org/Air_Quality_Plans/PM_Plans.htm)

San Joaquin Valley Air Pollution Control District. 2016 Ozone Plan for 2008 8-Hour Ozone Standard.

Accessed October 2016 at [http://www.valleyair.org/Air\\_Quality\\_Plans/Ozone-Plan-2016.pdf](http://www.valleyair.org/Air_Quality_Plans/Ozone-Plan-2016.pdf)

## Biological Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
<b>Biological Resources – Would the project:</b>				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Environmental Setting

The proposed Project is located along Hickman Road in northern Stanislaus County approximately 0.15 miles south of SR-132 near the town of Waterford and crosses over the Tuolumne River. The proposed Project is on the Waterford CA USGS 7.5' Quadrangle within Township 3 South, Range 11 East, Section 33.

Regionally, the project area is located in the Great Valley Ecological Section and within the Camanche Terraces ecological subsection, an area consisting of gently sloping to moderately steep hills and dissected terraces. There are small areas of floodplain and recent terraces along streams that cross from mountains of the central Sierra Nevada to reach the Sacramento and San Joaquin Rivers. The subsection elevation range is mostly about 200 to 600 feet, but up to 1,211 feet on Valley Springs Peak. Fluvial erosion and deposition are the main geomorphic processes. Streams in this subsection



drain to the Sacramento or San Joaquin Rivers or to closed basins in the San Joaquin Valley. All but the larger streams are generally dry during the summer. Streams in this subsection drain to the Sacramento River. The Cosumnes, Mokelumne, Stanislaus, and Tuolumne Rivers cross the subsection. All but the larger streams are generally dry during the summer. There are no lakes, but there is temporary ponding in vernal pools on Pleistocene terraces. The Camanche Terraces is characterized by needlegrass grasslands and blue oak woodlands, and northern claypan vernal pools are common within the undeveloped grasslands and Fremont cottonwood forests are common along streams. The mean annual precipitation is about 20 to 25 inches. It is practically all rain. Mean annual temperature is about 58° to 62 F. The mean freeze-free period is about 250 to 275 days.

### *Data Sources/Methodology*

The Hickman Road Bridge Natural Environment Study (NES) and Biological Assessment (BA) were prepared for the proposed project and are available for review at the County. An evaluation of biological resources was conducted to determine whether any special-status plant or wildlife species, or their habitat, or sensitive habitats occurs in the Project's study area. Data on special-status species and habitats known in the area was obtained from state and federal agencies. Maps and aerial photographs of the Project area and surrounding areas were reviewed. Field surveys were conducted to determine the habitats present.

### *Regional Species and Habitats of Concern*

Terrestrial habitat types in the Project study area include red willow thickets, valley oak woodland, ruderal grassland and pasture. Aquatic habitat types in the Project study area include the Tuolumne River, a perennial drainage. It has been determined that two federally-listed listed species, valley elderberry longhorn beetle (VELB; *Desmocerus californicus dimorphus*), and Central Valley (CV) steelhead (*Oncorhynchus mykiss*) have the potential to utilize the Project area. The Project area also provides potential habitat to the following state-listed or state species of special concern: western burrowing owl (*Athene cunicularia*), Swainson's hawk (*Buteo swainsoni*), yellow-breasted chat (*Icteria virens*), and Pacific pond turtle (*Emys marmorata*), as well as seven bat species. In addition, this Project may adversely modify chinook essential fish habitat (EFH) and will require consultation pursuant to the Magnuson-Stevens Fishery Conservation and Management Act. Although federally listed chinook salmon (*Oncorhynchus tshawytscha*) do not occur in the proposed action area, the Tuolumne River does support a fall run chinook population which is a NOAA Fisheries species of concern. Lastly, migratory birds and raptors, protected under the Migratory Bird Treaty Act (MBTA) may be present and have the potential to utilize the large trees within the riparian corridor for nesting.

### *Discussion*

- a) The proposed Project is located in a primarily urban setting however the Tuolumne River and associated riparian corridor (i.e. red willow thickets and valley oak woodland) provide potential habitat for the following special status species: VELB, CV steelhead, western pond turtle, burrowing owl, and Swainson's hawk. In addition, habitat for bridge and tree nesting migratory bird species, which are protected under the MBTA, was also found to be present within the Project area

Dewatering (if necessary) and other construction activities could potentially impact CV steelhead, and western pond turtle, if they are present in this segment of the Tuolumne River during Project construction. Potential impacts include direct harm to these species that could potentially come into contact with construction personnel and/or equipment, as well as exposure of CV steelhead, and western pond turtle, to increased chance of predation or physical

harm if they were to become trapped in the dewatered area or were trying to escape the dewatered area. Additionally, the removal of riparian vegetation could also negatively contribute to loss of stream channel shading (i.e. increased ambient water temperature) or increased erosion.

Potential indirect impacts could result from increased sedimentation rates if fine sediment is discharged into the Tuolumne River during the construction phase of the proposed Project. Increased sedimentation may adversely affect water quality and channel substrate composition. Specific rates of sedimentation are dependent upon the duration, volume, and frequency at which sediments are contributed to the surface water flow. Substantial sedimentation rates may smother fish or eggs and fish food (i.e., benthic invertebrates) and degrade spawning habitat. Furthermore, suspended sediments increase the turbidity of the water. High rates of turbidity can result in direct mortality or deleterious sublethal effects (e.g., gill abrasion, decreased visibility during foraging) to fish.

Potential direct impacts to VELB would occur with the removal of elderberry shrubs with stems greater than one inch diameter at ground level. In addition, ground disturbance within 20 feet of the dripline of an elderberry shrubs providing suitable VELB habitat is considered a direct impact to VELB. Potential indirect impacts could occur to VELB if ground disturbing activities occur within 100 feet of the dripline.

Temporary and permanent impacts to ruderal grassland and pasture habitats could potentially impact individual burrowing owls if they occupied the Project area prior to construction. Indirect impacts to nesting birds during construction could extend up to 500 feet from the limits of construction. Potential impacts could include abandonment of nest sites and the mortality of young. The Project could also result in a temporary loss of foraging opportunities for burrowing owl in and adjacent to the Project area during construction.

Noise associated with construction activities involving heavy equipment operation that occurs during the breeding season (generally between February 1 and August 31) could disturb nesting burrowing owl, Swainson's hawk, and yellow-breasted chat, if an active nest is located near these activities. Potential impacts could include abandonment of nest sites and the mortality of young. Any disturbance that causes burrowing owl, Swainson's hawk, and/or yellow-breasted chat, nest abandonment and subsequent loss of eggs or developing young at active nests located near the Project area would violate the CESA (CFG Sections 2800, 3503, and 3503.5) and the MBTA.

In addition, the removal of trees within the riparian corridor could potentially impact nesting raptors and songbirds, including Swainson's hawk and yellow-breasted chat, if they begin nesting prior to construction. Construction-related activities could directly affect active nest sites through tree removal or cause indirect impacts such as nest abandonment.

Demolition of the existing bridge structure would result in the removal of suitable bat roosting habitat. If bats are roosting under the bridge at the time of demolition, there is the potential to result in mortality to individual bats. In addition, if bats are roosting under the existing bridge they will have to relocate to another suitable roost site potentially exposing them to increased stress and chance of predation.

With the implementation of **Mitigation Measure BIO-1, Mitigation Measure BIO-2, Mitigation Measure BIO-3a and 3b, and Mitigation Measure BIO-10**, impacts to special-status aquatic and semi-aquatic wildlife species will be **less-than-significant**.

With the implementation of **Mitigation Measure BIO-1, and Mitigation Measures BIO-4 through Mitigation Measure BIO-8**, impacts to special-status terrestrial wildlife species will be **less-than-significant**.

- b) Valley oak woodland and red willow thickets form a riparian corridor along the Tuolumne River. The dominant species within the valley oak woodland are valley oak (*Quercus lobata*) with an annual grassland understory consisting of Italian rye grass (*Festuca perennis*), bicolored lupine (*Lupinus bicolor*), blue wild rye (*Elymus glaucus*), ripgut brome (*Bromus diandrus*), and soft chess (*Bromus hordeaceus*). Within the red willow thicket habitat, the dominant species include red willow (*Salix laevigata*), black willow (*Salix gooddingii*), Fremont's cottonwood (*Populus fremontii*), narrow-leaved willow (*Salix exigua*), and tree tobacco (*Nicotiana glauca*). The understory is dominated by Himalayan blackberry (*Rubus armeniacus*). The dominant trees within this riparian corridor overhang the Tuolumne River, providing shade to keep water temperatures down and providing detritus and food for aquatic species within the creek.

The installation of the bridge piers on the south bank of the Tuolumne River would result in a permanent direct impact to red willow thicket habitat, totaling approximately 0.003 acres and includes the removal of 7 valley oaks as well as 12 almond (*Prunus* sp.) trees. Temporary impacts, totaling approximately 0.77 acres, will occur as a result of grubbing and clearing activities to allow access by construction equipment and personnel and includes the installation of the temporary access ramp, temporary work trestle, and the removal of the existing bridge.

The construction of the south abutment and the installation of the piers would result in a permanent direct impact to valley oak woodland habitat, totaling approximately 0.16 acres. Temporary impacts, totaling approximately 1.03 acres, will occur as a result of grubbing and clearing activities to allow access by construction equipment and personnel and includes the installation of the temporary access ramp, and removal of the existing bridge. Temporary impacts will be limited to the understory and will not result in tree removal.

Valley oak woodland and red willow thicket habitat cannot be avoided during construction of the new bridge. Minimization efforts will include marking the limits of construction with temporary fencing to prevent affecting these riparian habitats outside the Project area. Trucks and other vehicles will not be allowed to park beyond, nor shall equipment be stored beyond, the fencing. No vegetation removal, ground disturbing activities, or burning will be permitted beyond the fencing. Incorporation of this avoidance measure will help ensure that construction is limited to the project area to avoid the potential for impacts to riparian habitat beyond those permitted by construction entitlements.

The Project will restore any areas of temporary disturbance within the Project area. On-site restoration activities will include stream bank contouring and compaction to existing grade and hydroseeding with a native plant mixture to stabilize the soil and prevent erosion. After the Project is approved, the County will apply for any necessary permits from CDFW. Impacts will be mitigated in accordance with agency requirements.

With the implementation of **Mitigation Measure BIO-9** impacts to riparian habitat will be **less-than-significant**.

- c) The Tuolumne River was identified as a potential waters of the U.S. and falls under the jurisdiction of the Corps per Section 404 of the Clean Water Act (CWA). Implementation of the proposed Project may permanently impact approximately 0.002 acres of Tuolumne River due to the placement of rock slope protection below the ordinary high water mark and the installation of the bridge piers. In addition, the Project will temporarily impact approximately 0.39 acres of the Tuolumne River. Temporary impacts to the Tuolumne River will result from stream diversion and removal of the existing bridge. As part of the proposed project, the following permits are expected to be obtained prior to construction: a Clean Water Act Section 404 Nationwide Permit from the Corps; a Clean Water Act Section 401 Water Quality Certification Waiver from the Regional Water Quality Control Board; and a California Fish and Game Code 1600-1602 Streambed Alteration Agreement from the CDFW. All permit requirements, and **Mitigation Measure BIO-10**, will be implemented to mitigate impacts to waters of the U.S. and reduce impacts to water quality during construction thereby reducing the level of impact to **less-than-significant**.
- d) The Tuolumne River and the associated riparian corridor provides a movement corridor for areas between the San Joaquin River valley to the west and the Sierra Nevada Mountains to the east. The river allows aquatic and terrestrial wildlife species to safely disperse back and forth between suitable habitats to the east and west of the Project area. Highways and roads can present an impassable barrier to many wildlife species and are hazardous for wildlife to cross. Relatively unimpeded waterways such as the Tuolumne River provide important movement corridors, which allow dispersal and subsequent gene flow between wildlife populations separated by roads and populated areas. The proposed Project would not remove, degrade or otherwise interfere substantially with the structure or function of these wildlife movement corridors, though some temporary disruption of wildlife movement would occur during the construction period. With the implementation of **Mitigation Measure BIO-9** and **Mitigation Measure BIO-10** impacts to riparian habitat and the Tuolumne River will be less-than-significant.
- e) Stanislaus County does not currently have a tree conservation ordinance. However, the Open Space and Conservation Element of the Stanislaus County General Plan (General Plan) calls for all discretionary projects with potential impacts to have an Oak Woodland Management Plan and for the adoption of an ordinance for protection of Oak Woodlands. The Open Space and Conservation Element also provides policy guidance to address the conservation and long-range management and preservation of open-space lands and support plant and animal species, including wetland resources and special-status species. With the implementation of **Mitigation Measure BIO-9**, the Project will not be in conflict with any tree preservation policies and therefore will have a **less-than-significant** impact.
- f) Stanislaus County does not currently have a habitat conservation plan or similar county-wide habitat conservation plan in place; therefore, there is **no impact**.

## ***Mitigation Measures***

**Mitigation Measure BIO-1.** The County will implement measures to avoid and minimize potential adverse effects on special status species. Prior to conducting work and during work, the following measures will be implemented.

- A qualified biologist will conduct environmental awareness training for all construction workers prior to construction workers beginning their work efforts on the project. The training shall include information on species identification, avoidance measures to be implemented by the project, and the regulatory requirements and penalties for noncompliance.
- Ground disturbance and construction footprints will be minimized to the greatest degree feasible.
- During construction, all trash that may attract predators will be properly contained, removed from the work area, and disposed of regularly. The County or its contractor will remove all trash and construction debris from the work area on a daily basis.
- Vehicles or equipment would not be refueled within 100 feet of a wetland, stream or other waterway unless a bermed and lined refueling area is constructed.
- Construction equipment would arrive at the project clean and free of soil, seed, and plant parts to reduce the likelihood of introducing new weed species.
- To avoid entrapment of covered species and thereby preventing injury or mortality of species resulting from falling into trenches, all construction holes or trenches deeper than 6 inches would be provided with one or more escape ramps constructed of earth fill or wooden planks at the end of each workday. If escape ramps cannot be provided, then holes or trenches would be covered with plywood or other hard material. Additionally, any pipes, culverts, or similar materials greater than 4 inches in diameter would be capped or stored at the end of each day, so as to prevent listed species from using these as temporary refuges, and becoming trapped or otherwise negatively affected.
- Any worker who inadvertently injures or kills a federally-listed species or finds one dead, injured, or entrapped would immediately report the incident to the construction foreman or the biological monitor. The construction foreman or monitor would immediately notify the County, which would provide verbal notification to the USFWS Endangered Species Office in Sacramento, California. The County would follow up with written notification to USFWS within 3 working days of the incident. The biological monitor would also independently notify USFWS of any unanticipated harm to any federal listed endangered species associated with the proposed action. All observations of federal listed species would be recorded on CNDDDB field sheets and sent to CDFW by the County or a representative biological monitor.

**Mitigation Measure BIO-2.** The County shall complete and/or ensure that the construction contractor implements the following special status fish avoidance/compensation measures:

- To avoid and minimize water quality impacts associated with a dewatering plan (should it be required), site preparation and dewatering activities will occur from June 15<sup>th</sup> to September 30<sup>th</sup>. This is a period of the year when NOAA Fisheries' Endangered Species Act (ESA) listed species are least likely to occur in the Project area.

- Prior to dewatering, a qualified fisheries biologist will design and conduct a fish and wildlife rescue and relocation effort to collect fish and other wildlife species from the area within the dewatering area involving the capture and return of those animals to suitable habitat within the Tuolumne River. To ensure compliance, a fisheries biologist will provide observation during initial dewatering activities. The fish rescue plan will be approved by NOAA Fisheries, and CDFW prior to dewatering activities.
- An approved biologist will permanently remove, from within the project site, any exotic wildlife species, such as bullfrogs and crayfish, to the extent possible.
- After construction activities are finalized, the stream channel will be restored to preconstruction conditions.
- The County will mitigate for the temporary (0.18 acres) and permanent (0.05 acres) loss of riparian habitat through the purchase of mitigation credits from a CDFW-approved mitigation bank at a ratio of 3:1 as determined by NOAA Fisheries and CDFW.
- To compensate for permanent impacts on jurisdictional waters, the County will purchase credits from a U.S Army Corps of Engineers (Corps) and/or CDFW approved mitigation bank at a minimum 1:1 ratio (one acre of habitat replaced for every one acre filled).
- If gabion mats or other bank stabilization methods are placed on the stream bank, use a soil-rock mixture to facilitate re-vegetation of the project site. A ratio of rock to soil (70:30) is recommended. NOAA Fisheries suggests a soil-rock mixture on top of the rock revetment to allow native riparian vegetation to be planted to ensure shaded riverine aquatic (SRA) habitat is replaced.

**Mitigation Measure BIO-3a:** No more than two weeks prior to the commencement of ground-disturbing activities, the County shall retain a qualified biologist to perform surveys for western spadefoot, and western pond turtle within suitable aquatic and upland habitat within the Project site. Surveys will be conducted to locate the presence of western spadefoot and western pond turtle as well as western pond turtle nests. The biologist (with the appropriate scientific collecting permit issued by CDFW) will temporarily move any identified western spadefoot or western pond turtles upstream of the construction area, and temporary barriers will be placed around the construction area to prevent ingress. Construction will not proceed until the work area is determined to be free of spadefoot and turtles and their nests. The results of these surveys will be documented in a technical memorandum that will be submitted to CDFW (if frogs or turtles are documented). If the pre-construction surveys identify western pond turtle nests within areas that may be affected by site construction, species avoidance measures shall occur through implementation of Mitigation Measure BIO-5b.

**Mitigation Measure BIO-3b:** Should a western pond turtle nest be located within a work area, the County shall ensure that a qualified biologist (with the appropriate scientific collecting permit issued by CDFW) relocate the eggs to a suitable facility for incubation and release hatchlings into the creek system in late fall. The biologist will be present on the project area during initial ground clearing, grading, and during all other construction activities.

**Mitigation Measure BIO-4:** The following avoidance and minimization measures should reduce potential impacts to VELB, in accordance with the USFWS Framework for Assessing Impacts to Valley Elderberry Longhorn Beetle (VELB Framework), dated May 2017:

- A qualified biologist shall survey for elderberry shrubs within 100 feet of the project footprint. Data to be collected shall include signs of VELB exit holes, type of habitat where the shrub is located, and associated native species. Once the final limits of construction are set, highly visible ESA fencing shall be installed at the 20-foot setback around the perimeter of each elderberry plant or plant group. ESA fencing shall consist of highly visible construction fencing or equivalent, and shall be maintained until construction is complete. A qualified biologist shall be present during the installation of fencing.
- Employee awareness training shall be provided for the contractor to emphasize the need to avoid damaging elderberry plants and the possible penalties for not complying with these requirements.
- A qualified biologist shall periodically inspect the construction area to assure that the Project is not affecting any elderberry plants.
- Herbicides will not be used within the drip-line of the shrub. Insecticides will not be used within 30 meters (98 feet) of an elderberry shrub. All chemicals will be applied using a backpack sprayer or similar direct application method. Any damage occurring within the elderberry buffer areas (within 100 feet of the elderberry plants) shall be restored and revegetated with appropriate native species at the completion of construction.
- As much as feasible, all activities that would occur within 50 meters (165 feet) of an elderberry shrub, would be conducted outside of the flight season of the VELB (March - July).
- Mechanical weed removal within the drip-line of the shrub will be limited to the season when adults are not active (August - February) and will avoid damaging the elderberry.
- If a minimum 20-foot setback from the dripline of all elderberry plants in the BSA cannot be maintained for all Project activities, USFWS shall be contacted and additional mitigation measures may be required.
- To compensate for impacts to VELB habitat, the County will either plant 7 elderberry seedlings, as well as 5 associated native plant replacements or purchase credits through an approved mitigation bank. Credit purchase will be based on a one credit to 10 plantings ratio, rounded up to the nearest credit (i.e. the purchase of 2 credits would be required).

**Mitigation Measure BIO-5:** Prior to construction, surveys shall be conducted by a qualified biologist to determine presence/absence of burrowing owls and/ or occupied burrows in and within 500 feet of the PIA according to the 2012 CDFW Staff Report on Burrowing Owls. If presence is confirmed, during that same year a winter survey will be conducted between December 1 and January 31 and a nesting survey will be conducted between April 15 and July 15. Preconstruction surveys will also be conducted within 30 days prior to construction to ensure that no additional burrowing owls have established territories since the initial surveys. If no burrowing owls are found during any of the surveys, no further mitigation will be necessary. If burrowing owls are found, then the following measures shall be implemented prior to the commencement of construction:

- During the non-breeding season (September 1 through January 31) burrowing owls occupying the PIA should be evicted from the PIA by passive relocation as described in the Staff Report on Burrowing Owls (CDFW 2012).

- During the breeding season (February 1 through August 31) occupied burrows shall not be disturbed and shall be provided with a 250 feet protective buffer unless a qualified biologist approved by CDFW verifies through non-invasive means that either: 1) the birds have not begun egg laying, or 2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. Once the fledglings are capable of independent survival, the burrow can be destroyed.

**Mitigation Measure BIO-6:** Prior to construction, surveys will be conducted by a qualified biologist to determine presence/absence of nesting Swainson's hawk in and within 0.50 miles of the BSA according to the *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (Swainson's Hawk Technical Advisory Committee 2000). If no Swainson's hawks are found during any of the surveys, no further mitigation will be necessary. If Swainson's hawk nests are found, CDFW will be consulted regarding measures to reduce the likelihood of forced fledging of young or nest abandonment by adult birds. These measures will likely include, but are not limited to, the establishment of a no-work zone around the nest until the young have fledged as determined by a qualified biologist.

**Mitigation Measure BIO-7a:** The following avoidance and minimization measures shall be used when work occurs on or in the vicinity of structures that may be subject to nesting by yellow-breasted chat and other migratory birds.

- **Avoid Active Nesting Season.** To avoid and minimize impacts to tree and shrub nesting species, the following measures would be implemented;
  - If feasible, conduct all tree and shrub removal and grading activities during the non-breeding season (generally September 1 through January 31).
  - If grading and tree removal activities are scheduled to occur during the breeding and nesting season (February 1 through August 31), pre-construction surveys would be performed prior to the start of Project activities.
- **Conduct Pre-construction Nesting Bird Surveys.** If construction, grading or other Project-related activities are schedule during the nesting season (February 1 to August 31), preconstruction surveys for other migratory bird species would take place no less than 14 days and no more than 30 days prior to the beginning of construction within 250 feet of suitable nesting habitat.
  - If the pre-construction surveys do not identify any nesting migratory bird species within areas potentially affected by construction activities, no further mitigation would be required. If the pre-construction surveys do identify nesting bird species within areas that may be affected by site construction, the following measures would be implemented.
- **Avoid Active Bird Nest Sites.** Should active nest sites be discovered within areas that may be affected by construction activities, additional measures would be implemented as described below:
  - If active nests are found, Project-related construction impacts would be avoided by establishment of appropriate no-work buffers to limit Project-related construction activities near the nest site. The size of the no-work buffer zone would be



determined in consultation with the DFW although a 500-foot would be used when possible. The no-work buffer zone would be delineated by highly visible temporary construction fencing. In consultation with DFW, monitoring of nest activity by a qualified biologist may be required if the Project-related construction activity has potential to adversely affect the nest or nesting behavior of the bird. No Project-related construction activity would commence within the no-work buffer area until a qualified biologist and DFW confirms that the nest is no longer active.

**Mitigation Measure BIO 7b:** The following avoidance and minimization measures shall be incorporated for bridge-nesting birds if bridge demolition or construction of the new bridge occurs during the nesting season (February 1 to August 31). Exclusionary netting shall be installed around the undersides of the existing bridge before February 1 of the construction year to prevent new nests from being formed, and/or prevent the reoccupation of existing nests. Exclusionary netting may also be required during construction of the new bridge if it is completed during the breeding season. The construction contractor would do the following:

- Adhere to all state and federal laws and regulations pertaining to the protection of migratory birds, their nests, and young birds.
- Remove all existing unoccupied nests on the bridge during the non-nesting season (September 1-January 31).
- Keep the bridge free of nests, using exclusionary netting or other approved methods, until completion of construction activities.
- Inspect all listed structures for nesting activity a minimum of three days per week; no two days of inspection would be consecutive. A weekly log would be submitted to the Project biologist. The contractor would continue inspections until bridge removal and completion of construction on new bridge. If an exclusion device were found to be ineffective or defective, the contractor would complete repairs to the device within 24 hours. If birds were found trapped in an exclusion device, the contractor would immediately remove the birds in accordance with USFWS guidelines.
- Submit for approval working drawings or written proposals of any exclusion devices, procedures, or methods to the Project biologist before installing them.
- The method of installing exclusion devices would not damage permanent features of the new bridge structure. Approval by the Project biologist of the working drawings or inspection performed by the authorized Project biologist would in no way relieve the contractor of full responsibility for deterring nesting.

**Mitigation Measure BIO-8:** A bat survey shall be conducted by a qualified biologist to inspect the underside of the existing bridge for roosting bats prior to demolition. If no roosting bats are found, no further mitigation would be necessary. If pallid bats or other bat species are detected within the roost at the time of the survey, excluding any bats from roosts will be accomplished by a qualified biologist prior to demolition of the bridge. The timing and other methods of exclusionary activities will be developed by the qualified biologist in order to reduce the stress on the bats to the amount feasible while taking into account project schedule. Exclusionary devices, such as plastic sheeting, plastic or wire mesh, can be used to allow for bats to exit but not re-enter any occupied roosts. Expanding foam and plywood sheets can be used to prevent bats from entering unoccupied roosts.

**Mitigation Measure BIO-9.** The County shall implement the following riparian habitat avoidance and compensation measures:

- Prior to removal of any trees, an ISA Certified Arborist will conduct a tree survey in areas that may be impacted by construction activities. This survey will document tree resources that may be adversely impacted by implementation of the proposed project. The survey will follow standard professional practices.
- Current riparian vegetation and oaks will be retained to extent feasible. A Tree Protection Zone (TPZ) will be established around any tree or group of trees to be retained. The TPZ will be delineated by an ISA Certified Arborist. The TPZ will be defined by the radius of the dripline of the tree(s) plus one foot. The TPZ of any protected trees will be demarcated using fencing that will remain in place for the duration of construction activities.
- Construction-related activities will be limited within the TPZ to those activities that can be done by hand. No heavy equipment or machinery will be operated within the TPZ. Grading will be prohibited within the TPZ. No construction materials, equipment, or heavy machinery will be stored within the TPZ.
- To ensure that there is no net loss of riparian habitat, the County will create or restore riparian habitat that is of a like function and value to the habitats lost. The permanent degradation of riparian habitat will be compensated for at a 3:1 ratio through the purchase of similar habitat value from a CDFW-approved conservation bank. Compensation will take the form of riparian preservation or creation in accordance with CDFW mitigation requirements, as required under project permits. Preservation and creation may occur onsite through a conservation agreement or offsite through purchasing credits at a Corps approved mitigation bank.
- This mitigation will include compensation for the loss of riparian habitat and will include the planting of valley foothill/floodplain/ mixed riparian as appropriate. The planting plan will be implemented as detailed in a Restoration Plan approved by CDFW. The plan will include performance standards for revegetation that will ensure successful restoration of the riparian areas.
- The County will replace any trees removed to ensure no net loss of habitat functions or values. All trees planted will be purchased from a locally adapted genetic stock obtained within 50 miles of the project site, where feasible. All species will be replaced at a 1:1 ratio.
- The County will protect other wetlands, riverine and associated riparian habitats located in the vicinity of the project site by installing protective fencing. Protective fencing will be installed along the edge of construction areas including temporary and permanent access roads where construction will occur within 200 feet of the edge of wetland and riverine habitat (as determined by a qualified biologist). The location of fencing will be marked in the field with stakes and flagging and shown on the construction drawings. The construction specifications will contain clear language that prohibits construction-related activities, vehicle operation, material and equipment storage, trenching, grading, or other surface-disturbing activities outside of the designated construction area. Signs will be erected along the protective fencing at a maximum spacing of one sign per 50 feet of fencing. The signs will state: "This area is environmentally sensitive; no construction or other operations may occur beyond this fencing. Violators may be

subject to prosecution, fines, and imprisonment.” The signs will be clearly readable at a distance of 20 feet, and will be maintained for the duration of construction activities in the area.

- Where riparian vegetation occurs along the edge of the construction area, the County will minimize the potential for long-term loss of riparian vegetation by trimming vegetation rather than removing the entire plant. Trimming will be conducted per the direction of a biologist and/or Certified Arborist.

**Mitigation Measure 10.** The County will ensure that the project contractor complies with the requirements of a National Pollution Discharge Elimination System (NPDES) permit from the Regional Water Quality Control Board (RWQCB), Central Valley Region. As part of the permit, the contractor would be required to prepare and implement a SWPPP into their construction plans, prior to initiating construction activities, identifying BMPs to be used to avoid or minimize any adverse effects before, during, and after construction to surface waters. The following BMPs will be incorporated into the project as part of the construction specifications:

- Implement appropriate measures to prevent debris, soil, rock, or other material from entering the water. Use a water truck or other appropriate measures to control dust on applicable access roads, construction areas, and stockpiles.
- Properly dispose of oil or other liquids.
- Fuel and maintain vehicles in a specified area that is designed to capture spills. All fueling and maintenance of vehicles and other equipment (including staging areas), will be located at least 20 meters from Indian Creek and any other drainages on site.
- Fuels and hazardous materials would not be stored on site.
- Inspect and maintain vehicles and equipment to prevent the dripping of oil or other fluids.
- Schedule construction to avoid the rainy season as much as possible. Ground disturbance activities are expected to begin in the spring/summer of 2016. If rains are forecasted during construction, additional erosion and sedimentation control measures would be implemented.
- Maintain sediment and erosion control measures during construction. Inspect the control measures before, during, and after a rain event.
- Train construction workers in storm water pollution prevention practices.
- Revegetate disturbed areas in a timely manner to control erosion.

## ***References***

Caltrans. 2016. Natural Environment Study for the Hickman Road over the Tuolumne River Bridge Replacement Project. December 2016.

Caltrans. 2016. Biological Assessment for the Hickman Road over the Tuolumne River Bridge Replacement Project. January 2017.

## Cultural Resources

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

## Environmental Setting

The Central California Information Center (CCIC) conducted a records search (Records Search File No.: 9582N) of the APE and Architectural APE (herein referred to as the Study Area) and a 0.5-mile radius on December 21, 2015. The records search identified two previously recorded historic-period archaeological cultural resources within the Study Area, and a portion of a historic-period linear cultural resource that is not formally recorded within the Study Area. The two previously recorded historic-period archaeological cultural resources identified by the CCIC as being within the Study Area include the remains of a 1914 bridge; and nonnative vegetation in a 2.3-acre lot that is a possible former residential site. The one previously recorded historic-period archaeological cultural resources identified by the CCIC as being not formally recorded in the Study Area includes the remains of the Southern Pacific Railroad line.

Two previously recorded historic-period archaeological cultural resources, two previously recorded historic-period built environment cultural resources, and one roadside monument not yet formally recorded were identified within 0.5-miles of the Study Area. The five historic-period cultural resources that are within the 0.5-mile radius of the Study Area include SR 132 over Waterford Canal Bridge No. 380057; an industrial shed with internal and external machinery and a wooden animal shelter; site of the former Maitland Hotel consisting of foundations and refuse deposits; set of concrete steps associated with a former house; and a “Clamper” roadside monument, Monument to Waterford/Bakersville erected by Estanislao Chapter 58 E Clampus Vitus.

On December 31, 2015, letters were sent describing the project and maps depicting the Study Area to the Waterford Historical Society requesting any information or concerns they may have about the Project. The society did not respond within two weeks and no response has been received to date. Lastly, on March 7, 2016, Architectural Historian, Ann Andreazzi, conducted focused archival research for the property located at 349 S. Appling Road at the Stanislaus County Assessor’s Office. Mrs. Andreazzi examined the appraisal file for Assessor Parcel Number (APN) 080-011-001-000 to identify the construction history for all built environment resources documented on the property and to determine whether it was eligible for inclusion in the National Register of Historic Places (NRHP) and the California

Register of Historical Resources (CRHR). Based on the results of this study, the resource does not appear eligible for inclusion in the NRHP or the CRHR either individually or as a contributor to a historic district due to a lack of significance and integrity. Furthermore, it does not appear to be a historical resource for the purposes of CEQA.

Archaeologist, Mariko Falke, B.A., and Architectural Historian, Ann Andreazzi, surveyed all accessible portions of the Study Area on February 2, 2016. A river island within the Tuolumne River located in the Study Area on the east side of the bridge was not surveyed; the island was inaccessible due to high water and dense overgrown vegetation. Ground visibility of the remainder of the Study Area was limited by developed surfaces and vegetation, and ranged from 30 percent to 70 percent. The Study Area was surveyed using straight transects spaced no wider than 15 feet.

## **Discussion**

- a) After an intensive pedestrian survey of the APE, no cultural resources, either historic or prehistoric were found. It is possible to discover historic resources during ground-disturbing activities; however, with **Mitigation Measure CUL-1**, impacts should become **less-than-significant**.
- b) The soil types in the Study Area are variable. The portion of the Study Area north of the Tuolumne River is composed of nearly equal parts Madera sandy loam, Hanford sandy loam, Grangeville very fine sandy loam, and terrace escarpments. The portion of the Study Area south of the Tuolumne River consists primarily of terrace escarpments and riverwash, with portions consisting of Hanford sandy loam. Hanford and Grangeville soils have a high sensitivity for buried archaeological resources (Rosenthal and Meyer 2004). Since there would be ground-disturbing work, it is possible to cause adverse significant change to archaeological resources. The exposure of historic and archaeological resources during ground-disturbing activities is addressed by adherence to **Mitigation Measure (CUL-1)**, impacts should become **less than significant**.
- c) Paleontological resources are the fossilized evidence of past life found in the geologic record. Despite the tremendous volume of sedimentary rock deposits preserved worldwide, preservation of plant or animal remains as fossils is an extremely rare occurrence. Because of the infrequency of fossil preservation, fossils – particularly vertebrate fossils – are considered to be nonrenewable resources. Because of their rarity, and the scientific information they can provide, fossils are considered highly significant records of ancient life.

A search of the University of California Museum of Paleontology (UCMP) collections database identified 1655 occurrences in Stanislaus County, California. Based on the database search, no paleontological resources have been identified in the project area. No known paleontological resources or unique geologic features exist within the project site. Given the recent development and high level of disturbance in properties within the APE, the proposed project is not likely to destroy, either directly or indirectly, a unique paleontological resource or site, or geological feature. As described in **Mitigation Measure CUL-1** below, if such a resource should be encountered during construction, work would stop until the resource can be evaluated and a determination made of its significance and need for recovery, avoidance, and/or mitigation. Therefore, the proposed project would result in a **less-than-significant impact** on paleontological resources or unique geologic features.

- d) Based upon a records search, no human remains are known to exist within the project site. In the unlikely event that human remains are discovered, work within the area will be stopped and the appropriate county coroner will be notified immediately. In the event that the bone most likely represents a Native American, the Native American Heritage Commission will be notified so that the most likely descendants can be identified and appropriate treatment can be implemented. Therefore, with the incorporation of this measure, the proposed project would not result in any significant impacts with respect to disturbing any human remains, including those interred outside of formal cemeteries. To ensure a **less-than-significant impact** in the event of an accidental discovery, **Mitigation Measure CUL-2** shall be implemented.

### ***Mitigation Measures***

**Mitigation Measure CUL-1: Discovery of Cultural Resources during Ground-Disturbing Activities.** If buried cultural materials are encountered during construction, it is Caltrans' policy that work stop in that area until a qualified archaeologist can evaluate the nature and significance of the find. Additional survey will be required if the proposed project changes to include areas not previously surveyed.

The need for archaeological and Native American monitoring during the remainder of the project will be re-evaluated by the archaeologist as part of the treatment determination. The archaeologist shall consult with appropriate Native American representatives in determining appropriate treatment for unearthed cultural resources if the resources are prehistoric or Native American in nature.

In considering any suggested mitigation proposed by the archaeologist in order to mitigate impacts to cultural resources, the project proponent will determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is infeasible, other appropriate measures (e.g., data recovery) will be instituted.

**Mitigation Measure CUL-2: Halt Work if Human Skeletal Remains are identified during Construction.** If buried cultural materials are encountered during construction, it is Caltrans' policy that work stop in that area until a qualified archaeologist can evaluate the nature and significance of the find. In the event that human remains or associated funerary objects are encountered during construction, all work will cease within the vicinity of the discovery. In accordance with the California Environmental Quality Act (CEQA) (Section 1064.5) and the California Health and Safety Code (Section 7050.5), the county coroner will be contacted immediately. If the human remains are determined to be Native American, the coroner will notify the Native American Heritage Commission, who will notify and appoint a Most Likely Descendent (MLD). The MLD will work with a qualified archaeologist to decide the proper treatment of the human remains and any associated funerary objects.

### ***References***

- Caltrans, 2016. Archaeological Survey Report Hickman Road over Tuolumne River Bridge Replacement Project. December 2016.
- Caltrans, 2016. Historical Resources Evaluation Report for the Hickman Road over Tuolumne River Bridge Replacement Project; December 2016.
- Rosenthal, Jeffrey S., and Jack Meyer. 2004. Cultural Resources Inventory of Caltrans District 10 Rural Conventional Highways, Volume III: Geoarchaeological Study: Landscape Evolution and the

Archaeological Record of Central California. Far Western Anthropological Research Group, Inc. Davis, California.

University of California Museum of Paleontology, Berkeley. UCMP Specimen Search. <http://ucmpdb.berkeley.edu/>. Accessed January 2017.

## Geology, Soils, and Seismicity

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
<b>Geology, Soils and Seismicity –Would the project:</b>				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Discussion

a.i-a.iv) The area surrounding the project site is composed of rural residential and agricultural lands. According to the United States Geological Survey (USGS) Earthquake Hazards Program (2006), the nearest fault is an unnamed fault line located over 10 miles west of the project site. According to the Department of Conservation, the project site is not located within the Mare Island Alquist-Priolo Earthquake Fault Zone.

Liquefaction of granular soils can be caused by strong vibratory motion due to earthquakes. Soils that are highly susceptible to liquefaction are medium- to fine-grained, loose, granular and saturated at depths of less than 50 feet below the ground surface. Liquefaction of soils causes surface distress, loss of bearing capacity, and settlement of structures that are founded on the soils. According to the United States Department of Agriculture (USDA) Soil Conservation Service, there are eleven soil types in the project area and include riverwash (gravelly sand), terrace escarpments (variable), Hanford (sandy loam), Madera (sandy loam), Grangeville (very fine sandy loam and sandy loam), gravel pits (very gravelly sand), Tujunga (loamy sand), San Joaquin (sandy loam), Greenfield (sandy loam), and Whitney (sandy loam). These soils are



moderately well-drained to excessively drained with very slow to high infiltration rates. Thus, the project site has very low liquefaction susceptibility.

According to the Department of Conservation CGS Information Warehouse, landslides do not occur in the vicinity of the project. The probability of landslides occurring on the project site is very low.

The proposed project is a bridge replacement and would not expose additional people or structures to substantial adverse effects. The new bridge would comply with the 2016 California Building Code, which would minimize the potential effects of ground shaking. This impact is considered **less-than-significant**.

- b) The proposed project involves removing the existing bridge and constructing a new bridge over the Tuolumne River. Construction activities will involve earth moving activities. Construction activities involving soil disturbance, excavation, cutting/filling, demolition, paving, and grading activities have the potential for surface water runoff to carry sediment. Potential erosion impacts from construction activities will be **less-than-significant**.
- c) According to the Department of Conservation CGS Information Warehouse: Landslides, very few landslides occur in the vicinity of the project. The probability of landslides occurring on the project site is very low. The project site does not have loose sandy soil, nor does it contain soils that would be susceptible to lateral spreading, liquefaction, or collapse. With adherence to all applicable codes and regulations, including the 2016 California Building Code, the project's impacts associated with on-or off-site landslide would be minimized. The impact is considered to be **less than-significant**.
- d) Expansive soils are those possessing clay particles that react to moisture changes by shrinking (when dry) or swelling (when wet). The extent of shrinking and swelling is influenced by the environment, including the extent of wet or dry cycles, and by the amount of clay in the soil. This physical change in the soils can react unfavorably with building foundations, concrete walkways, swimming pools, roadways, and masonry walls. As stated earlier, there are eleven soil types within the project site. All soils types are mostly sand and/or loam which are not considered expansive soil types. Therefore the proposed bridge replacement project would not expose life or properties to adverse effects associated with expansive soil. The impact is considered to be **less-than-significant**.
- e) The proposed project does not involve the connection to sewer systems, septic tanks as part of the proposed project; therefore, there is **no impact**.

## **References**

Department of Conservation. CGS Information Warehouse: Landslides. Accessed October 2016 at <http://maps.conservation.ca.gov/cgs/informationwarehouse/>

State of California. Alquist-Priolo Earthquake Fault Zoning Map; 2007.  
<http://www.quake.ca.gov/gmaps/WH/regulatorymaps.htm>. Accessed October 2016.

U.S. Geological Survey and California Geological Survey, 2006. Quaternary fault and fold database for the United States. <http://earthquakes.usgs.gov/regional/qfaults/>. Accessed October 2016.

## Greenhouse Gas Emissions

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
<b>Greenhouse Gas Emissions –Would the project:</b>				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### ***Environmental Setting:***

California's primary legislation for reducing greenhouse gas emission is the California Global Warming Solutions Act (Assembly Bill [AB] 32). The San Joaquin Valley Air Pollution Control District adopted the Climate Change Action Plan (CCAP) adopted in November 2008.

### ***Discussion***

- a, b) The purpose of this project is to remove the existing structurally deficient structure and replace it with a new bridge designed to current structural and geometric standards while minimizing adverse impacts to the Tuolumne River and the surrounding riparian corridor. As the proposed project would not include additional through lanes, the proposed project would not increase roadway facilities or service capabilities that would induce unplanned growth or remove an existing obstacle to growth. Consequently, the proposed construction project is considered small, short-term in nature and would not generate substantial air quality (including greenhouse gas emission) pollutant concentrations as discussed under the Air Quality section. The proposed project would not increase long-term traffic levels and there would be no operational impacts associated with greenhouse gas emissions. Impacts are considered **less-than-significant**.

## Hazards and Hazardous Materials

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
<b>Hazards and Hazardous Materials –Would the project:</b>				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### ***Environmental Setting:***

An Initial Site Assessment (ISA) was prepared on behalf of Stanislaus County Department of Public Works. The ISA was performed in general conformance with the scope and limitations of ASTM Practice E 1527-05. The ISA identifies Recognized Environmental Conditions (RECs) for the project site that may adversely affect roadway and/or bridge construction or right-of-way acquisition. A database report was obtained from Environmental Database Resources, Inc. (EDR) consisting of information compiled from various government records, such as Geotracker, National Priorities List and solid waste information system, for information regarding the project area. Based on the results of the records review, no potential RECs have been found in the project site.

## Discussion

- a) Construction of the proposed project would potentially require the use of various types and quantities of hazardous materials. Hazardous materials that are typically used during construction include, but are not limited to, hydraulic oil, diesel fuel, grease, lubricants, solvents, and adhesives. Although equipment used during construction activities could contain various hazardous materials, these materials would be used in accordance with the manufacturers specifications and all applicable regulations. Operation of the proposed project would not involve the routine storage or use of hazardous materials. Impacts resulting from the transport, use or disposal of hazardous materials during construction and operation of the proposed project would be **less-than-significant**.
- b) As stated above, the proposed project has the potential to use a variety of hazardous materials. Additionally, an ISA was prepared to support this environmental document. Avoidance, minimization, and/or mitigation measures are proposed as part of the project for potential asbestos containing materials and lead-based paint that may be present at the proposed project site.

**Asbestos:** New uses of asbestos containing materials (ACM) were banned by the EPA in 1989. Revisions to regulations issued by the Occupational Safety & Health Administration (OSHA) on June 30, 1995, require that all thermal systems insulation, surfacing materials, and resilient flooring materials installed prior to 1981 be considered Presumed Asbestos Containing Materials (PAC) and treated accordingly. In order to rebut the designation as PAC, OSHA requires that these materials be surveyed, sampled, and assessed in accordance with 40 CFR 763 (Asbestos Hazard Emergency Response Act [AHERA]). ACMs have also been documented in the rail shim sheet packing, bearing pads, support piers, and expansion joint material of bridges. The Caltrans Historic Bridge Inventory indicates that the Hickman Road Bridge over the Tuolumne River was built in 1946; therefore due to the age and structure type (i.e. contains expansion joint material at the hinges), there is the potential to encounter ACMs during demolition of the existing bridge structure

**Lead Based Paint:** Lead has been used in commercial, residential, roadway, and ceramic paint; in electric batteries and other devices; as a gasoline additive; for weighting; in gunshot; and other purposes. It is recognized as toxic to human health and the environment and is widely regulated in the United States. Structures constructed prior to 1978 are presumed to contain lead-based paint unless proven otherwise, although structures constructed after 1978 may also contain lead-based paint (LBP). Due to the construction age of the existing structure, the presence of pavement striping and thermoplastic paint on roadways may also be of concern due to the possible use of lead-based paint. Therefore, during construction, building materials associated with the pavement striping yellow paint will be abated by a California Licensed abatement contractor and disposed of as a hazardous waste.

**Aerially Deposited Lead:** Aerially Deposited Lead (ADL) is commonly present adjacent to heavily traveled roadways in service prior to 1987 as lead has been used as a gasoline additive prior to this time. Based on our review of air photos and topographical maps, Hickman Road was historically, and is currently, a major collector route across the Tuolumne River within the City of Waterford. However, historic deposition of vehicle exhaust particulates containing lead may not be significant along the roadway shoulder, as the bridge was realigned in the 1960's. It is

unlikely that the potential exists for the soil adjacent to the bridge and roadway approaches to contain ADL.

During construction, any existing hazardous materials that may be encountered would pose a hazard for construction workers and the environment. Construction workers typically are at the greatest risk for exposure to contaminated soil. Accidents or spills during transport of hazardous materials or wastes could have the potential to expose the public and the environment to these substances.

Implementation of **Mitigation Measures HAZ-1, HAZ-2, and HAZ-3** would be required to ensure there would not be 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 and reduce the impact to a **less-than-significant** level.

- c) There are no schools within one-quarter mile radius of the project site. Therefore, there would be **no impact**.
- d) An ISA prepared for the proposed project included an extensive database records search for the project site and properties within a 1-mile radius of the project site. This project site is not included in the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. The closest water body that could be impacted by hazardous waste from construction is the Tuolumne River. As discussed in (b), avoidance, minimization, and/or mitigation measures are proposed as part of the project for potential ACMs, LBP, and ADL that may be present at the proposed project site.

Implementation of **Mitigation Measures HAZ-1, HAZ-2, and HAZ-3** would be required to ensure there would not be 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 and reduce the impact to a **less-than-significant** level.

- e) The nearest airport to the project site is the Oakdale Airport located over 8 miles north of the project site. Oakdale Airport is a County-owned, public facility located three miles southeast of the central business district of Oakdale. The project site is not located within an adopted airport land use plan. There is **no impact**.
- f) The project site is not located within the vicinity of a private airstrip. There is **no impact**.
- g) The proposed project will require removal of the existing bridge and construction of a new bridge. Traffic will be able to use the existing bridge to cross the Tuolumne River during construction of the replacement bridge. Therefore, this impact is **less-than-significant**.
- h) The proposed project is a bridge replacement that will not expose additional people or structures to the threat of fire. There is a **no impact** associated with wildland fire threat.

### ***Mitigations Measures***

**Mitigation Measure HAZ-1: ACM.** For ACMs, the contractor will conduct National Emission Standards for Hazardous Air Pollutants (NESHAP) compliance testing as part of the project startup.

**Mitigation Measure HAZ-2: LBP.** During construction, building materials associated with the pavement striping yellow paint and painted areas on the existing bridge structure will be abated by a California Licensed abatement contractor and disposed of as a hazardous waste.

**Mitigation Measure HAZ-3: Development of a Health and Safety Plan (HASP).** A HASP shall be developed for the proposed project. The HASP shall describe appropriate procedures to follow in the event that any contaminated soil or groundwater is encountered during construction activities. Any unknown substances shall be tested, handled and disposed of in accordance with appropriate federal, state and local regulations.

### ***References***

Caltrans 2016. Hickman Road Bridge Replacement Project Initial Site Assessment. September 2016.

## Hydrology and Water Quality

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
<b>Hydrology and Water Quality – Would the project:</b>				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of a site or area through the alteration of the course of a stream or river, or by other means, in a manner that would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of a site or area through the alteration of the course of a stream or river, or by other means, substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j) Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### ***Environmental Setting:***

The Tuolumne River is a perennial channel which flows for 149 miles through Central California, from the high Sierra Nevada to join the San Joaquin River in the Central Valley. Originating at over 8,000 feet above sea level in Yosemite National Park, the Tuolumne drains a rugged watershed of 1,958 square miles, carving a series of canyons through the western slope of the Sierra. While the upper Tuolumne is a fast-flowing mountain stream, the lower river crosses the broad, fertile and extensively cultivated alluvial plain that is the San Joaquin Valley before draining into the San Joaquin River. The terrain in the project site and surrounding area is generally flat, with the exception of the topography directly adjacent to the river. Elevation at river level is approximately 75 feet; surrounding elevations range from 70 feet to 160 feet.

### ***Discussion***

- a,f) The Tuolumne River is the only body of water within the project site. The reach of the Tuolumne River within the project site is a low-gradient perennial river with steep banks consisting of a series of riffles, glides, and small pools approximately 12-24 inches deep. Within the project site, the Tuolumne River watershed is largely developed, and land use in the watershed is dominated by residential, commercial, and large agricultural operations. As is the case in all watersheds, land uses within the Tuolumne River watershed heavily influence water quality. Pollutants associated with agriculture in the watershed include pesticides, herbicides, nutrients from fertilizers, salts leached from soils, and animal waste. Vehicles traveling on Hickman Road are sources of oil, grease, gasoline, heavy metals, and combustion byproducts. Water pollutants associated with residential and commercial land uses include fertilizers, herbicides, and pesticides used in landscaping, pollutants from vehicles, animal waste, and improperly disposed of household and commercial chemicals.

Development of the proposed project site has the potential to expose bare soil and potentially generate other water quality pollutants that could be exposed to precipitation and subsequent entrainment in surface runoff to the Tuolumne River. Prior to in-channel construction activities, the area of the channel where construction activities will occur will be dewatered through a stream diversion. Construction activities involving soil disturbance, excavation, cutting/filling, and grading activities could result in increased erosion and sedimentation to the Tuolumne River and waters downstream. Construction materials such as asphalt, concrete, and equipment fluids could be exposed to precipitation and subsequent runoff. If precautions are not taken to contain contaminants, construction could produce contaminated storm water runoff (nonpoint source pollution), a major contributor to the degradation of water quality.

Construction of the entire project is anticipated to take approximately eight months, with stream diversion work scheduled during the dry season between June 15 and September 30 when water temperatures are warmer and water levels are lower. The proposed project is subject to Construction General Permit (Order No. 2009-0009-DWQ [as amended by Order No. 2010- 0014-DWQ and 2012-006-DWQ]) requirements, which requires preparation and implementation of a SWPPP. The proposed project would comply with the NPDES Construction General Permit including preparing and implementing a SWPPP that identifies project specific BMPs to protect water quality during project construction. Through



implementation of these measures and **Mitigation Measure BIO-10** impacts to water quality would be reduced to **less-than-significant**.

- b) The Project site is underlain by the Modesto and Turlock Groundwater Sub-Basins in the San Joaquin Valley Groundwater Basin. Depths of the groundwater ranges from 70-100 feet below the ground surface and shallower within the river corridor at 51-75 feet. The project is considered to have high natural recharge potential because of its proximity to the river. The proposed Project would not substantially affect groundwater resources. No wells would be constructed, and construction activities would not intercept or alter groundwater recharge, discharge, or flow conditions there for the proposed Project would have a **less than significant impact** on groundwater resources.
- c-e) The proposed Project would not alter the course of the Tuolumne River, nor would it alter the existing drainage pattern of the site. The proposed project is designed to replace the existing bridge structure with one that is similar and along a similar alignment. In addition, the proposed bridge will be designed to shed storm water off the bridge and onto the surrounding area rather than directly into the Tuolumne River. The drainage of the site is not expected to result in substantial on or offsite siltation or erosion.

The proposed Project would not substantially increase the amount or rate of surface runoff such that on or off-site flooding would occur nor would it create any additional features or change the surrounding land uses in such a way that would exceed the existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff. The proposed Project would have a **less than significant impact** on drainage within the Project area.

- g-h) The proposed project will not construct housing or other structures that would result in the exposure of people or structures to 100-year flood hazards nor will it place any structures that will redirect or impede flood flows and therefore would have **no impact**.
- i) The Proposed Project is located within the inundation zone of the Don Pedro Reservoir and the FEMA 100-year flood zone. However, the primary elements of the proposed project (roadway approaches and replacement bridge) would not redirect flood flows. The new bridge would accommodate flood flows in the Tuolumne River, and the new piers and abutments will not cause an increased risk of flooding or reduction in channel capacity. Similarly, the roadway approaches and other roadway improvements related to construction of the new bridge would not impede or redirect, or cause flood flows. This impact is considered **less than significant**.
- j) The proposed Project is not located near any tidally influenced water bodies nor is it near any large bodies of water that could be affected by a tsunami or seiche. Additionally, the proposed Project is a bridge replacement and would not require any modification to nearby slopes limiting the possibility of a mudflow hazard to the Project site therefore there is **no impact**.

## ***References***

Caltrans 2016. Water Quality Assessment Report for the Hickman Road over Tuolumne River Bridge Replacement Project. May 2016.

California Department of Water Resources 2016. Flood Management: Stanislaus County. Accessed January 2017. At [http://www.water.ca.gov/floodmgmt/lrafmo/fmb/fes/awareness\\_floodplain\\_maps/stanislaus/](http://www.water.ca.gov/floodmgmt/lrafmo/fmb/fes/awareness_floodplain_maps/stanislaus/)

Department of Conservation CGS Information Warehouse: Tsunami. Accessed January 2017. At <http://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=regulatorymaps>

## Land Use and Land Use Planning

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
<b>Land Use and Land Use Planning – Would the project:</b>				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Discussion

- a) The proposed project will consist of the replacement of an existing bridge structure. The proposed project will not divide an established community. There is **no impact**.
- b) The new bridge would not interfere with the activity associated with the surrounding land uses. The proposed project does not propose any new land uses for the project site and would result in operational activities similar to existing conditions. Additionally, the proposed project will not result in any land use conflicts. The project would not conflict with any applicable land use plan, policy, or regulations. There is **no impact**.
- c) The project site is not within the jurisdiction of an adopted Habitat Conservation Plan or Natural Community Conservation Plan. Therefore, project implementation would not conflict with the provisions of an approved local, regional, or state habitat conservation plan. **No impact** would occur.

## Mineral Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
<b>Mineral Resources – Would the project:</b>				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Discussion

- a) The proposed Project is a bridge replacement project that will remove the existing bridge and construct a new bridge at the same location. Construction activities would be temporary and operation of the project would not conflict with or limit access to mineral resources. This is a **less-than-significant impact**.
- b) The Project is not located near a mineral resource recovery site delineated on any local general plan, specific plan or other land use plan. There would be **no impact**.

# Noise

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
<b>Noise – Would the project:</b>				
a) Result in exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan area, or, where such a plan has not been adopted, in an area within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project located in the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Environmental Setting

Noise is defined as unwanted sound, and thus is a subjective reaction to characteristics of a physical phenomenon. A frequency weighting measure that simulates human perception is commonly used to describe noise environments and to assess impacts on noise-sensitive areas. It has been found that A-weighting of sound levels best reflects the human ear's reduced sensitivity to low frequencies, and correlates well with human perceptions of the annoying aspects of noise. The A-weighted decibel scale (dBA) is cited in most noise criteria. The decibel notation used for sound levels describes a logarithmic relationship of acoustical energy, for example, a doubling of acoustical energy results in an increase of three dB, which is considered barely perceptible. A 10-fold increase in acoustical energy equals a ten dB change, which is subjectively like a doubling of loudness. **Table 4**, Typical Noise Levels, identifies decibel levels for common sounds heard in the environment.

**Table 4. Typical Noise Levels**

Common Outdoor Activity	Noise Level (dBA)	Common Indoor Activity
Jet flyover at 1,000 feet	110	Rock band
Gas lawnmower at 3 feet	100	
Diesel truck at 50 feet at 50 mph	90	Food blender at 3 feet
Noisy urban area, daytime	80	Garbage disposal at 3 feet
Gas lawnmower, 100 feet	70	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	60	Large business office
Quiet urban daytime	50	Dishwasher next room
Quiet urban nighttime	40	Theater, large conference room (background)
Quiet suburban nighttime		
Quiet rural nighttime	30	Library
	20	Bedroom at night, concert hall (background)
	10	Broadcast/recording studio
Lowest threshold of human hearing	0	Lowest threshold of human hearing

Source: Caltrans Technical Noise Supplement, 2013

Several time-averaged scales represent noise environments and consequences of human activities. The most commonly used noise descriptors are equivalent A-weighted sound level over a given time period (Leq); average day-night 24-hour average sound level (Ldn) with a nighttime increase of 10 dBA to account for sensitivity to noise during the nighttime; and community noise equivalent level (CNEL), also a 24-hour average that includes both an evening and a nighttime weighting. Noise levels are generally considered low when ambient levels are below 45 dBA, moderate in the 45 - 60 dBA range, and high above 60 dBA. Although people often accept the higher levels associated with very noisy urban residential and residential-commercial zones, they nevertheless are considered to be adverse levels of noise with respect to public health because of sleep interference.

Land use within and adjacent to the project corridor is commercial-retail, recreational, public use facilities and some agricultural. During construction of the proposed project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Noise from construction activities generally attenuates at a rate of 6 to 7.5 dBA per doubling distance. Based on the proposed project site layout and terrain, an attenuation of 6 dBA is assumed.

## Discussion

- a) **Construction Noise Effects.** Noise within Stanislaus County is regulated by Chapter 10.46 of the Municipal Code. The Ordinance states that "It is unlawful for any person at any location within the unincorporated area of the County to create any noise or to allow the creation of any noise which causes the exterior noise level when measured at any property situated in either the incorporated or unincorporated area of the County to exceed the noise level standards." However, the County Code Standards are not applicable to noise from activities on or in publicly owned property and facilities, or by public employees while in the authorized discharge of their responsibilities.

Noise at the construction site will be intermittent and its intensity will vary. The degree of construction noise impacts may vary for different areas of the project study area and also vary depending on the construction activities.

Roadway and/or bridge construction is accomplished in several different phases. General construction phases for typical roadway/highway projects and their estimated overall noise levels are summarized in **Table 5** below.

**Table 5. Typical Construction Phases and Noise Levels**

Construction Phase	Noise Level (dBA, Leq)
Ground Clearing	84
Excavation	88/78
Foundations	88
Erection	79/78
Finishing	84

Source: U.S. EPA, 1971.

During construction of the proposed project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction and some of the sensitive receptors in residential developments surrounding the project study area may be temporarily affected. The majority of construction noise will be from clearing of the project site along with the placement of the new bridge abutments and structure. Pile driving is not proposed as part of the project.

**Table 6** summarizes noise levels produced by construction equipment that is commonly used on bridge replacement projects and is representative of the equipment necessary for proposed project construction. Construction equipment is expected to generate noise levels ranging from 80 to 90 dB at a distance of 50 feet and noise produced by construction equipment would be reduced over distance at a rate of about 6 dB per doubling of distance.

**Table 6. Typical Construction Equipment Noise Levels**

Construction Equipment	Noise Level (dBA, Leq at 50 feet)
Scrapers	89
Bulldozers	85
Heavy trucks	88
Backhoe	80
Pneumatic Tools	85
Concrete Pump	82

Source: Federal Transit Administration 1995.

No adverse noise impacts from construction are anticipated because construction would be conducted in accordance with Caltrans Standard Specifications Section 14-8.02, 42-1.02, applicable local noise standards and control measures discussed below. Construction noise would be short-term and intermittent. Construction operations are anticipated during daylight hours only (Monday to Friday, 7:00 AM to 8:00 PM). This impact would be **less-than-significant** with implementation of the **Mitigation Measure NO-1. Operational Noise Effects.**

The proposed project would have no long-term effects on noise levels, since the proposed project would not increase capacity along the roadway. Once construction is completed, noise levels would return to levels similar to the existing noise environment.

- b) Equipment associated with high vibration levels (pile drivers) will not be used for the proposed project. There are several different methods that are used to quantify vibration. The threshold of perception for humans is around 65 VdB, and human response to vibration is not usually significant unless the vibration exceeds 70 VdB. Rapid transit or light rail systems typically

generate vibration levels of 70 VdB or more near their tracks. On the other hand, buses and trucks rarely create vibration that exceeds 70 VdB unless there are bumps in the road (FTA, 2006).

Construction of the project would use bulldozers and other heavy tracked construction equipment, which may generate a groundborne vibration level of 90 VdB at 50 feet from source. The majority of construction noise will be from clearing of the project work site along with the placement of the new bridge abutments and structure. Construction of the project is expected to last six months. With the implementation of **Mitigation Measure NO-1**, the project would have a **less-than-significant impact**.

- c) The proposed project would have no long-term effects on noise levels. Noise levels would return to levels similar to the existing noise environment upon completion of the project. There is **no impact** to long-term noise levels.
- d) During construction, the proposed project would temporarily increase ambient noise levels in the project vicinity. See the discussion regarding construction noise under a) above. This impact would be **less-than-significant** with implementation of **Mitigation Measure NO-1**.
- e) There are no airports within two miles of the proposed project. There would be **no impact** from airports upon people residing or working in the vicinity of the proposed project.
- f) There are no private airstrips within two miles of the proposed project. There would be **no impact** from airstrips upon people residing or working in the vicinity of the proposed project.

## ***Mitigation Measures***

### **Mitigation Measure NO-1: Elevated Noise Level during Construction.**

During construction, the noise level may be temporarily elevated. To minimize the impact, all construction in or adjacent to residential areas shall follow the following procedures for noise control: Construction operations shall be limited to Monday through Friday, 7:00 AM to 8:00 PM. The following control measures shall be implemented in order to minimize noise and vibration disturbances at sensitive receptors during periods of construction

- Use newer equipment with improved muffling and ensure that all equipment items have the manufacturers' recommended noise abatement measures, such as mufflers, engine enclosures, and engine vibration isolators intact and operational. Newer equipment will generally be quieter in operation than older equipment. All construction equipment should be inspected at periodic intervals to ensure proper maintenance and presence of noise control devices (e.g., mufflers and shrouding, etc.).
- Utilize construction methods or equipment that will provide the lowest level of noise and ground vibration impact such as alternative low noise pile installation methods.
- Turn off idling equipment.

## ***References***

Bolt, Beranek, and Newman, 1971. *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances.*

Cunniff, Patrick F., 1977. *Environmental Noise Pollution.*



Federal Transit Administration (FTA), 2006. *Transit Noise and Vibration Impact Assessment*. May 2006.

*Stanislaus County Municipal Code. Code of Ordinances. July 2016*

U.S. Environmental Protection Agency (EPA), 1971. *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances*. December 1971.

## Population and Housing

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
<b>Population and Housing – Would the project:</b>				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### ***Environmental Setting:***

According to the 2010 Census data, the City of Waterford has a total of 8,456 people. There is a total of 2,665 housing units within the City.

### ***Discussion***

- a) The proposed project would not result in the permanent creation of new jobs that would induce substantial population growth. Additionally, the bridge will remain a two-lane road and will not encourage population growth within the surrounding communities adjacent to the project site. This impact is **less-than-significant**.
- b,c) The proposed project would be constructed in place of an existing bridge and would not displace any housing or people. Consequently, replacement housing would not be required. There is **no impact**.

## Public Services

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
<b>Public Services – Would the project:</b>				
a) Result in substantial adverse physical impacts associated with the provision of, or the 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 following public services:				
i. Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. Parks?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
v. Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Discussion

- ai) Fire service is provided by Stanislaus Consolidated Fire Protection District. They provide response to fire, medical, and hazardous material emergencies in the project area. The closest fire department is Stanislaus Consolidated Fire Station 34 located on 321 E Street, Waterford; less than 0.5 miles from the project site.

Construction of the proposed project could result in accident or emergency incidents that would require emergency response, such as fire services; however, construction activities will be short-term and minimal. The proposed project is a bridge improvement project that would not create additional demands on the local fire district during operations. There is a **less-than-significant impact**.

Emergency access to the vicinity of the project site will continue during construction. The bridge will remain open during construction. There is a **less-than-significant impact**.

- aii) The Stanislaus County Sheriff's Department staffs the Waterford Police Services which provides law enforcement services to the City. The Waterford Police Department is located on 312 E Street, approximately 0.4 miles from the project site.

Construction of the proposed project may result in accident or emergency incidents that would require police services; however, construction activities will be short-term and minimal. The proposed project is a bridge replacement project that would not create additional demands on the local police district during operations. There is a **less-than-significant impact**.

Emergency access to the vicinity of the project will remain open during construction. This is a **less-than-significant level**.

aiii) The proposed project is located approximately 0.3 miles southeast of the Connecting Waters Charter School; 1 mile east southeast of the Moon School, the Waterford School District, and the Lucille Whitehead Intermediate School; and 0.9 miles east of the Waterford High School. The proposed project is a bridge replacement project and would not generate any additional demand for schools. During construction, traffic will still be able to use the existing bridge and therefore there would be **no impact** to access to schools.

aiv) The nearest park is the Tuolumne River Parkway where the northern approach of Hickman Bridge is immediately adjacent to the park. Temporary construction easements will be located on portions of the Tuolumne River Parkway adjacent to the project location. In addition, the Project will require permanent right of way take on the NE quadrant of the bridge on Assessor's Parcel Number 080-035-009. The area is approximately 12,243 square feet or 0.28 acres and is required to accommodate reconstruction of the new bridge. The permanently impacted portion of the trail will be reconstructed on a new alignment that will restore the use of the resource.

Any newly planted trees within the construction staging area will be hand dug and placed into planters during the winter months preceding construction. The trees will be irrigated and cared for by a qualified professional to ensure survival during construction. If the trees do not survive repotting prior to construction and/or replanting after construction is complete, they will be replaced at a 1:1 ratio. Benches located along the trail will also have to be removed, but all benches will be reinserted at the end of construction at the same location without damages. Implementation of **Mitigation Measure PUB-1** would ensure that impacts to the Tuolumne River Parkway are **less-than-significant**.

av) The proposed project would have **no impact** on any other public services.

### ***Mitigation Measures***

**Mitigation Measure PUB-1:** The County will implement measures to avoid and minimize potential impacts on the Tuolumne River Parkway. Prior to conducting work and during work, the following measures will be implemented:

- Determine an area of restoration mitigation
- Remove non-native species from the determined area and replace them with native species at a determined ratio
- The Contractor shall install signage along the temporary occupancy area notifying that the area will be temporarily closed during construction activities.
- Any newly planted trees within the construction staging area will be hand dug and placed into planters during the winter months preceding construction. The trees will be irrigated and cared for by a qualified professional to ensure survival during construction. If the trees do not survive repotting prior to construction and/or replanting after construction is complete, they will be replaced at a 1:1 ratio.

### ***References***

2017. Stanislaus Consolidated Fire. Accessed January 2017 at <http://www.scfpd.net/index.cfm?section=1>

2017. The Stanislaus County Sheriff's Department Waterford Police Services. Accessed January 2017 at <https://www.scsdonline.com/contract-cities/waterford/>

Caltrans, 2017. Section 4(f) No Use Evaluation Memorandum Hickman Road over Tuolumne River Bridge Replacement Project; January 2017

## Recreation

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
<b>Recreation – Would the project:</b>				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Discussion

- a) The proposed project is a bridge replacement project; it would not contribute to an increase in the local population, nor would it increase demand on existing neighborhoods. No additional regional parks would be created. The proposed project would have **no impact** on the use of existing neighborhood and regional parks.
- b) The nearest park is the Tuolumne River Parkway where the northern approach of Hickman Bridge is immediately adjacent to the park. Temporary construction easements will be located on portions of the Tuolumne River Parkway adjacent to the project location. In addition, the Project will require permanent right of way take on the NE quadrant of the bridge on Assessor's Parcel Number 080-035-009. The area is approximately 12,243 square feet or 0.28 acres and is required to accommodate reconstruction of the new bridge. The permanently impacted portion of the trail will be reconstructed on a new alignment that will restore the use of the resource.

Any newly planted trees within the construction staging area will be hand dug and placed into planters during the winter months preceding construction. The trees will be irrigated and cared for by a qualified professional to ensure survival during construction. If the trees do not survive repotting prior to construction and/or replanting after construction is complete, they will be replaced at a 1:1 ratio. Benches located along the trail will also have to be removed, but all benches will be reinserted at the end of construction at the same location without damages. Implementation of **Mitigation Measure PUB-1** would ensure that impacts to the Tuolumne River Parkway are **less-than-significant**.

## References

Caltrans, 2017. Section 4(f) No Use Evaluation Memorandum Hickman Road over Tuolumne River Bridge Replacement Project; January 2017

## Transportation and Traffic

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
<b>Transportation and Traffic – Would the project:</b>				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the City congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Discussion

- a,b) The purpose of the project is to provide adequate and safe vehicle access and provide a structure that will meet current design standards for the traffic utilizing this bridge. The proposed project will not create additional lanes, so the Average Daily Traffic Volume is expected to be consistent with current volumes on the existing bridge. The project is not anticipated to create any long term impacts to traffic circulation in the area, as the proposed project will not increase roadway capacity or change traffic patterns.

The proposed project will not conflict with any plan or policy established for measuring the performance of the circulation system. Additionally, the proposed project would not result in impacts to level of service along Hickman Road. This is a **less-than-significant impact**.

- c) The proposed project does not include structures or uses that would affect air traffic patterns, nor is an airport located in proximity to the project site. Therefore, the proposed project would not result in substantial safety risks related to air traffic and would have **no impact**.

- d) One of the primary purposes of the proposed project is to improve safe access to the bridge for vehicles and pedestrians. Traffic hazards will not be increased as a result of the proposed project, and therefore there is **no impact**.
- e) Hickman Road will remain open during construction therefore **no impact** to emergency access will occur.
- f) The proposed project will increase pedestrian safety by including one 5-foot wide sidewalk along the upstream side of the bridge. The proposed project will not conflict with adopted policies, plans, or programs supporting alternative transportation. There is **no impact**.



## Tribal Cultural Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
<b>Tribal Cultural Resources – Would the project:</b>				
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resource 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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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, the lead agency shall consider the significance of the resources to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Setting

Assembly Bill 52 (AB52) went into effect on July 1, 2015 and establishes a consultation process with all California Native American Tribes on the NAHC List for Federal and Non-Federal Tribes. Once the Tribe is notified of the project, the Tribe has 30 days to request consultation. The consultation process ends when either the parties agree to mitigation measures or avoid a significant effect on Tribal Cultural resources or a party, acting in good faith and after reasonable effort concludes that mutual agreement cannot be reached. Stanislaus County has taken the lead on AB52 Consultation. The NAHC provided a list of Native American individuals and organizations that might have concerns with or interest in the proposed Project. The list included one interested organization, Torres Martinez Desert Cahuilla Indians. A letter was mailed to Mr. Michael Mirelez, Cultural Resource Coordinator with the Torres Martinez Desert Cahuilla Indians on January 31, 2017. No response was received.

### Discussion

- a) On December 17, 2015, a letter was sent describing the Project with maps depicting the Study Area to the Native American Heritage Commission (NAHC) in Sacramento asking them to review their Sacred Lands File for any Native American cultural resources that might be affected by the Project. In an email dated December 30, 2015, Ms. Katy Sanchez, NAHC Associate Environmental Planner, stated that a search of the Sacred Lands File did not “indicate the presence of Native American cultural resources in the immediate project area.” Ms. Sanchez also provided a list of Native Americans who might have additional information or concerns about the Project. Ms. Katherine Perez of the North Valley Yokuts Tribe, Ms. Lois Martin and Mr. Les James, both of the

Southern Sierra Miwuk Nation were contacted regarding the proposed project. Neither Ms. Perez nor Mr. James responded to the request. Ms. Martin responded on January 20, 2016 stating that she did not have any information regarding the project at that time. There is no evidence to indicate presence of Native American cultural resources in the immediate area. Therefore, the proposed project would result in **no impact** on tribal cultural resources.

## Utilities and Service Systems

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
<b>Utilities and Service Systems – Would the project:</b>				
a) Conflict with wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in a determination by the wastewater treatment provider that would serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Discussion

- a) The proposed project would not generate any wastewater. There is **no impact**.
- b) The proposed project would not require the construction of additional wastewater or water treatment facilities. There would be **no impact**.
- c) The proposed project does not require construction of new storm water drainage facilities, or expansion of existing facilities. There would be **no impact**.
- d) The proposed project consists of demolition of an existing bridge and construction of a new bridge and would not require water supply however some non-potable water use during construction for dust control will be required. This is a **less-than-significant impact**.

- e) The proposed project does not require wastewater treatment services. There is **no impact** to wastewater treatment facilities.
- f) The proposed project would generate waste from temporary construction activities and demolition of the Hickman Road Bridge. Solid waste associated with construction activities will be handled by Turlock Scavenger located on 1200 S Walnut Rd, Turlock, California. Turlock Scavenger has the capacity to accept waste generated by the proposed project. The project would not result in long-term demands for solid waste disposal services. This is a **less-than-significant impact**.
- g) The proposed project would comply with all federal, state, and local statutes and regulations related to solid waste. There is **no impact**.

## Mandatory Findings of Significance

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
<b>Mandatory Findings of Significance – Would the project:</b>				
a) 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### Discussion

- a) Per the impact discussions in the Biological Resources, Hydrology and Water Quality, Noise, Cultural Resources, Hazardous Material, and Public Services sections, the potential of the proposed project to substantially degrade the environment is **less-than-significant with incorporated mitigation measures**.
- b) The project site is located within Stanislaus County near the City of Waterford. The purpose of the proposed project is to provide safe vehicle access and meet current design standards for the Hickman Road Bridge. The impacts of the proposed project are mitigated to a less-than-significant level, limited to the construction phase of the proposed project, and generally site specific. No other projects are proposed that would overlap or interact with the proposed project. The cumulative impact of the proposed project is **less-than-significant**.
- c) The proposed project would not cause substantial adverse effects on human beings. Effects related to cultural resources, biological resources, hazardous materials, hydrology and water quality, geologic hazards, air quality, transportation and noise are discussed above, and would not result in any significant and unavoidable impacts. This impact is considered **less-than-significant**.