

**Initial Study/
Mitigated Negative Declaration**

for the

**County Road 40 over Cache Creek
Bridge (22C-0091) Replacement Project**

September 2020

**Yolo County
Department of Community Services
Public Works Division
292 West Beamer Street
Woodland, CA 95695**

Table of Contents

| | |
|---|----|
| 1. Introduction..... | 1 |
| 2. Regulatory Framework | 1 |
| 3. Environmental Checklist Form | 2 |
| 3.1 Environmental Factors Potentially Affected | 4 |
| 3.2 Environmental Determination | 4 |
| 4. Project Description..... | 5 |
| 4.1 Location..... | 5 |
| 4.2 History | 5 |
| 4.3 Project Purpose and Need | 5 |
| 4.4 Project Description..... | 9 |
| 4.4.1 Hydraulic Clearance and Railing | 9 |
| 4.4.2 Recreation | 9 |
| 4.4.3 Road and Road Approaches..... | 9 |
| 4.4.4 Construction Access and Staging..... | 9 |
| 4.4.5 Retaining Walls..... | 10 |
| 4.4.6 Bridge Alternatives | 10 |
| 4.4.7 Right of Way..... | 10 |
| 4.4.8 Detour | 10 |
| 4.4.9 Utilities..... | 10 |
| 4.4.10 Equipment..... | 10 |
| 4.4.11 Scour and Rock Slope Protection | 11 |
| 4.4.1 Diversion and Dewatering | 11 |
| 4.4.2 Site Restoration..... | 12 |
| 4.5 Construction Contract | 12 |
| 4.6 Project Schedule..... | 12 |
| 4.7 Applicant Proposed Measures | 12 |
| 5. Initial Study Checklist and Supporting Documentation | 14 |
| 5.1 Initial Study Checklist..... | 14 |
| 5.2 Setting, Impacts, and Mitigation Measures..... | 15 |

| | | |
|--------|--|----|
| 5.2.1 | Aesthetics | 15 |
| 5.2.2 | Agricultural and Forestry Resources | 18 |
| 5.2.3 | Air Quality | 19 |
| 5.2.4 | Biological Resources | 25 |
| 5.2.5 | Cultural Resources | 38 |
| 5.2.6 | Energy | 41 |
| 5.2.7 | Geology and Soils | 41 |
| 5.2.8 | Greenhouse Gas Emissions | 46 |
| 5.2.9 | Hazards and Hazardous Materials | 47 |
| 5.2.10 | Hydrology and Water Quality | 51 |
| 5.2.11 | Land Use and Planning | 54 |
| 5.2.12 | Mineral Resources | 54 |
| 5.2.13 | Noise | 55 |
| 5.2.14 | Population and Housing | 58 |
| 5.2.15 | Public Services | 58 |
| 5.2.16 | Recreation | 59 |
| 5.2.17 | Transportation | 60 |
| 5.2.18 | Tribal Cultural Resources | 62 |
| 5.2.19 | Utilities/ Service Systems | 63 |
| 5.2.20 | Wildfire | 64 |
| 5.2.21 | Mandatory Findings of Significance | 66 |
| 6. | Summary of Applicant Proposed Measures | 68 |
| 7. | Summary of Mitigation Measures | 71 |
| 8. | Supporting Information Sources | 77 |
| 8.1 | Report Preparation | 77 |
| 8.2 | References | 77 |

Figures

| | |
|--------------------------------------|---|
| Figure 1. Project Location Map | 7 |
| Figure 2. Aerial Photograph..... | 8 |

Tables

| | |
|--|----|
| Table 1. Attainment Status for SVAB in Yolo County (CARB 2020)..... | 20 |
| Table 2. Construction Equipment and Use Assumptions. | 22 |
| Table 3. Estimated Construction Emissions | 23 |
| Table 4. Land Cover Types in the Project area and Yolo HCP/NCCP Status..... | 28 |
| Table 5. AASHTO and USCS soil classes for Project area..... | 45 |
| Table 6. Potential Equipment Used During Construction and Maximum Noise Level..... | 57 |

Appendix

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|---|
| Appendix A: Letter from Yocha Dehe Wintun Nation to Caltrans dated 5 September 2019 |
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1. Introduction

The Yolo County Department of Community Services, Public Works Division (County), the State of California Department of Forestry and Fire Protection (CalFire), and the California Department of Transportation (Caltrans) Division of Local Assistance propose to replace the existing County Road 40 (CR 40) Low Water Bridge (22C-0091) over Cache Creek. The proposed replacement structure will be a new three-span, cast-in-place, reinforced concrete slab superstructure supported on two-column pile extension bents and seat type abutments founded on 30-inch cast-in-drilled-hole concrete piles. The proposed bridge will meet Caltrans and the American Association of State Highway and Transportation Officials (AASHTO) Load and Resistance Factor Design (LRFD) Bridge Design Specifications. The structure will be designed for HL93 legal loads, permit vehicles, and provisions for a future asphalt concrete (AC) overlay.

2. Regulatory Framework

The Yolo County Department of Community Services has determined that the CR 40 over Cache Creek Bridge (22C-0091) Replacement Project meets the California Environmental Quality Act (CEQA) Guidelines Section 15378 definition of a project. CEQA Guidelines Section 15378 defines a project as the following:

"Project" means the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment.

In accordance with the CEQA (Public Resources Code Sections 21000-21177), this Initial Study has been prepared to identify potentially significant impacts upon the environment resulting from the construction, operation, and maintenance of the CR 40 over Cache Creek Bridge (22C-0091) Replacement Project (Project or proposed Project). In accordance with Section 15063 of the State CEQA Guidelines, this Initial Study is a preliminary analysis prepared by the Yolo County Department of Community Services as Lead Agency to inform the Lead Agency decision makers, other affected agencies, and the public, of potential environmental impacts associated with the implementation of the Project.

3. Environmental Checklist Form

| | |
|--|---|
| Project Title | County Road 40 over Cache Creek Bridge (22C-0091) Replacement Project (Project) |
| Lead Agency Name and Address | Yolo County Department of Community Services 292 West Beamer Street Woodland, CA, 95695-2598 |
| Contact Person and Phone Number | Stephanie Cormier, Principal Planner (530) 666-8041 |
| Project Location | Bridge (22C-0091) is located in rural northwestern Yolo County, near the intersection of County Road (CR) 40 and California State Route (CA)-16, approximately 5 miles northwest of the unincorporated community of Rumsey. |
| Project Sponsor's Name and Address | Todd Riddiough, P.E., Senior Civil Engineer Yolo County Department of Community Services 292 W. Beamer St. Woodland, CA 95695 |
| General Plan Designation | 018-270-016: Open Space |
| Zoning | County Road Right of Way Underlying Assessor's Parcel Number (APN) 018-270-016: Public Open Space (POS) |
| Project Description Summary: The Yolo County Department of Community Services, Public Works Division (County), the State of California Department of Forestry and Fire Protection (CalFire), and the California Department of Transportation (Caltrans) Division of Local Assistance propose to replace the existing County Road 40 (CR 40) Low Water Bridge (22C-0091) over Cache Creek. The bridge is owned and maintained by the County Parks Division of the General Services Department. The County proposes replacing the existing structurally deficient low-water crossing bridge (22C-0091) over Cache Creek, which is currently closed to vehicular traffic, with a new structure on an improved alignment at essentially the same location as the existing bridge. The replacement structure is anticipated to be a three-span, cast-in-place, reinforced concrete slab superstructure supported on two-column pile extension bents and seat type abutments founded on 30-inch cast-in-drilled-hole concrete piles. Construction of the proposed bridge is planned to commence in spring 2021 or later. A more detailed project description is provided in Section 4 of this document. | |
| Surrounding Land Uses and Setting: Land use/ types surrounding (within 5 miles) the Project area consists of oak-foothill pine, valley foothill riparian, undeveloped grazing land, orchards, agricultural facilities, hiking trails, other park uses, open space, and a few rural residences. | |
| Other Public Agencies Whose Approval May Be Required (e.g., permits, financing approval, or participation agreement.): | |
| <ul style="list-style-type: none"> • Caltrans — National Environmental Policy Act (NEPA) Categorical Exclusion • U.S. Army Corps of Engineers — Section 404 Clean Water Act Nationwide Permit • Central Valley Regional Water Quality Control Board — Section 401 Water Quality Certification • State Water Resources Control Board – Section 402 NPDES Construction General Permit | |

- California Department of Fish and Wildlife — Streambed Alteration Agreement
- California Air Resources Board — Asbestos NESHAP Notification Of Demolition & Renovation

Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?:

Letters and notification emails requesting consultation were sent 23 April 2019, with follow-up phone calls on 12 May 2019. Yocha Dehe Wintun Nation (Yocha Dehe) responded with a request to formally consult with the lead agencies. The Kletsel Dehe Band of Wintun Indians responded that they have no comments at this time, and United Auburn Indian Community did not respond.

On 24 June 2019 a meeting to discuss the Project was held at Yocha Dehe’s tribal headquarters with two tribal members, Yolo County staff, and Far Western Anthropological Research Group, Inc. (Far Western) staff. Based on concerns expressed by Yocha Dehe, the County revised the Project design by moving the proposed bridge crossing east, in line with the original County Road 40 Bridge and road alignment. The redesign largely avoids the area of Yocha Dehe concern. The County also agreed to provide additional protections for the resources including cultural sensitivity training, installation of a boulder barrier along the northern edge of CR 40 south of Cache Creek, and to place a permanent layer of fill on the existing CR 40 road surface within the project limits south of Cache Creek.

A field meeting was held on Monday 4 November 2019 to review the proposed changes to the project design and footprint and discuss the results of subsurface testing. In attendance were two tribal members, Yolo County staff, Caltrans staff, and Far Western staff. In a letter dated 5 September 2019 the Yocha Dehe tribe sent a letter to Caltrans describing the AB 52 consultation and coordination between Yocha Dehe and the County (Appendix A). The letter states that, with the design revisions and other protective measures made during the AB-52 consultation with the County, additional archeological testing of the site is not needed.

3.1 Environmental Factors Potentially Affected


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

| | |
|---|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Land Use and Planning |
| <input type="checkbox"/> Agricultural Resources | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Air Quality | <input type="checkbox"/> Noise |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Population and Housing |
| <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Public Services |
| <input checked="" type="checkbox"/> Tribal Cultural Resources | <input checked="" type="checkbox"/> Recreation |
| <input type="checkbox"/> Energy | <input type="checkbox"/> Transportation/Traffic |
| <input checked="" type="checkbox"/> Geology and Soils | <input type="checkbox"/> Utilities and Service Systems |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input checked="" type="checkbox"/> Wildfire |
| <input type="checkbox"/> Hazards and Hazardous Materials | <input checked="" type="checkbox"/> Mandatory Findings of Significance |
| <input type="checkbox"/> Hydrology and Water Quality | <input type="checkbox"/> None Identified |

3.2 Environmental Determination

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the project-specific mitigation measures described in Section III have been added to the project. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the Project MAY have a “Potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature: 

Date: 9 Sept 2020

Name and Title: Stephanie Cormier, Principal Planner

4. Project Description

4.1 Location

The Project is located in rural northwestern Yolo County, near the intersection of County Road (CR) 40 and California State Route (CA)-16, approximately 5 miles northwest of the unincorporated community of Rumsey (Figures 1 and 2). The CR 40 bridge connects CA-16 to rural areas of Yolo, Lake, and Napa counties, west of Cache Creek.

The Project occurs on the Glascock Mountain quad (T12N, R4W, Sections 4 and 9, Mt. Diablo Base and Meridian) and is in the Upper Cache Hydrologic Unit (Hydrologic Unit Code 18020116). Cache Creek flows east through the Project area, paralleling CA-16. The CR 40 crossing of Cache Creek is located in the Yolo County Cache Creek Regional Park. The Project area includes approximately 1,850 linear feet of CR 40, a portion of Cache Creek, and a portion of the Park parking lot.

4.2 History

Constructed in 1930, the existing CR 40 bridge over Cache Creek consists of a 115-foot long, 22-foot wide, six-cell, reinforced concrete box culvert with three open cells. Three of the six cells were plugged with concrete sometime between 1930 and 1979 when Caltrans began biannual inspections of the structure. The north side of the bridge is accessed via CR 40, a single lane dirt/gravel road that connects to CA-16. When it is not inundated, the bridge still provides pedestrian access to public lands, such as recreational trails and parks. The bridge may be inundated during the winter due to storm events and in spring and summer due to water releases from the Cache Creek Dam, upstream of the bridge near Clear Lake.

The most recent Caltrans inspection report rated the bridge sufficiency at 31.8. The safe load capacity was rated at zero tons, deeming the bridge is unsafe and inoperable to vehicular traffic. The structurally deficient bridge was closed to vehicular traffic in 2008. Before its closure, the bridge served as one of the main connectors between the more rural areas of northern Yolo County, and the eastern mountainous regions of Lake and Napa counties.

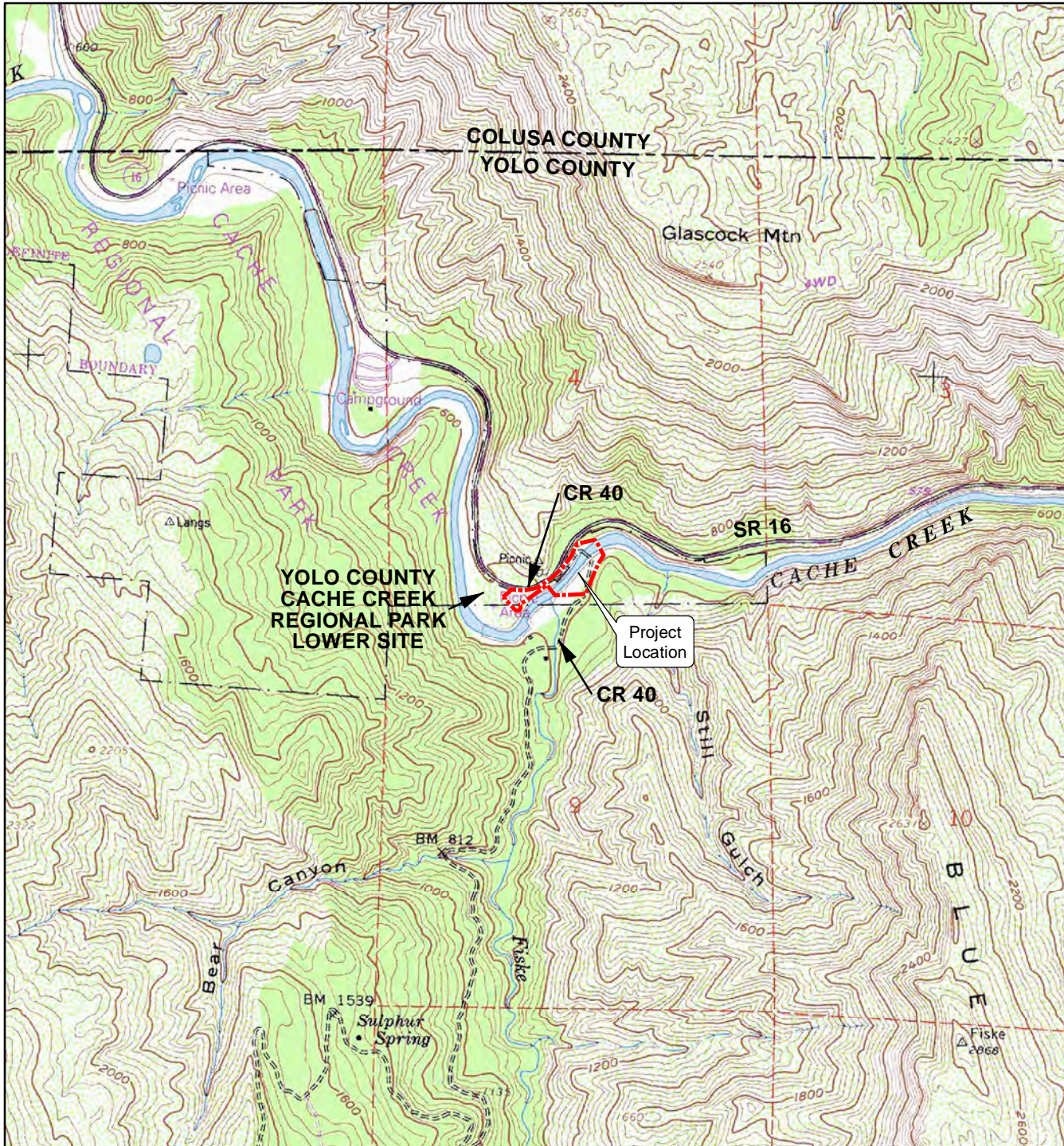
The County ceased maintenance on CR40 in approximately 2009. Because maintenance has been ceased, the County is not planning to open the road to the general motoring public. Pedestrian, ATV, horseback access will continue to be allowed.

The County determined that it is not practical to construct the replacement bridge at a profile grade that will pass the design flows. For the new bridge to pass the design flows with the required freeboard clearances, the bridge would need to be significantly raised, which would result in a much longer and costly bridge.

4.3 Project Purpose and Need

The purpose of the proposed Project is to increase public safety and provide a bridge that will meet Caltrans and the American Association of State Highway and Transportation Officials (AASHTO) Load and Resistance Factor Design (LRFD) Bridge Design Specifications. Due to the closure, in 2015 CalFire was forced to make a 50-mile detour to reach the fire lines during the 'Rocky Fire' (LCN 2017). The low profile of the existing bridge also causes an impedence and potential danger to recreational rafters (LCN

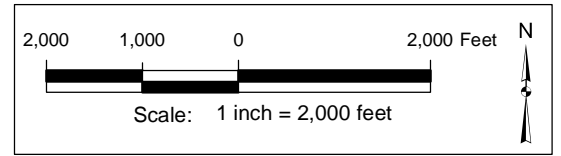
2017). The bridge replacement is needed to provide CalFire and other emergency responders access across the creek during wildfires or other emergency events. The proposed bridge is also needed to provide County personnel vehicular access to County lands. The proposed bridge design will provide a minimum freeboard clearance for recreational rafters during the summer irrigation flows. The structure will be designed for HL93 legal loads, permit vehicles, and provisions for a future asphalt concrete (AC) overlay.



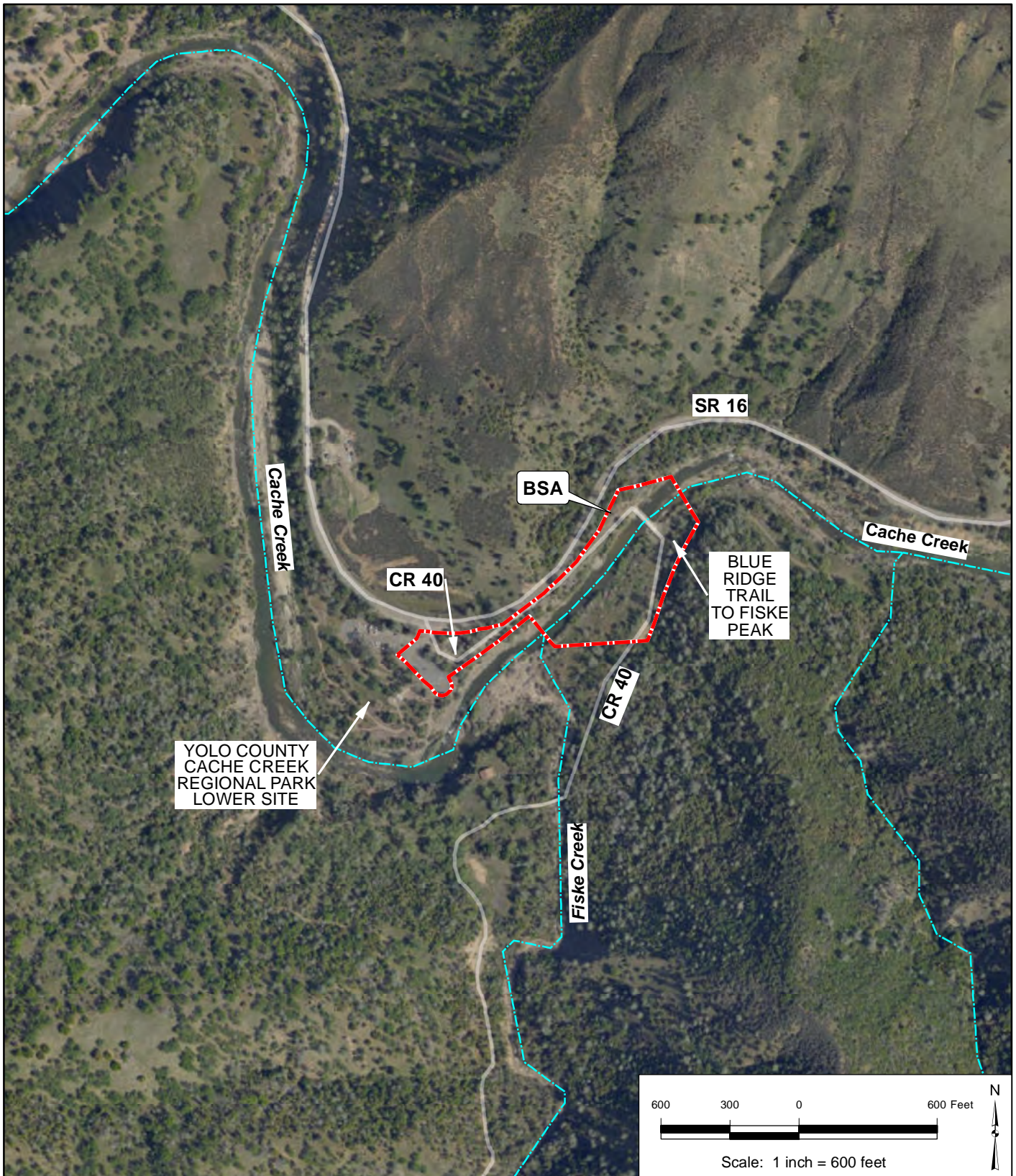
County Road 40 Low Water Bridge
over Cache Creek (No. 22C-0091)
Replacement Project
Yolo County, CA
September 2019

Figure 1. Location Map

 Project Location



Glascok Mtn., CA (1993)
USGS 7.5' Quadrangle Topographic DRG
7.5 Minute (C) Series, Albers Nad83 Mosaics (MrSID)
CA Spatial Library (CASIL)
o_nw0302.sid



County Road 40 Low Water Bridge
 over Cache Creek (No. 22C-0091)
 Replacement Project
 Yolo County, CA
 September 2019

 Biological Study Area (BSA)

Aerial Photograph:
 13 April 2018
 Yolo County Orthos, Yolo County 2018
 ESRI Arcmap Basemap Layer
 Yolo County Road Centerlines (13 June 2017)

Figure 2. Aerial Photograph

4.4 Project Description

Yolo County proposes to replace the existing structurally deficient CR 40 bridge (22C-0091) over Cache Creek with a new three-span, cast-in-place, reinforced concrete slab superstructure supported on two-column pile extension bents and seat type abutments founded on 30-inch cast-in-drilled-hole concrete piles. The maximum depth of excavation for the bridge piles is approximately 30 feet. The replacement bridge will be constructed on an improved alignment at essentially the same location as the existing bridge. The bridge will provide a minimum clear width of 20-feet, the same as the existing structure. The structure will be constructed with a horizontal curve radius of 132-feet, to accommodate CalFire's 72-foot long tractor and trailer vehicle used to transport their fire-fighting equipment across Cache Creek.

4.4.1 Hydraulic Clearance and Railing

Due to the limited traffic use of the bridge, a bridge that satisfies the design hydraulic clearances is not proposed. The 50-year and 100-year events are expected to overtop the bridge by approximately 8 and 13-feet respectively. The County will request a design exception for hydraulic clearances.

Due to bridge inundation during high design flows, the County is proposing to use the new California State Type ST-75 bridge rail with tubular bicycle railing. The Type ST-75 bridge rail will allow inundation flows to pass through the rail members. Water will drain off the bridge through scuppers in the bridge barrier railing curbs and off the easterly approach roadway. The heavy steel tube rails are expected to undergo little to no damage when subjected to drift impacts.

4.4.2 Recreation

Pedestrians and bicyclists, as well as ATV users and equestrians will use the proposed replacement bridge to access recreational trails, parks, and the southeast bank of Cache Creek. The proposed bridge will provide a minimum freeboard clearance of 8-feet for recreational rafters during summer irrigation flows of 1,000 cubic feet per second (cfs) in Cache Creek. During construction, portage signage for recreational rafters will direct them out of Cache Creek upstream of the construction zone and around the bridge construction site to a Creek entrance location downstream of the existing bridge.

4.4.3 Road and Road Approaches

The existing CR 40 is a dirt road with an approximate width of 14-feet. No widening of the existing road is proposed. Roadway approach work will be limited to tying into existing grade. Abutment 1 is located on the north side of the creek, Abutment 4 is located on the south side of the creek, and Bent 2 and Bent 3 are located within the creek channel. The roadway approach work extending west from Abutment 1 will tie into existing grade approximately 150-feet from the bridge. The roadway approach work extending west from Abutment 4 will tie into existing grade approximately 350-feet from the bridge. Both approach roadways will be paved for water quality, to ensure roadway stability during inundation flows, as well as be graded for drainage. The approach roadway from Abutment 4 and placement of large rocks along the edge of the roadway is based on a request from the Yocha Dehe Wintun Nation. Due to limited usage of the road, no bridge approach guardrails are proposed.

4.4.4 Construction Access and Staging

Construction staging will occur primarily at the southern half of the Cache Creek Regional Park Lower Parking Lot. Staging may also occur on CR 40 north and south of the bridge within the Project limits. Due to a lack of practicable alternate access routes to the project area, a temporary access bridge crossing Cache

Creek will likely be constructed to enable access for staging on the south side of Cache Creek near the bridge. The existing bridge would be removed once the temporary access bridge is functional. The temporary access bridge would be used for construction access and emergency access only. The temporary bridge would be closed to recreational uses. Construction of the temporary access bridge will be at the discretion of the contractor, subject to permit conditions.

4.4.5 Retaining Walls

Approach roadway construction requires imported borrow. Two retaining walls will be constructed to contain the approach fill at the west end of the new bridge. Imported borrow will be required to meet the engineer's specification and be free of organic matter or other unsatisfactory material. Fill would be obtained from commercial sources with environmentally approved sites on the Department of Mine Reclamation's AB 3098 list.

4.4.6 Bridge Alternatives

Project design originally considered a bridge alignment west and upstream of the existing bridge. The decision to replace the bridge structure on the same alignment was determined from the need to avoid a cultural resource site on the east side of the Creek. A bridge length of 131-feet was determined to be appropriate considering the existing grades on both sides of the creek. A single-span structure was ruled out due to the greater depth of the superstructure needed versus a three-span configuration. The bridge needs to be constructed on a horizontal curve that accommodates CalFire vehicular access requirements. The horizontal curve precludes the use of a precast concrete superstructure. The new structure will be supported on 30-inch CIDH concrete piles and pile extensions. Cast-in-place (CIP) reinforced concrete and CIP prestressed concrete slab structures were considered. The prestressed concrete slab has a longer construction time of approximately 3 weeks due to the post-tensioning operations compared to the reinforced concrete slab alternative. Spread footings were not selected as they would require significant bedrock excavation to provide secure bearing to prevent long-term scour.

4.4.7 Right of Way

The entirety of the Project occurs on County owned property. The Project will not encroach on CA-16. No right of way (ROW) acquisition or Temporary Construction Easement (TCE) is necessary.

4.4.8 Detour

The CR 40 bridge has been closed since 2008. The bridge will remain closed during construction and unavailable to recreational users; once a temporary construction bridge is installed and functional, the existing bridge will be removed. The Project will not require additional detours or closures on CA-16, adjacent to the Project site.

4.4.9 Utilities

There are no utilities present in the Project area.

4.4.10 Equipment

Construction may require clearing and grubbing to accommodate the construction of the bridge. Heavy equipment used during construction activities may include any combination of the following: excavator (with jack-hammer attachment), front-end loader, bulldozer, crane, dump trucks, grader, off road fork lift, service trucks and vehicles, asphalt paver, roller, generator set, signal boards, rubber-tired backhoe, etc.

General bridge construction equipment expected to be used includes, but is not limited to: haul trucks, cranes, excavators, drill rigs, gradalls, backhoes, dump delivery trucks, concrete boom pump and service vehicles.

4.4.11 Scour and Rock Slope Protection

Stream flows have caused scouring of the creek bed at the existing bridge abutments and at other locations in between. Scour resistant bedrock exists at the location of each support structure, but the underlying bedrock is not scour proof. The weathered and fractured rock exposed or subject to abrasion from channel bedload is considered susceptible to erosion and/or “plucking” along discontinuities, particularly under extreme and/or prolonged exposure to high energy flow. Therefore, some rock scour would be expected to occur over the life of the bridge. With these considerations, the uppermost 5 ft of the bedrock will be discounted at all proposed support locations for final design.

Rock slope protection (RSP) is required around the new abutments, and the retaining walls at the west end, as the bridge is designed to be inundated during design flows. Rip rap size was determined based on the Draft Preliminary Design Hydraulic Study (Avila 2019). RSP size is Class X, which is 3-ton rock with a D50 of 42 inches. The RSP will be a minimum of 63 inches thick. The RSP will be keyed into the channel the total scour depth or depth to erosion resistant material or utilize a mounded toe.

4.4.1 Diversion and Dewatering

Construction of the new bridge foundations as well as erection of the bridge superstructure and removal of the existing bridge may require construction equipment to access the creek bed. Equipment within the creek channel will need to be supported on a temporary platform or gravel bars. No equipment will be allowed to drive into an unprotected creekbed.

Construction would require the partial diversion of Cache Creek within the project limits. Cache Creek is a perennial stream. An open channel or pipe diversion would allow Cache Creek to flow through the construction site. Diversion methods may include the use of water pillows, rock, sandbags, pipes, or other structural methods approved by the Project Engineer and California Department of Fish and Wildlife (CDFW). An open channel diversion could use k-rails, water pillows, silt fencing, gravel, sandbags, polyethylene plastic sheeting, steel sheet piles, or similar materials to create a cofferdam. Once the cofferdam is installed, the area between the cofferdam and the creek bank would be dewatered with pumps. Any potential diversion and dewatering activities will be limited to when creek flows are low. Due to water releases from the Cache Creek Dam for irrigation in late spring and summer, an early season or a late season start may be preferable, depending on the rain year.

Groundwater and seepage may be encountered during construction, especially in the excavations for the foundations and footings. For dewatering operations, the contractor will be required to comply with the requirements in Section 13 Water Pollution Control of the Caltrans Standard Specifications. Construction of the CIDH piles will require special installation measures, including temporary casing and/or slurry drilling methods to prevent caving of the holes.

Permits and authorizations required for the Project include a Clean Water Act (CWA) Section 404 permit from the U.S. Army Corps of Engineers (NWP #14 for Linear Transportation Projects or NWP #23 for Approved Categorical Exclusions), a Section 401 Water Quality Certification from the Regional Water Quality Control Board, NPDES coverage under the State Water Resources Control Board’s Construction

General Permit, and a Fish and Game Code Section 1602 Lake and Streambed Alteration Agreement from CDFW.

4.4.2 Site Restoration

The construction documents will identify the locations of sensitive natural communities, roadside trees, shrubs, and other plants that are not to be removed or damaged, and all other improvements or facilities within or adjacent to the roadway. Suitable safeguards would be installed to protect existing features from injury or damage. Environmentally Sensitive Area (ESA) fencing will be used to delimit work areas in the vicinity of protected resources. Following completion of construction, all construction material and equipment will be removed from Cache Creek and the bed and banks of Cache Creek will be restored to approximate pre-project configurations. Areas temporarily disturbed by construction will be restored and revegetated with native plant species. If an object or facility is damaged as a result of construction activities, the contractor or other project-related responsible party will provide restoration that meets the equal or above quality conditions of the damaged property before the onset of work or degrading incident.

4.5 Construction Contract

The County would retain a construction contractor to construct the proposed improvements. The contractor would be responsible for compliance with all applicable rules, regulations, and ordinances associated with proposed Project activities and for implementing construction-related mitigation measures. The County would provide the construction contractor oversight and management and would be responsible for verifying the implementation of the mitigation measures. The contractor would construct the proposed Project in accordance with the Public Contract Code of the State of California, Project Plans, and any Special Provisions under development by the County.

4.6 Project Schedule

Construction of the proposed bridge is planned to commence in spring 2021 or later. A temporary access bridge, if needed by the contractor, would be constructed prior to removal of the existing bridge. The existing bridge would be removed once the temporary access bridge is functional, and the materials removed will become property of the Contractor. The replacement bridge will be constructed once the existing bridge has been removed. The construction duration, including bridge construction and bridge removal, is expected to be one season, but could extend to two seasons due to regulatory limitations on work periods. Night and/or weekend work, if needed, will minimize construction noise through abatement measures such as work-hour controls and maintenance of muffler systems.

4.7 Applicant Proposed Measures

The Applicant has proposed the following Applicant Proposed Measures (APMs) be added to the Project description to further reduce any potential environmental impacts to air quality, biological resources, cultural resources, greenhouse gas emissions, hazards and hazardous materials, and noise.

The APMs associated with the proposed Project are summarized below, and described in detail in Section 6 (Initial Study Checklist and Supporting Documentation).

- **Air Quality:** Construction practices would be implemented to reduce tailpipe and fugitive dust emissions during Project construction.

- **Biological Resources:** Construction practices would be implemented to avoid and minimize potential impacts to biological resources.
- **Cultural Resources:** Compliance with California Health and Safety Code Section 7050.5 and California Public Resources Code Sections 5097.5, 5097.9 et seq.
- **Hazards and Hazardous Materials:** Contract provisions will require a licensed asbestos contractor, certified by the State of California, and registered with Cal/OSHA to perform any asbestos related removal work.
- **Noise:** Night and/or weekend work, if needed, will minimize construction noise through abatement measures such as work-hour controls and maintenance of muffler systems.

5. Initial Study Checklist and Supporting Documentation

5.1 Initial Study Checklist

This section of the Initial Study incorporates the Environmental Checklist contained in Appendix G of the CEQA Guidelines. Each resource topic section provides a determination of potential impact and an explanation for the checklist impact questions. The following 21 environmental categories are addressed in this section:

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

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

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

5.2 Setting, Impacts, and Mitigation Measures

5.2.1 Aesthetics

| Except as provided in Public Resources Code Section 21099 would the project: | <i>Potentially Significant Impact</i> | <i>Less Than Significant with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |
|---|---------------------------------------|---|-------------------------------------|-------------------------------------|
| 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) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Environmental Setting

The following information is from the 2009 County General Plan CEQA Environmental Impact Report (EIR, Yolo County 2009b) and Capay Valley Area Plan 2010 (Yolo County 2010). The General Plan EIR subdivided into seven separate subareas of distinct natural resource, geographic, or developed qualities in order to describe the varying visual and scenic resources found within the County.

Yolo County is predominantly rural, having an agricultural character throughout most of the eastern portion of the County and a more topographically-varied foothill/mountain character in the western portion of the County. The Capay Hills rise in the western portion of the County and, along with the Blue Ridge at the western County boundary, enclose the eastern and western edges of the Capay Valley, respectively. This valley extends from Rumsey in the north to just south of Brooks; Cache Creek runs along its length before heading east through the center of the County. East of the Capay Hills lie the Dunnigan Hills, which run roughly northwest-southeast along Interstate 5 from Dunnigan to south of Zamora. The Capay Valley and Dunnigan Hills are predominantly areas of gently-rolling terrain. The Dunnigan Hills area evokes a visual reference to Northern California's other major wine-producing counties with its vineyards and open rangeland on moderately-sloping, rocky terrain. Lands to the east of Interstate 5 are dominated by Prime Farmland that supports alfalfa, rice, tomato, and seed crops. In the northern and eastern portions of the County, the visual landscape is dominated by nut orchards, particularly almonds and walnuts.

The Capay Valley is a unique landform of low, flat alluvial soils that extends generally northwest from the community of Capay to the Colusa County border, following along the Cache Creek. The valley and the adjoining Capay Hills, which form the eastern border of the valley, consist of a series of draws, canyons, and rangelands rising from the valley floor into the surrounding hills. Agriculture is the dominant land use within the valley, with large orchards and open rangeland contributing to the expansive vistas afforded from elevated viewpoints within the Capay Hills across the valley toward Blue Ridge and the County's border

with Napa County. Capay Valley is also the location of several small communities, including Capay, Brooks, Guinda, and Rumsey. The Capay Hills include a number of Yolo County's 20 mountain summits and peaks, including Bald Mountain, which is the prominent peak within the hills and affords uninterrupted views to the west and east.

Yolo County has no designated federal or State Scenic Highways (Caltrans 2020). In Yolo County CA-16 from the Colusa County line south to approximately Capay is identified by Caltrans as "eligible" for designation as a State Scenic Highway but is not officially designated.

Yolo County has designated the following as local scenic highways (Yolo County 2009a):

- CA 16: Colusa County line to Capay
- CA 128: Winters to the Napa County line
- County Roads 116 and 116B: Knights Landing to the eastern terminus of County Road 16
- County Roads 16 and 117 and Old River Road: County Road 107 to West Sacramento
- South River Road: West Sacramento city limits to Sacramento County line

The 2009 County General Plan and Capay Valley Area Plan 2010 include policies and associated programs that are intended to protect the Capay Valley's aesthetic resources from the impacts of future development. Goals and policies related to protection of scenic vistas and natural resources applicable to the proposed Project are described below:

2009 County General Plan

Policy CC-1.2: Preserve and enhance the rural landscape as an important scenic feature of the County.

Policy CC-1.5: Significant site features, such as trees, water courses, rock outcroppings, historic structures and scenic views shall be used to guide site planning and design in new development. Where possible, these features shall become focal points of the development.

Policy CC-1.8: Screen visually obtrusive activities and facilities such as infrastructure and utility facilities, storage yards, outdoor parking and display areas, along highways, freeways, roads and trails.

Policy CC-1.12: Preserve and enhance the scenic quality of the County's rural roadway system. Prohibit projects and activities that would obscure, detract from, or negatively affect the quality of views from designated scenic roadways or scenic highways.

Policy CC-1.15: The following features shall be protected and preserved along designated scenic roadways and routes, except where there are health and safety concerns:

- Trees and other natural or unique vegetation
- Landforms and natural or unique features
- Views and vistas
- Historic structures (where feasible), including buildings, bridges and signs

Policy CC-1.16: The following features shall be stringently regulated along designated scenic roadways and routes with the intent of preserving and protecting the scenic qualities of the roadway or route:

- Signage
- Architectural design of adjoining structures

- Construction, repair and maintenance operations
- Landscaping
- Litter control
- Water quality
- Power poles, towers, above-ground wire lines, wind power and solar power devices and antennae

Policy CC-1.17: Existing trees and vegetation and natural landforms along scenic roadways and routes shall be retained to the greatest feasible extent. Landscaping shall be required to enhance scenic qualities and/or screen unsightly views and shall emphasize the use of native plants and habitat restoration to the extent possible. Removal of trees, particularly those with scenic and/or historic value, shall be generally prohibited along the roadway or route.

Capay Valley Area Plan 2010

Goal 1: Maintain the open, agrarian character of the landscape as seen from the highway and principal roadways in the area.

Policy 1: Support the effort to secure state Scenic Highway status for State Route 16.

Implementation Measure 1: The County has adopted official County scenic designation for State Route 16 within the Capay Valley Study Area.

Policy 2: Ensure architectural quality and design consistency within existing communities of the Capay Valley along SR 16.

Implementation Measure 1: In consultation with local businesses and residences, and citizen advisory committees the County has developed design guidelines for new commercial structures proposed to be constructed within the existing communities.

Implementation Measure 2: The County shall review building permits to ensure consistency with the Design Guidelines.

Implementation Measure 3: New structures or landscaping proposed within Rumsey, Guinda, Capay or Brooks must be consistent with certain historical or unique design features specific to those communities, in particular those features which influence access, parking, signage, view, drainage, privacy, safety, lighting and security.

Potential Environmental Effects

- a) ***Less Than Significant Impact.*** The landscapes and visual features of the County are of predominantly local importance and the County does not host significant numbers of viewers (Yolo County 2009a). The County’s scenic areas, vistas, and views are predominantly accessible by the County’s locally-designated scenic highways. The Project is located immediately south of the CA-16 which is a County designated scenic highway. The Project is located within the western portion of the Cache Creek Regional Park (lower site). Views from the Project location include Cache Creek, the surrounding hills, and CR 40. Views from CA 16 of the Project site are brief and interrupted by vegetation and topography. The Project is the replacement of an existing low water bridge with a new bridge structure. The new bridge structure will be approximately 8 ft taller than

the existing bridge. Construction of the replacement bridge may require removal of up to three native trees. The final tree removal will be determined by the County during final design.

The increased elevation of the new bridge, associated improvements, and minimal vegetation removal will result in a minor change to the views of the Project site. Upon completion of the Project some improvement may be visible but will blend with and be consistent with the existing views. Travelers on CA 16 may notice some minor change in view, however the new bridge will still be partially screened by existing vegetation and topography. The proposed improvements are consistent with the existing land use and aesthetic features of the area. The replacement bridge and associated improvements will not result in a substantial adverse impact to any scenic vistas. Project impacts are less than significant.

- b) **No Impact.** Yolo County has no designated federal or State Scenic Highways (Caltrans 2020). In Yolo County CA-16 from the Colusa County line south to approximately Capay is identified by Caltrans as “eligible” for designation as a State Scenic Highway but is not officially designated. See also discussion under item a) above.
- c) **Less Than Significant Impact.** See discussion of a) and b) above.
- d) **No Impact.** The Project does not include new or additional outdoor lighting.

Mitigation Measures: None required

5.2.2 Agricultural and Forestry Resources

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

| | <i>Potentially Significant Impact</i> | <i>Less Than Significant with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |
|--|---------------------------------------|---|-------------------------------------|-------------------------------------|
| 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 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Production (as defined by Government Code section 51104(g))?

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| d) Result in the loss of forest land or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input 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

The Project area is classified as “other land” per the State’s Farmland Mapping and Monitoring Program (California Department of Conservation 2020b). The “other land” classification includes low density rural developments, brush, timber, wetland, and riparian areas not suitable for livestock grazing, etc. No lands under Williamson Act contract occur in or adjacent to the Project area.

Potential Environmental Effects

- a) **No Impact.** No Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or lands under Williamson Act contracts occur in the project area.
- b) **No Impact.** See response for item a).
- c) **No Impact.** The proposed Project is consistent with the existing zoning and does not include any rezoning activities.
- d) **Less Than Significant Impact.** The proposed Project may need to remove up to three native trees. The final tree removal will be determined by the County during final design. The Project will not result in the loss or conversion of forest land.
- e) **No Impact.** The Project does not include other activities that could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use.

Mitigation Measures: None required

5.2.3 Air Quality

| Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project: | <i>Potentially Significant Impact</i> | <i>Less Than Significant with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |
|--|---------------------------------------|---|-------------------------------------|-------------------------------------|
| a) Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

- c) Expose sensitive receptors to substantial pollutant concentrations?
- d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Environmental Setting

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

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

Table 1. Attainment Status for SVAB in Yolo County (CARB 2020)

| Pollutant | National Designation | State Designation |
|-------------------------------|-----------------------------|----------------------------|
| Ozone | Nonattainment (8 hr.) | Nonattainment-Transitional |
| PM ₁₀ | Unclassified | Nonattainment |
| PM _{2.5} | Unclassified/ Attainment | Unclassified |
| CO | Unclassified/ Attainment | Attainment |
| NO ₂ | Unclassified/ Attainment | Attainment |
| SO ₂ | Unclassified/ Attainment | Attainment |
| Sulfates | NA | Attainment |
| Lead | Unclassified/ Attainment | Attainment |
| Hydrogen Sulfide | NA | Unclassified |
| Visibility Reducing Particles | NA | Unclassified |

Yolo County is currently in nonattainment status for the 8-hour ozone NAAQS. The County is in nonattainment-transitional status for the ozone and nonattainment status for the PM₁₀ CAAQS.

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

- **Rule 2.3 (Visible Emissions):** The purpose of this rule is to limit the emissions of visible air contaminants to the atmosphere.
- **Rule 2.5 (Nuisance):** Prohibits the discharge of air containments which cause injury, detriment, nuisance, or annoyance.
- **Rule 2.11 (Particulate Matter):** The purpose of this rule is to protect the ambient air quality by establishing a particulate matter emission standard.
- **Rule 2.28 Cutback and Emulsified Asphalts:** The purpose of this Rule is to limit the emissions of organic compounds from the use of cutback and emulsified asphalts in paving materials, paving, and maintenance operations.
- **Rule 2.32 Stationary Internal Combustion Engines:** The purpose of this Rule is to limit the emission of oxides of nitrogen (NO_x) and carbon monoxide (CO) from stationary internal combustion engines.
- **Rule 9.8 Stationary Internal Combustion Engines:** The purpose of this Rule is to limit asbestos emissions to the atmosphere from serpentine rock by prohibiting the use or sale of serpentine rock containing more than one percent (1%) asbestos for surfacing applications.

The YSAQMD sets threshold levels for use in evaluating the significance of criteria air pollutant emissions from project-related mobile and area sources in the *Handbook for Assessing and Mitigating Air Quality Impacts* (the Handbook, YSAQMD 2007). The Handbook identifies the following significance thresholds for use in evaluating criteria air pollutant emissions from project-related activities.

- Reactive Organic Gases (ROG) 10 tons per year (approx. 54.8 pounds per day)
- Oxides of Nitrogen (NO_x) 10 tons per year (approx. 54.8 pounds per day)
- Particulate Matter (PM₁₀) 80 pounds per day
- Carbon Monoxide (CO) Violation of State ambient air quality standard

The Project will not increase the capacity of CR 40. Since the project does not increase the capacity of CR 40 the Project will not result in increased operational vehicular emissions. The air quality analysis below is focused on potential construction related impacts.

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

- Grubbing/Land Clearing
- Grading/Excavation
- Drainage/Utilities/Sub-Grade
- Paving

Based on similar road and bridge projects, the assumptions presented in Table 2 regarding type of construction equipment and use duration were used in the RCEM. Other Project assumptions used in the RCEM include a total six-month construction schedule starting in 2021, use of water trucks, bulldozer, crane, excavator, grader, roller, and rubber-tired loader assumed to run 6 hours per day, and all other equipment was assumed to run for eight hours per day. Results of the RCEM based on the Project assumptions are in Table 3.

Table 2. Construction Equipment and Use Assumptions.

| Construction Period | Equipment | |
|------------------------------|--|------------------------|
| | Quantity (Assumed Running Hrs Per Day) | Type |
| Grubbing/ Land Clearing | 1(6) | Excavator |
| | 1(6) | Bulldozer |
| | 2(8) | Signal Board |
| Grading/Excavation | 1(6) | Crane |
| | 1 (8) | Drill Rig Truck |
| | 2(6) | Bulldozer |
| | 2(6) | Excavator |
| | 1(6) | Grader |
| | 2(8) | Roller |
| | 2(8) | Loaders |
| | 2(8) | Signal Board |
| Drainage/Utilities/Sub-Grade | 2(8) | Backhoe |
| | 1(8) | Air Compressor |
| | 1(8) | Generator Set |
| | 1(6) | Grader |
| | 1(8) | Plate Compactor |
| | 1(8) | Pump |
| | 1(8) | Rough Terrain Forklift |
| | 2(8) | Signal Board |
| Paving | 2(8) | Backhoe |
| | 1(8) | Paver |
| | 1(8) | Paving Equipment |
| | 1(8) | Roller |
| | 2(8) | Signal Board |

Table 3. Estimated Construction Emissions

| Project Phases | ROG lbs/day | NOx lbs/day | PM10 Total lbs/day | CO lbs/day |
|---|----------------|----------------|-----------------------|---------------|
| Grubbing/ Land Clearing | 0.74 | 7.92 | 2.83 | 5.47 |
| Grading/excavation | 3.57 | 38.57 | 4.18 | 26.91 |
| Drainage/utilities/sub-grade | 2.15 | 19.93 | 3.53 | 20.85 |
| Paving | 1.13 | 11.09 | 0.61 | 12.93 |
| Maximum lbs/day | 3.57 | 38.57 | 4.18 | 26.91 |
| <i>Significance Threshold (tons/year)</i> | <i>10</i> | <i>10</i> | <i>--</i> | <i>--</i> |
| <i>Significance Threshold lbs/day</i> | <i>54.8</i> | <i>54.8</i> | <i>80</i> | <i>--</i> |
| Significant? | No | No | No | N/A |

Notes: Data entered to emissions model: Project Start Year: 2021; Project Length (months): 6; Total Project Area (acres): 2.0; Total Soil Imported/Exported (yd³/day): 20. PM10 estimates assume 50% control of fugitive dust from watering and associated dust control measures. Total PM10 emissions are the sum of *exhaust* and *fugitive dust* emissions.

Applicant Proposed Measures

APM AQ-1 General Air Quality Measures

The County or its contractor will implement the following measures to reduce tailpipe emissions from diesel-powered construction equipment.

- Maximize use of diesel construction equipment meeting CARB’s 1996 or newer certification standard for off-road heavy-duty diesel engines
- Use emission control devices at least as effective as the original factory-installed equipment.
- Substitute gasoline-powered for diesel-powered equipment when feasible.
- The primary contractor shall be responsible to ensure that all construction equipment is properly tuned and maintained prior to and for the duration of onsite operation.
- All equipment will use Tier 2 engines if available.

APM AQ-2 Dust Control

The County or its contractor will implement the following fugitive dust control measures.

- Watering all active construction sites at least twice daily in dry conditions, with the frequency of watering based on the type of operation, soil, and wind exposure

- All disturbed areas, including storage piles, which are not being actively used for construction purposes, will be effectively stabilized using water or other approved substances.
- Prohibit all grading activities during periods of high wind (over 20 miles per hour)
- On-site vehicles limited to a speed that minimizes dust emissions on unpaved roads (15 mph)
- Cover all trucks hauling dirt, sand, or loose materials
- Cover or otherwise stabilize inactive storage piles
- Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. The Applicant, or its contractor, will respond to complaints and take corrective action within 48 hours
- Limit the area under construction at any one time

Potential Environmental Effects

- a) ***No Impact.*** A project is inconsistent with the applicable air quality plan if it would result in population and/or employment growth that exceeds growth estimated in the applicable air quality plan. The proposed Project does not include development of new housing or employment centers, and would not induce population or employment growth. Therefore, the proposed project would not conflict with or obstruct the implementation of any air quality plan.
- b) ***Less Than Significant Impact.*** In the Project area, Yolo County is currently in nonattainment status for the 8-hour ozone NAAQS as well as the ozone and PM10 CAAQS. Project construction would create short-term increases in ROG, NOx, and PM10 emissions from vehicle and equipment operation. The RCEM estimates are below the Yolo County CEQA significance threshold of 10 tons per year (54.8 lbs per day) each for ROG and NOx and 80 lbs/day PM10. The Project would not generate additional traffic on the CR 40, would not affect intersection operations, and would not result in a potential violation of the CO standard.
- c) ***Less Than Significant Impact.*** Sensitive individuals refer to those segments of the population most susceptible to poor air quality (i.e., children, the elderly, and those with pre-existing serious health problems affected by air quality). Sensitive land uses occur where sensitive individuals are most likely to spend time (e.g. schools and schoolyards, parks and playgrounds, day care centers, nursing homes, hospitals, and residential communities). Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. The Project is located in the eastern portion of the Cache Creek Regional Park (lower site). No other potential sensitive land uses occur within one mile. Park users have the potential to be exposed to PM10, PM2.5, CO, ROG, and NOx during construction. These impacts are considered less than significant due to the rural location, the limited nature of the Project, and the short-term construction period.

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

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

Mitigation Measures: None required

5.2.4 Biological Resources

| Would the project: | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|-------------------------------------|-------------------------------------|
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <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 US Fish and Wildlife Service? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Have a substantial adverse effect on state federally protected wetlands (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 type="checkbox"/> | <input checked="" 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 type="checkbox"/> | <input type="checkbox"/> | <input checked="" 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

Potential impacts to biological and wetlands resources were evaluated in the following Project documents:

- **Natural Environment Study (NES):** The NES is a standard Caltrans report format for documenting and evaluating the potential Project impacts to biological resources (Sycamore Environmental 2019a).

- **Aquatic Resource Delineation Report (ARDR):** This report evaluates and delineates wetland and other waters of the U.S. in the project area (Sycamore Environmental 2019b).

The documents conclude the following regarding biological resources:

- The Project area does not provide habitat for federal-listed species. No designated critical habitat occurs in the Project area. The Project will have no effect on federal-listed species or designated critical habitat.
- The foothill yellow-legged frog (FYLF) remains a CDFW species of special concern in Yolo County, part of the Northwest/ North Coast clade, while the California Fish and Game Commission listed the FYLF as CESA threatened or endangered in other parts of the state in December 2019. The Northwest/ North Coast clade is not subject to CESA protections but is still a CDFW species of special concern. The Project is located in the Northwest/ North Coast clade.
- The Project area also provides suitable habitat for other special-status wildlife species including: western pond turtle (*Emys marmorata*), western red bat (*Lasiurus blossevillii*), and migratory birds and birds of prey.
- The Project area provides suitable habitat for seven special-status plants ranked by the California Native Plant Society (CNPS), including bent-flowered fiddleneck (*Amsinckia lunaris*), Jepson's milk-vetch (*Astragalus rattanii* var. *jepsonianus*), big-scale balsamroot (*Balsamorhiza macrolepis*), Pappose tarplant (*Centromadia parryi* ssp. *parryi*), deep-scarred cryptantha (*Cryptantha excavata*), adobe-lily (*Fritillaria pluriflora*), and Colusa layia (*Layia septentrionalis*).
- The Project will result in impacts to Cache Creek, a potential jurisdictional feature under § 404 of the Clean Water Act (CWA). No wetlands occur in the Project area.
- Permits and authorizations required for the Project include a § 404 CWA Nationwide Permit from the U.S. Army Corps of Engineers (Corps), a § 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB), a National Pollutant Discharge Elimination System (NPDES) Permit from the RWQCB, and a Fish and Game Code § 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife (CDFW). The Project will seek coverage under the Yolo County Habitat Conservation Plan & Natural Community Conservation Plan (Yolo HCP/NCCP).

The Yolo Habitat Conservation Plan/Natural Communities Conservation Plan (Yolo HCP/NCCP) is a comprehensive, county-wide plan to provide for the conservation of 12 sensitive species and the natural communities and agricultural land on which they depend, as well as a streamlined permitting process to address the effects of a range of future anticipated activities on these 12 species. The Yolo HCP/NCCP refers to the range of future anticipated activities as *covered activities* and the 12 sensitive species covered by this HCP/NCCP as *covered species*. The Yolo HCP/NCCP will improve habitat conservation efforts in Yolo County; encourage sustainable economic activity; and maintain and enhance agricultural production.

The Yolo County HCP/NCCP Section 4.3, Avoidance and Minimization Measures, describes conditions that project proponents must adopt to receive coverage under the Yolo HCP/NCCP. These avoidance and minimization measures specify how project proponents will avoid and minimize take of covered species

during implementation of covered activities and are referred to herein as AMMs. Section 4.3.1, General Project Design, describes AMMs that apply to the design of all development projects. Section 4.3.2, General Construction and Operations and Maintenance, describes AMMs that apply to all construction and operations and maintenance activities. Section 4.3.3, Sensitive Natural Communities, describes AMMs that are specific to rare or sensitive natural communities, such as the rare alkali prairie natural community and other natural communities associated with wetlands, and therefore warrant specific avoidance and minimization measures. Section 4.3.4, Covered Species, describes AMMs that are specific to each covered species.

Per the Project NES summarized above, the Project has the potential to effect only one HCP/NCCP covered species, Western Pond Turtle. The NES evaluation determined that the Project area does not contain habitat for the following Yolo HCP/ NCCP covered species: Palmate-bracted bird's beak Valley elderberry, California tiger salamander longhorn beetle, burrowing owl, western Swainson's hawk, western yellow billed, cuckoo, white-tailed kite, least Bell's vireo, bank swallow, or tricolored blackbird (Sycamore Environmental 2019a). Yolo HCP/NCCP Sensitive Natural Communities in the Project area include Cache Creek and valley foothill riparian. The NES evaluation determined that the following Yolo HCP/ NCCP sensitive natural communities do not occur in the Project area: alkali prairie vernal pool complex and fresh emergent wetlands.

The Project has incorporated the following HCP/NCCP AMMs into the project design and the mitigation measures (MM) presented in this document:

- **AMM1, Establish Buffers:** Addressed in MM BIO-5 (Valley Foothill Riparian) and APM BIO-1 (General Avoidance Biological Resources).
- **AMM3, Confine and Delineate Work Area:** Addressed in MM BIO-5 (Valley Foothill Riparian) and APM BIO-1 (General Avoidance Biological Resources).
- **AMM4, Cover Trenches and Holes during Construction and Maintenance:** Addressed in MM BIO-2 (Western Pond Turtle).
- **AMM5, Control Fugitive Dust:** This Yolo HCP/NCCP AMM is addressed by APM AQ-2 (Dust Control) in section 5.2.3 above.
- **AMM6, Conduct Worker Training:** Addressed in MM BIO-1 (FYLF).
- **AMM7, Control Nighttime Lighting of Project Construction Sites:** Addressed in APM BIO-1 (General Avoidance Biological Resources).
- **AMM8, Avoid and Minimize Effects of Construction Staging Areas and Temporary Work Areas:** Addressed in MM BIO-5 (Valley Foothill Riparian) and APM BIO-1 (General Avoidance Biological Resources).
- **AMM9, Establish Buffers around Sensitive Natural Communities:** Addressed in MM BIO-5 (Foothill Riparian) and APM BIO-1 (General Avoidance Biological Resources).
- **AMM10, Avoid and Minimize Effects on Wetlands and Waters:** Addressed in MM BIO-6 (Cache Creek) and APM BIO-1 (General Avoidance Biological Resources).

- **AMM13, Minimize Take and Adverse Effects on Habitat of California Tiger Salamander:** This AMM was implemented and as a result it was determined that no habitat for this species occurs in the project area. Discussed further below in the impact discussion section.
- **AMM14, Minimize Take and Adverse Effects on Habitat of Western Pond Turtle:** Addressed in APM BIO-1 (General Avoidance Biological Resources) and MM BIO-2 (Western Pond Turtle).
- **Minimize Take and Adverse Effects on Habitat of Swainson’s Hawk and White-Tailed Kite (AMM16), Western Yellow-Billed Cuckoo (AMM17), Western Burrowing Owl (AMM18), Least Bell’s Vireo (AMM19), Bank Swallow (AMM20), Tricolored Blackbird (AMM21):** A planning level survey was conducted to determine if suitable habitat is present for these species in or adjacent to the Project area. The survey concluded that suitable habitat for these species is not present in the Project area or the project location is outside the geographic distribution of the species.

Natural communities present in the Project area are shown in Table 4 (Sycamore Environmental 2019a). Special-status natural communities evaluated in the Project area are waters, wetlands, riparian communities, and any natural community ranked S1, S2, or S3 by California Department of Fish and Wildlife (CDFW). Cache Creek and valley foothill riparian are special-status natural communities in the Project area. Oak-Foothill Pine also occurs in the Project area but is not a special-status natural community per CDFW or the Yolo HCP/NCCP. The Project does not remove any native oak trees and the Oak-Foothill Pine community is not discussed further here.

Table 4. Land Cover Types in the Project area and Yolo HCP/NCCP Status

| Natural Community (Yolo HCP/NCCP Land Cover Types) | Vegetation Alliance(s) CDFW Code(s) & Rarity Rank(s) ¹ | Sensitive | Yolo HCP/NCCP Fee Payment? | Acreage |
|--|--|-----------|----------------------------|---------|
| Oak-Foothill Pine | Foothill Pine Woodland Alliance CDFW 87.130.00 S4 G4 | No | No | 4.40 |
| Valley Foothill Riparian | Red Willow Thickets Alliance CDFW 61.205.00 S3 G3 Sandbar Willow Thickets Alliance CDFW 61.209.00 G5 S4 | Yes | Yes | 0.03 |
| Cache Creek (Riverine Open Water) | -- | Yes | Yes | 2.67 |
| Barren (Sand and Gravel Bars) | -- | No | Yes | 0.18 |
| Other Features | | | | |
| Dirt Trail (Barren Anthropogenic) | -- | No | No | 0.10 |

| | | | | |
|--|----|----|----|-------------|
| Developed (Paved Parking Lot, Gravel Road) | -- | No | No | 1.36 |
| Total: | | | | 8.74 |

¹ Alliance codes and rarity ranks are from CDFW (2018). Rarity ranking follows NatureServe’s Heritage Methodology and is based on degree of imperilment as measured by rarity, trends, and threats. State (S) ranks of 1-3 are considered highly imperiled (CDFW 2018). Communities naturally lacking vegetation, aquatic communities, and communities dominated by nonnatives may not contain recognized vegetation alliances.

Applicant Proposed Measures (APM)

APM BIO-1 General Avoidance Biological Resources (*Incorporates/Implements Yolo HCP/NCCP AMM 1{Establish Buffers}, AMM 3 {Confine and Delineate Work Area}, AMM 6 {Conduct Worker Training}, AMM7 {Control Nighttime Lighting of Project Construction Sites}, AMM8 {Avoid and Minimize Effects of Construction Staging Areas and Temporary Work Areas}*):

- All vegetation to be removed should be done so using hand tools, including chain saws and mowers, and should be trimmed several inches above the ground with the roots left intact to prevent erosion.
- During construction, water quality will be protected by implementation of BMPs consistent with the 2008 County of Yolo Improvement Standards, Section 11, Stormwater Quality, Erosion and Sediment Control and the current edition of the Caltrans Stormwater Quality Handbooks (<http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm>) to minimize the potential for siltation and downstream sedimentation of Cache Creek.
- Equipment will be refueled and serviced at designated construction staging areas. All construction material will be stored and contained in a designated area that is located away from channels to prevent transport of materials into the adjacent Cache Creek. The preferred distance is a minimum 100 feet from riparian habitat or water bodies. Construction vehicles and equipment will be maintained to prevent contamination of soil and water from external grease and oil and from leaking hydraulic fluid, fuel, oil, and grease.
- Following completion of construction, all construction material and equipment will be removed from Cache Creek and the bed and banks of Cache Creek will be restored to approximate pre-project configurations.
- Areas temporarily disturbed on the banks of Cache Creek will be revegetated and reseeded with native grasses and other native herbaceous annual and perennial species prior to October 15 and/or immediately after construction at the completion of the Project (Appendix G of the approved NES). The project engineer may determine that reseeded areas should be covered with a biodegradable erosion control fabric to prevent erosion and downstream sedimentation. The project engineer will determine the specifications needed for erosion control fabric (e.g., sheer strength) based on anticipated maximum flow velocities and soil types. The seed type will consist of commercially available native grass and herbaceous species as described in (Appendix G of the approved NES). No seed of nonnative species will be used unless certified to be sterile.

- Equipment within the creek channel will need to be supported on temporary platform or gravel bars. No equipment will be allowed to drive into an unprotected creekbed.
- All mud and debris will be washed off construction equipment prior to entering and leaving the site.
- Invasive plant material removed during vegetation clearing will be bagged, sealed, transported, and disposed of at a County-approved landfill or incinerator in a manner that prevents invasive plant material (seeds, plant fragments, etc.) from escaping.
- As applicable, workers will direct all lights for nighttime lighting of project construction sites into the project construction area and minimize the lighting of natural habitat areas adjacent to the project construction area.

Potential Environmental Effects

a) ***Less Than Significant with Mitigation Incorporated***

Special-Status Plant Species: Potential habitat for special-status plant species is present in the Project area. The Project area provides potential habitat for the following special-status plant species:

- Bent-flowered fiddleneck (*Amsinckia lunaris*)
- Jepson’s milk-vetch (*Astragalus rattanii* var. *jepsonianus*)
- Big-scale Balsamroot (*Balsamorhiza macrolepis*)
- Pappose tarplant (*Centromadia parryi* ssp. *parryi*)
- Deep-scarred cryptantha (*Cryptantha excavata*)
- Adobe lily (*Fritillaria pluriflora*)
- Colusa layia (*Layia septentrionalis*)

Bent-flowered fiddleneck, Jepson’s milk-vetch, Big-scale Balsamroot, Deep-scarred cryptantha, Adobe lily, and Colusa layia were not observed during the floristic botanical survey conducted during the evident and identifiable period of these species.

The floristic botanical survey was conducted outside of the evident and identifiable period of pappose tarplant. Tarplant (*Centromadia* sp.) species have distinct foliage and can be identified to genus when not in bloom. No *Centromadia* species were observed during the botanical survey. No impact will occur.

Special-Status Wildlife Species:

California Tiger Salamander (CTS, *Ambystoma californiense*): CTS is a covered species per the Yolo HCP/NCCP. In accordance with AMM13 of the Yolo HCP/NCCP for CTS, and the draft Yolo HCP/NCCP Reporting Form for Public Projects (Form 4), a qualified biologist conducted a planning-level survey to identify if any suitable aquatic and upland habitats for CTS were present in and within 500 feet of the project footprint. There is no aquatic breeding habitat in the Project area or within 1.24 miles of the Project area. Cache Creek does not provide suitable habitat for this species due to the

presence of other amphibians and the high discharge flows from the Cache Creek Dam. The Project area does not provide upland habitat for CTS. No impact will occur.

Foothill Yellow-Legged Frog (FYLF; *Rana boylei*): In the Project area the bed and banks of Cache Creek provide suitable habitat for FYLF. Exposed rocks provide suitable basking habitat. Rocks and gravel along the bed and bank provide suitable breeding habitat and refuge. No FYLF were observed in the Project area during the 2018 and 2019 surveys. Construction activities will result in impacts to Cache Creek, which provides potential habitat for FYLF. Temporary impacts consist of potential diversion/dewatering activities and construction access to install RSP, removal of the existing bridge deck, and work on the new bridge falsework. Permanent impacts consist of the installation of RSP at the new abutments and around the adjacent south abutment. RSP is needed to stabilize and protect the abutments from scour. Construction has the potential to temporarily impact water quality. During construction, water quality will be protected by implementation of BMPs. Flow levels in Cache Creek are highly dependent upon releases from the Cache Creek Dam. The timing of in-water work will be determined by the timing and amount of cfs discharge in Cache Creek. Implementation of MM BIO-1 (FYLF) will reduce potential impacts to less than significant. Implementation of APM BIO-1 (General Avoidance Biological Resources), MM BIO-5 (Valley Foothill Riparian) and MM BIO-6 (Cache Creek) will also reduce potential impacts to FYLF.

Western Pond Turtle (WPT; *Emys marmorata*): WPT is a covered species per the Yolo HCP/NCCP. Two WPT were observed in the Project area, basking on rocks in Cache Creek, during the 2019 biological survey. Cache Creek in the project area provides habitat for WPT. Construction activities will result in impacts to Cache Creek, which provides potential habitat for WPT. Temporary impacts consist of potential diversion/dewatering activities and construction access to install RSP, removal of the existing bridge deck, and work on the new bridge falsework. The permanent impacts consist of the installation of RSP at the new abutments and around the adjacent south abutment. RSP is needed to stabilize and protect the abutments from scour. Construction has the potential to temporarily impact water quality. Implementation of MM BIO-2 (WPT), which incorporates Yolo HCP/NCCP AMM 14 (Minimize Take and Adverse Effects on Habitat of Western Pond Turtle), will reduce potential impacts to less than significant. Implementation of APM BIO-1 (General Avoidance Biological Resources), MM BIO-5 (Valley Foothill Riparian) and MM BIO-6 (Cache Creek) will also reduce potential impacts to WPT.

Nesting Birds Listed Under the Federal MBTA, State MBPA, or Regulated by CA Fish and Game Code: The Project area provides potential nesting sites for birds listed under the federal Migratory Bird Treaty Act (MBTA) of 1918, the State Migratory Bird Policy Act (MBPA) of 2019, and regulated by CA Fish and Game Code. Depending on the species, birds may nest on trees, shrubs, in or on the ground, and on artificial structures such as buildings, bridges, culverts, headwalls, poles, and signs.

No active nests were observed within the Project area during the 2019 surveys. The Project area does not occur in modeled habitat for any of the Yolo HCP/NCCP covered bird species. The 2019 surveys (planning level) determined that habitat for Yolo HCP/NCCP covered bird species including burrowing owl (AMM18), western Swainson's hawk (AMM16), western yellow billed (AMM17), cuckoo, white-tailed kite (AMM16), least Bell's vireo (AMM19), bank swallow (AMM20), and tricolored blackbird (AMM21) does not occur in or adjacent to the Project area. MM BIO-3 below

provides for preconstruction surveys for other birds protected by the MBTA or CA Fish and Game Code.

Other migratory birds could nest in the trees, shrubs, or on the ground in the Project area. Large trees (i.e., those over 20 feet tall) may provide potential nesting opportunities for other birds of prey in the Project area. The bridge does not provide suitable nesting habitat because it is frequently inundated by irrigation release flows in Cache Creek during the nesting season. One inactive stick nest, possibly that of a western scrub jay or squirrel, was observed in an interior live oak tree on the south bank of Cache Creek upstream of the existing bridge. Implementation of MM BIO-3 will reduce potential impacts to less than significant.

Western Red Bat (*Lasiurus blossevillii*): Western red bat was not observed in the Project area during the biological surveys. No guano, vocalizations, bat smell, or other sign was detected in the Project area. The underside of the existing bridge does not provide suitable nesting habitat because it is a low water bridge that becomes inundated during times of high flow. Cottonwood and willow trees in the riparian areas around Cache Creek may provide potential roosting habitat for western red bat. The Project may remove up to three native trees: one Fremont cottonwood and two red willows. Implementation of MM BIO-4 will reduce potential impacts to less than significant.

- b) ***Less Than Significant with Mitigation Incorporated.*** Cache Creek and valley foothill riparian are special-status natural communities in the Project area. Cache Creek is a potential waters of the U.S. and state. Impacts to Cache Creek are discussed under Item c) below. A total of 0.03 acres of valley foothill riparian is present in the Project area. Valley foothill riparian occurs along the bank of Cache Creek in the Project area. Barren areas including large cobble, gravel, and sand bars occur intermittently among the valley foothill riparian along the bank of Cache Creek.

Project implementation will result in 0.02 acre of temporary impact and 0.01 acre of permanent impact to valley foothill riparian in the Project area. Temporary impacts would result from construction access to install RSP, removal of the existing bridge deck, and work on the new bridge falsework. Permanent impacts would result from installation of RSP at the northern abutments and around the retaining walls. The RSP is needed to stabilize and protect the abutments from scour. Three trees may be removed from this community. The final tree removal will be determined by the County during final design.

Yolo HCP/NCCP AMM9 (Establish Buffers around Sensitive Natural Communities, Valley foothill riparian) states that a 100 ft buffer will be provided from the canopy drip-line of Valley foothill riparian habitat. AMM9 then goes on to state that ‘*Transportation or utility crossings may encroach into this sensitive natural community provided effects are minimized and all other applicable AMMs are followed.*’ This bridge replacement Project cannot completely avoid impacts to Valley foothill riparian in the Project area. The Project will implement all applicable Yolo HCP/NCCP AMMs as listed above and below. Implementation of MM BIO-5 (Valley foothill riparian) will reduce potential impacts to less than significant. Implementation of APM BIO-1 (General Avoidance Biological Resources) and MM BIO-6 (Cache Creek) will also reduce potential impacts to Valley foothill riparian.

- c) ***Less Than Significant with Mitigation Incorporated.*** Cache Creek is a potential waters of the U.S. and state in the Project area. No other potential waters of the U.S. or state, including wetlands occur

in the Project area. Upstream of the Project area, the watershed of Cache Creek extends approximately 30 miles to the northwest to its origin inlet (source) at Clear Lake in Lake County. The Cache Creek Dam is approximately 25 miles west of and upstream of the Project area. The Dam was built to increase Clear Lake's capacity and regulate outflow for downstream users of Cache Creek water. Flow levels in the Project area are highly dependent upon releases from the Cache Creek Dam. Water levels of Cache Creek in the Project area are typically lowest between October and February (Sycamore Environmental 2019a).

Cache Creek is classified as riverine in the Yolo HCP/NCCP. Biological resources including riverine habitat are protected under Goal CO-2 (Biological Resources) of the Conservation and Open Space Element, Yolo County General Plan (Yolo County 2009a).

The Project will result in 0.62 acre of temporary impact and 0.12 acre of permanent impact to Cache Creek. The temporary impacts would result from potential diversion/dewatering activities and construction access to install RSP, remove the existing bridge deck, and work on the falsework for the replacement bridge. Permanent impacts would result from installation of RSP at the new abutments and around the adjacent south abutment. The RSP is needed to stabilize and protect the new abutments from scour. Construction has the potential to temporarily impact water quality. During construction, water quality will be protected by implementation of BMPs. Flow levels in Cache Creek are highly dependent upon releases from the Cache Creek Dam. The timing of in-water work will be determined by the timing and amount of cfs discharge in Cache Creek. Implementation of measure MM BIO-6 will reduce potential impacts to less than significant. Implementation of APM BIO-1 (General Avoidance Biological Resources) and MM BIO-5 (Foothill Riparian) will also reduce potential impacts to Cache Creek.

- d) ***Less Than Significant Impact.*** Construction of the project could temporarily disrupt movement of native wildlife species that occur in or adjacent to the Project area. Daytime construction activities will result in minimal disruption of nocturnal wildlife movement. Although construction disturbance may temporarily hinder wildlife movements within the project area, the impact is less than significant due to its short-term nature.
- e) ***No Impact.*** The 2007 Yolo County Oak Woodland Conservation and Enhancement Plan promotes voluntary efforts to conserve and enhance the county's existing oak woodlands, which provide significant aesthetic, ecological, and economic benefits. The Project does not conflict with any local policies or ordinances protecting biological resources. See also discussion below regarding the Yolo HCP/NCCP.
- f) ***No Impact.*** The Yolo HCP/NCCP addresses public and private activities and the protection of 12 covered species and the land on which these species depend within Yolo County. The Yolo HCP/NCCP ensures and streamlines compliance with the Federal Endangered Species Act (FESA), Natural Communities Conservation Planning Act (NCCPA), and CESA for covered activities that may affect the covered species. Pursuant to Section 10(a)(1)(B) of FESA and Section 2835 of the NCCPA chapter of the California Fish and Game Code (Fish & Game Code), the Yolo HCP/NCCP provides Permittees (i.e., Yolo County, the four incorporated cities, and the Conservancy) with incidental take permits for the 12 covered species.

The Project is a rural infrastructure project and is a "covered activity" under the HCP/NCCP. The Project will be implemented in compliance with permit requirements and conditions as well as

avoidance and minimization measures that are listed in the HCP/NCCP. As applicable, the project will pay mitigation fees for the acreage of land-cover types that are permanently and temporarily impacted by the project and implement project-specific AMMs. The project specific Yolo HCP/NCCP AMMs that apply to the Project are AMMs 1, 3, 4, 5, 6, 8, 9, 10, 13, 14, 16, 17, 18, 19, 20, and 21 which are described above and noted below with the associated mitigation measures as applicable.

Mitigation Measures

MM BIO-1 Foothill Yellow-Legged Frog (FYLF) (Incorporates/Implements Yolo HCP/NCCP AMM 6 {Conduct Worker Training}

- *Within 48 hours prior to the start of work within or along Cache Creek, a qualified biologist will conduct a preconstruction survey for all life stages (i.e. eggs, tadpoles, froglet, adult) of FYLF, and other special-status amphibians and reptiles. The survey area will include the construction area and the creek for 500 feet upstream and downstream of the existing bridge. If the qualified biologist discovers any life stage of special-status amphibians or reptiles, a biological monitor experienced with the identification and biology of the species will monitor construction activities within the disturbance area to verify that no special-status amphibians or reptiles are harmed.*
- *All construction personnel will participate in a worker environmental training program approved/authorized by the Conservancy and administered by a qualified biologist. The training will provide education regarding sensitive natural communities and covered species and their habitats, the need to avoid adverse effects, state and federal protection, and the legal implications of violating the FESA and NCCPA Permits. Prior to the start of construction, a qualified biologist will conduct a training session for all construction personnel that includes a description of special-status species with potential to occur in the construction area and their habitat. The training will explain who to contact and how to proceed if FYLF or other special-status species are encountered. The training will describe the specific measures to be implemented to avoid impacts to these species.*

MM BIO-2 Western Pond Turtle (WPT) (Incorporates/Implements Yolo HCP/NCCP AMM 4 {Cover Trenches and Holes during Construction and Maintenance} and AMM 14 {Minimize Take and Adverse Effects on Habitat of Western Pond Turtle})

- *A qualified biologist shall conduct a preconstruction survey for WPT within 48 hours prior to the onset of vegetation removal or ground disturbance in the Project area.*
- *The qualified biologist will be present during installation and removal of the diversion structure and dewatering activities as applicable. If any WPT are found during diversion/dewatering activities, construction activities will stop to allow the biologist sufficient time to relocate the WPT. WPT will be relocated to the closest suitable habitat where they will not be affected by construction. Construction will resume when the biologist has either relocated the WPT out of the construction zone to nearby suitable habitat, or, after thorough inspection, determined that the WPT has moved away from the construction zone.*

- *The qualified biologist will monitor all initial ground disturbing activity for nests that may be unearthed during the disturbance, and will move out of harm's way any turtles or hatchlings found.*
- *To prevent injury and mortality of wildlife, workers will cover open trenches and holes associated with implementation of covered activities that affect habitat for these species or design the trenches and holes with escape ramps that can be used during non-working hours. The construction contractor will inspect open trenches and holes prior to filling and contact a qualified biologist to remove or release any trapped wildlife found in the trenches or holes.*

MM BIO-3 Nesting Birds Listed Under the Federal MBTA, State MBPA, or Regulated by CA Fish and Game Code

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

- *If construction begins outside the 1 February to 31 August breeding season, there will be no need to conduct a preconstruction survey for active nests.*
- *Vegetation (trees and shrubs) scheduled for removal should be removed during the non-breeding season from 1 September to 31 January.*
- *If construction or vegetation removal occurs between 1 February and 31 August, a biologist shall conduct a survey for active bird of prey nests within 250 ft and active MTBA bird nests within 100 ft of the Project area from accessible areas within one week prior to construction. The measures listed below shall be implemented based on the survey results.*

No Active Nests Found:

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

Active Nests Found:

- *If an active nest of a bird of prey, MBTA bird, or other CDFW protected bird is discovered that may be adversely affected by construction activities or an injured or killed bird is found, immediately:*
 1. *Stop all work within a 300-foot radius of the active nest*
 2. *Notify the Engineer*
 3. *Do not resume work within the specified radius of the discovery until authorized.*
- *The biologist shall establish a minimum 300-foot ESA if the nest is of a bird of prey, and a minimum 100-foot ESA around the nest if the nest is of an MBTA bird other than a bird of prey.*

Bird Species Protection Areas

| Identification | Location |
|---|--------------------------------------|
| <i>Bird of prey</i> | <i>300 ft, no-disturbance buffer</i> |
| <i>MBTA protected bird (not bird of prey)</i> | <i>100 ft, no-disturbance buffer</i> |

- *Activity in the ESA will be restricted as follows:*
 1. *Do not enter the ESA unless authorized.*
 2. *If the ESA is breached, immediately:*
 - a. *Secure the area and stop all operations within 60 feet of the ESA boundary*
 - b. *Notify the Engineer*
 3. *If the ESA is damaged, the County determines what efforts are necessary to remedy the damage and who performs the remedy.*
- *No construction activity shall be allowed in the ESA until the biologist determines that the nest is no longer active, or unless monitoring determines that a smaller ESA will protect the active nest.*
- *The ESA may be reduced if the biologist monitors the construction activities and determines, in consultation with CDFW, that no disturbance to the active nest is occurring. Reduction of the ESA depends on the species of bird, the location of the nest relative to the Project, Project activities during the time the nest is active, and other Project-specific conditions.*
- *Between 1 February and 30 September, if additional vegetation removal is required after construction has started, a survey will be conducted for active nests in the area to be affected. If an active nest is found, the above measures will be implemented.*
- *If an active nest is identified in or adjacent to the construction zone after construction has started, the above measures will be implemented to ensure construction is not causing disturbance to the nest.*

MM BIO-4 Western Red Bat

- *If any cottonwood or willow trees will be removed by project activities, tree removal will be conducted in a two-phased approach that removes non-habitat features one day prior to habitat features. Habitat features will be determined by a qualified biologist. Non-habitat vegetation adjacent to habitat trees will be removed. Non-habitat structural features on habitat trees will also be removed. Trees will be left overnight, allowing bats potentially roosting in habitat features to vacate the tree. The remainder of the tree will be removed the following day.*
- *Personnel shall not attempt to directly disturb (e.g. shake, prod) roosting features, as such disturbance constitutes "harassment" under 14 CCR § 251.1.*
- *If maternity roosts are detected, tree removal will be conducted between 16 September and 14 April to avoid the maternity period of roosting bats.*

MM BIO-5 Valley Foothill Riparian (Incorporates Yolo HCP/NCCP AMM 1 {Establish Buffers}, AMM 3 {Confine and Delineate Work Area}, AMM8 {Avoid and Minimize Effects of Construction Staging Areas and Temporary Work Areas}, AMM9 {Establish Buffers around Sensitive Natural Communities})

- *Environmentally Sensitive Area (ESA) fencing will be used to delimit work areas in the vicinity of protected resources. The limits of construction will be marked with temporary fencing or flagging. Trucks and other vehicles will not be allowed to park beyond, nor shall equipment be stored beyond, the fencing. No vegetation removal or ground disturbing activities will be permitted beyond the fencing. Incorporation of this measure will help ensure that trees are not impacted beyond what is permitted by construction entitlements.*

MM BIO-6 Cache Creek (Incorporates Yolo HCP/NCCP AMM 10 {Avoid and Minimize Effects on Wetlands and Waters})

- *The Project will acquire applicable permits from the Corps, the Regional Water Quality Control Board, and the California Department of Fish and Wildlife prior to conducting any work in the creek. The Project will abide by the terms of permits acquired, including any limited operating periods restricting the time of year when work in the creek may occur.*
- *If work in the flowing portion of the stream is unavoidable, the entire stream flow shall be diverted around or through the work area during the excavation and/or construction operations. Sufficient water shall at all times be allowed to pass downstream to maintain aquatic life below the project area. Any temporary dam or other artificial obstruction constructed shall only be built from clean materials such as k-rails, water pillows, silt fencing, gravel, sandbags, visqueen sheeting, steel sheet piles, or similar materials to create a cofferdam which will cause little or no siltation. Stream diversions shall be removed prior to the winter period.*
- *Any temporary diversion structure will be designed so that fish passage is maintained through the Project site. The diversion will not create an impassible barrier to fish passage. The contractor will prepare a creek dewatering plan that complies with any applicable permit conditions. Water diversion in Cache Creek will be conducted in accordance with the Yolo County Stormwater Management Plan (Yolo Co, 2004).*
- *If creek diversion is required, a qualified biologist will conduct a survey of the area to be diverted prior to diversion installation. The qualified biologist will be present during installation and removal of the diversion structure and dewatering activities.*
- *If pumps are used to temporarily divert or dewater the impoundment on Cache Creek to facilitate construction, an acceptable fish screen must be used to prevent entrainment or impingement of small fish. All temporary diversion structures and materials will be removed from the creek prior to the completion of the Project.*
- *The project will develop a dewatering plan in accordance with Section 13 Water Pollution Control of the Caltrans Standard Specifications.*

5.2.5 Cultural Resources

| Would the project: | <i>Potentially Significant Impact</i> | <i>Less Than Significant with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |
|---|---------------------------------------|---|-------------------------------------|--------------------------|
| a) Cause a substantial adverse change in the significance of a historical resource pursuant to §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) Disturb any human remains, including those interred outside of formal cemeteries? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Environmental Setting

Far Western Anthropological Research Group, Inc. (Far Western) conducted a cultural resources study of Project area (Far Western 2020). Far Western requested a records search from the Northwest Information Center (NWIC) of the California Historical Resources Information System on 2 April 2019. The records search identified six previously recorded resources and five previous studies within one quarter mile of the Project area. Historic-era resources include the County Road 40 Bridge itself, County Road 40, and two additional historic-era built environment resources in the one-quarter-mile search radius. One archeological resource was identified within a portion of the Project area. An additional archeological resource record occurs outside the Project area in the one-quarter-mile records search radius.

Far Western contacted the California Native American Heritage Commission (Commission) to request information on known Native American traditional or cultural properties within the Cache Creek Bridge Replacement Project area. The Commission responded on 15 April, 2019, that a search of the Sacred Lands File produced positive results, and that the Yocha Dehe Wintun Nation (Yocha Dehe) should be contacted for further information.

The Commission also provided a list of three Native American contacts that might have information or concerns pertinent to the project. Letters and notification emails requesting Section 106 consultation were sent April 23, 2019, with follow-up phone calls on May 12, 2019. Yocha Dehe responded with a request to formally consult with the lead agencies. The Kletsel Dehe Band of Wintun Indians responded that they have no comments at this time, and United Auburn Indian Community did not respond.

On 24 June, 2019 a meeting to discuss the Project was held at the Yocha Dehe's tribal headquarters with two tribal members, Yolo County staff, and Far Western staff. Based on concerns expressed by Yocha Dehe, the County revised the Project design by moving the proposed bridge crossing east, in line with the original County Road 40 Bridge and road alignment. The redesign largely avoids the area of Yocha Dehe concern. To further protect the site, the County also agreed to include a boulder barrier along the northern edge of the road to limit vehicular traffic into the area of Yocha Dehe concern and to place a permanent layer of fill on the existing road surface for the length of CR 40 in the project area.

A field meeting was held on Monday, 4 November 2019 to review the proposed changes to the project design and footprint and discuss the results of subsurface testing. In attendance were two tribal members, Yolo County staff, Caltrans staff, and Far Western staff. In a letter dated 5 September 2019 the Yocha Dehe tribe sent a letter to Caltrans describing the consultation and coordination between Yocha Dehe and the County. The letter states that with the design revisions and other protective measures additional archeological testing of the site is not needed.

Far Western contacted local historical groups that might be interested in the project and may have information on the history of the Project area. On 23 January 2020, Far Western sent letters (by mail and email) describing the Project and current results of historical research and soliciting input to the following groups: Yolo County Historical Society, Yolo County Archives, and The Greater Capay Valley Historical Society. Elizabeth Monroe responded on behalf of The Greater Capay Valley Historical Society by email on the same day stating that, while the bridge may have some local historical significance, she has “never heard anyone say anything but that it needs to be replaced for the sake of use and safety for everyone in the Capay Valley.”

Applicant Proposed Measures (APM)

AMP CULT-1 Unanticipated Discoveries

- Contract provisions will require notification of the County and compliance with California Health and Safety Code Section 7050.5 and California Public Resources Code Sections 5097.5, 5097.9 et seq., regarding the discovery and disturbance of cultural materials or human remains should any be discovered during project construction.

Potential Environmental Effects

- a) ***Less Than Significant with Mitigation Incorporated.*** An abandoned section of the CR 40 Toll Road, depicted on historical maps (1900–1926) and visible in aerial photos (1937), was identified during the survey as a distinct, nearly level road cut into the hillslope above and south of the current CR 40 alignment. This approximately 10-foot-wide road lies immediately adjacent to and intersects the Project area on the southeastern side. It continues eastward around a bedrock ridge within a well-defined cut and is no longer visible on the creekside terrace farther east. This section of road was likely abandoned about 1930 when the CR 40 Bridge was first installed. It is currently used as part of the Blue Ridge Trail. Implementation of MM CULT-1 will reduce potential impacts to less than significant. Impacts are considered less than significant.
- b) ***Less Than Significant with Mitigation Incorporated.*** The cultural resources study identified one archeological resource within a portion of the Project area. As the result of close and continued coordination with the Yocha Dehe Wintun Nation during Project development the design was altered to largely avoid the area of concern. The County also agreed to provide additional protections for the resources including cultural sensitivity training, installation of a boulder barrier along the northern edge of CR 40 south of Cache Creek, and to place a permanent layer of imported fill material on the existing CR 40 road surface within the project limits south of Cache Creek. Implementation of MM CULT-1 will reduce potential impacts to less than significant.

- c) ***Less Than Significant Impact.*** The Project cultural resources study (Far Western 2020) documents that no known cemeteries or burials occur within the project area of direct impact. APM CULT-1 (Unanticipated Discoveries) would further reduce this already less than significant impact.

Mitigation Measures:

MM CULT-1 Cultural Resource Protections

- *To ensure protection of the archeological/ historical sites against inadvertent impacts, the Project will implement the approved Environmentally Sensitive Area (ESA) Action Plan. No project work or staging will be allowed within the ESA. The ESA will be clearly delineated on construction plans and specifications.*
- *A line of boulders will be set along the northern side of the CR 40 road fill, south of the bridge within the Project limits, to limit vehicular traffic into the area of Yocha Dehe concern.*
- *South of the Cache Creek bridge within the Project limits the existing grade will be elevated with imported fill material and confined to the existing footprint of the road.*
- *Prior to the initiation of construction, all construction personnel will be trained by a qualified archaeologist meeting federal criteria under 36 CFR 61 regarding the recognition of possible buried cultural resources (i.e., prehistoric and/or historical artifacts, objects, or features) and protection of all archaeological resources during construction. Training will inform all construction personnel of the procedures to be followed upon the discovery of cultural materials. All personnel will be instructed that unauthorized removal or collection of artifacts is a violation of State law. Any excavation contract (or contracts for other activities that may have subsurface soil impacts) will include clauses that require construction personnel to attend the Workers' Environmental Training Program, so they are aware of the potential for inadvertently exposing buried archaeological deposits.*
- *Construction within the Project limits will involve ground disturbance. Ground disturbing activities will be monitored by a tribal cultural monitor and a qualified archaeologist meeting federal criteria under 36 CFR 61. Any buried cultural material encountered during ground-disturbing activities should be identified and evaluated on-site by the qualified archaeologist. If previously unidentified cultural resources are identified during ground disturbance activities, work within 25 feet of the find will be halted and directed away from the discovery until the archaeologist assesses the potential significance of the resource in terms of eligibility for listing on the CRHR. If assessed as potentially eligible, the archaeologist, in consultation with the CEQA lead agency, State Historic Preservation Officer, and the Yocha Dehe Wintun Nation, will make the necessary plans for treatment of the find(s).*

5.2.6 Energy

| Would the project: | <i>Potentially Significant Impact</i> | <i>Less Than Significant with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |
|---|---------------------------------------|---|-------------------------------------|--------------------------|
| a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

a) ***Less Than Significant.*** All construction equipment would be regulated per the California Air Resources Board (CARB) In-Use Off-Road Diesel Vehicle Regulation. CARB standards for construction equipment includes measures to reduce emissions from vehicles by subjecting fleet owners to retrofit or accelerated replacement/repower requirements and imposing idling limitations on owners, operators, renters, or lessees of off-road diesel vehicles.

Project construction would also be required to comply with all applicable YSAQMD rules and regulations. Future maintenance activities (e.g. vegetation control) would likely involve the use of electric or gas-powered equipment.

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

b) ***Less Than Significant.*** The Project is the replacement of an existing bridge. Operations of the replacement bridge will not require continuous energy inputs. Yolo County currently does not have an adopted plan for renewable energy or energy efficiency. In the event that a plan for renewable energy or energy efficiency is adopted prior to the Project receiving its entitlements, the Project would comply with the applicable plan measures. Impacts are considered less than significant.

Mitigation Measures: None required

5.2.7 Geology and Soils

| Would the project: | <i>Potentially Significant Impact</i> | <i>Less Than Significant with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |
|--|---------------------------------------|---|-------------------------------------|------------------|
| a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: | | | | |

| | | | | |
|--|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| ii) Strong seismic ground shaking? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iii) Seismic-related ground failure, including liquefaction? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iv) Landslides? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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 offsite 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 direct or indirect 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 waste water disposal systems where sewers are not available for the disposal of waste water? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Environmental Setting

Roughly the eastern 70 percent of the County is located in the Great Valley geomorphic province of California, and consists of gently sloping to level alluvial plains. The remaining 30% of the County, including the Project location, is in the Coast Range geomorphic province. Elevations in the County range from slightly above sea level in the southeastern corner of the County to more than 3,000 feet in the western area in the Coast Range.

The western Coast Range portion of the County consists of moderately sloping to very steep uplands and terraces and is characterized by parallel ridges and valleys that trend slightly west of north. The rocks in the Coast Range consist of a number of Quaternary and Cretaceous geologic formations, including upturned marine sandstones, shales, mudstones, and conglomerates, with some volcanoclastic rocks.

Seismicity is defined as the geographic and historical distribution of earthquake activity. Seismic activity may result in geologic and seismic hazards including seismically induced fault displacement and rupture, ground shaking, liquefaction, lateral spreading, landslides and avalanches, and structural hazards.

The California Geologic Survey (CGS) considers a fault to be active if it has shown evidence of ground displacement during the Holocene Period, defined as the last 11,700 years (Crawford 2019). The only fault in the County that has been identified by the CGS to be active, or potentially active, and subject to surface rupture (i.e., is delineated as an Alquist-Priolo Earthquake Fault zone) is the Hunting Creek Fault (Yolo County 2009b). The fault is located in the extreme northwestern corner of the County approximately 5.6 miles west of the Project site (Crawford 2019). Only a very short section of the fault occurs in the County; most of the trace is located in Lake and Napa counties. The only other potentially active fault in the County

is the Dunnigan Hills Fault, which extends west of Interstate 5 between the town of Dunnigan to northwest of the town of Yolo. The California Department of Conservation's 2010 Fault Activity Map of California indicates that several pre-quaternary faults occur in the vicinity of the Project site.

Steep slopes underlain by Cretaceous rocks along Cache Creek are susceptible to landsliding and numerous large and small landslides have been mapped in this area (Yolo County 2009b). Per General Plan Figure IV.L-6, except for the communities of Capay and Brooks, landslides are generally not a significant hazard to life or property in the County. Most of the areas subject to landsliding are in open space and agricultural use (e.g., grazing) or are otherwise undeveloped (Yolo County 2009b).

Liquefaction is the temporary transformation of loose, saturated granular sediments from a solid state to a liquefied state as a result of seismic ground shaking. In the process, the soil undergoes transient loss of strength, which commonly causes ground displacement or ground failure to occur. Since saturated soils are a necessary condition for liquefaction, soil layers in areas where the groundwater table is near the surface have higher liquefaction potential than those in which the water table is located at greater depths. No map of liquefaction hazard has been prepared on a Countywide basis. Upland areas are at relatively low risk of liquefaction, except in the intermountain valleys underlain by alluvium and shallow groundwater. Liquefaction is expected to be relatively higher in the Great Valley portion of the County, particularly along the floodplains of streams, where the sediments are generally sandier than other areas. Liquefaction may also lead to lateral spreading (Yolo County 2009b).

The locations of ultramafic rocks have been mapped by the Division of Mines and Geology in an effort to generally identify areas likely to contain Naturally Occurring Asbestos (NOA). The only area of mapped ultramafic rocks in the County occurs along Little Blue Ridge, west of Rumsey approximately 4 miles west of the Project area (CDOC 2000).

Potential Environmental Effects

- a) ***a-i) Less Than Significant Impact.*** The site does not lie within an Alquist-Priolo Earthquake Fault Zone and no known active faults are mapped within or through the project area (Crawford 2019). The Hunting Creek Fault is the only fault in the County that has been identified by the CGS to be active and subject to surface rupture (i.e., is delineated as an Alquist-Priolo Earthquake Fault zone) (Yolo County 2009b). The Project site is located on the Glascock Mountain quad approximately 11 miles north of the active portion of the Hunting Creek Fault mapped on the Knoxville Alquist-Priolo Earthquake Fault zone map. The Project is the replacement of an existing bridge structure consistent with the applicable County, Caltrans, and the AASHTO standards and guidelines. Given the nature of the Project and the distance to the known active fault location, impacts are considered less than significant.

a-ii) Less Than Significant Impact. Earthquake shaking hazards are calculated by projecting earthquake rates based on earthquake history and fault slip rates, the same data used for calculating earthquake probabilities (California Department of Conservation 2020a). Calculations of earthquake shaking hazard for California are part of a cooperative project between USGS and California Geologic Survey (CGS), and are part of the National Seismic Hazard Maps. Yolo County General Plan DEIR Figure IV.L-4 (Regional Ground Shaking Hazard) shows potential seismic shaking based

on National Seismic Hazard Map calculations plus amplification of seismic shaking due to the near surface soils. Per Figure IV.L-4 the Project is located in a region where shaking hazards that are 'distant from known, active faults and will experience lower levels of shaking less frequently. In most earthquakes, only weaker, masonry buildings would be damaged. However, very infrequent earthquakes could still cause strong shaking here.' The Project is not in a seismic hazard zone, and impacts are considered less than significant.

a-iii) Less Than Significant Impact. Based on the presence of shallow bedrock at this site and the proposed bridge foundation design the potential for liquefaction is considered low (Crawford 2019). The site soils/bedrock are considered competent. Impacts are considered less than significant.

a-iv) Less Than Significant Impact. The Project is located on relatively flat ground. No over-riding geologic hazards, including landslides were identified by either published geologic mapping or observations made at the site (Crawford 2019). Impacts are considered less than significant.

- b) **Less Than Significant Impact.** Construction of the proposed project could introduce sediments and other contaminants typically associated with construction into stormwater runoff. The SWRCB is responsible for implementing the Clean Water Act and has issued a statewide General Permit (Water Quality Order 2009-0009-DWQ) for construction activities. In the Project area, the Construction General Permit is implemented and enforced by the Central Valley Regional Water Quality Control Board (CVRWQCB). Projects resulting in disturbance of one acre or more are required to obtain coverage under the Construction General Permit. The proposed Project will disturb approximately 1.26 acres and will require coverage under the SWRCB Construction General Permit.

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

Compliance with the various requirements of the SWRCB statewide general permit for construction will ensure that water quality impacts during the construction phase of the proposed project would be considered less than significant. Implementation of APM BIO-1 would further reduce this already less than significant impact by implementation of the 2008 County of Yolo Improvement Standards, Section 11, Stormwater Quality, Erosion and Sediment Control and the current edition of the Caltrans Stormwater Quality Handbooks (<http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm>).

- c) **Less Than Significant Impact.** As per the Project draft Foundation Report (Crawford 2019) the site soils/bedrock are considered competent. The Project does not include activities that would result in soil units onsite becoming unstable, and potentially result in on or offsite landslide, lateral spreading, subsidence, liquefaction or collapse. Impacts are considered less than significant.
- d) **Less Than Significant Impact.** Expansive soils that may swell enough to cause problems with paved surfaces are generally clays falling into the AASHTO A-6 or A-7 groups, or classified as CH, MH, or OH by the Unified Soil Classification System (USCS), and with a Plasticity Index greater than about 25 as determined by ASTM D4318. Chapter 610 of the Caltrans Highway Design Manual (2012) defines an expansive subgrade to include soils with a Plasticity Index greater than 12 (Caltrans 2012).

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

AASHTO and USCS classification for the soils in the Project area are listed in Table 5 (NRCS 2020). The NRCS Web Soil Survey indicates the maximum plasticity index of soils in the Project area is 29 (NRCS 2020). Soils in the Project area may have a moderate expansion potential.

Table 5. AASHTO and USCS soil classes for Project area

| Map Units In Project Area | Classification | |
|--|----------------|---|
| | AASHTO | USCS |
| Dibble clay loam, 14 to 55 percent slopes, eroded, MLRA 15 | A-7-6 | CL: Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays |
| Millsholm rocky loam, 15 to 75 percent slopes, eroded | A-4 | CL: Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays |
| Rock Land | NA not soil | NA |
| Water | NA not soil | NA |

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

- e) **No Impact.** The proposed Project does not include the use of septic tanks or alternative waste water disposal systems. No impact will occur.
- f) **Less Than Significant with Mitigation Incorporated Less:** Paleontological resources are known to occur in Yolo County, and the geological formations that underlie Yolo County are generally paleontologically sensitive. The Project would not likely impact paleontological features. There is the possibility of accidental paleontological discoveries during construction-related ground-disturbing activities. Implementation of GEO-1 will reduce this potential impact to less than significant.

Mitigation Measures:

MM GEO-1 Unanticipated Paleontological Discoveries

- *Implement Caltrans Standard Specification 14-7.03, which requires that if unanticipated paleontological resources are discovered, work shall halt within 60 feet of the discovery and the engineer shall be notified.*

- *If paleontological resources (i.e., fossils) are discovered during project construction, all work within 60 feet of the discovery site will stop until a qualified paleontologist can assess the importance of the find and recommend appropriate treatment. Yolo County will be responsible for ensuring that recommendations regarding treatment are implemented.*

5.2.8 Greenhouse Gas Emissions

| Would the project: | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|-------------------------------------|--------------------------|
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | <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

Greenhouse gases (GHGs) are recognized by wide consensus among the scientific community to contribute to global warming/climate change and associated environmental impacts. The major GHGs that are released from human activity include carbon dioxide, methane, and nitrous oxide (OPR 2008). The primary sources of GHGs are vehicles (including planes and trains), energy plants, and industrial and agricultural activities (such as dairies and hog farms).

Greenhouse gas emissions for transportation projects can be divided into those produced during operations and those produced during construction. The proposed Project does not increase the capacity of CR 40 and would not increase operational GHG levels. The discussion below therefore focuses on construction related GHG emissions of the Project.

Potential Environmental Effects

- a) ***Less Than Significant Impact.*** Off-site production of construction materials and onsite construction of the proposed Project would generate short-term emissions of greenhouse gases. The Project is the replacement of an existing bridge that does not increase the capacity of CR 40. CR 40 will remain closed to the general traveling public following construction. As of January 1, 2017, the CALGreen building code waste diversion requirement states that at least 65% of construction materials generated during new construction or demolition projects shall be diverted from the landfill. The County considers the reuse and recycling of C&D debris essential to compliance with AB939 (Solid Waste Management, Source Reduction, Recycling, Composting, And Market Development). Implementation of APM AQ-1 and APM AQ-2 would further reduce this already less than significant impact.

- b) **Less Than Significant Impact.** Yolo County has taken steps to reduce overall emissions in the county in an effort to reduce GHG emissions and address economic and social adaptation to the effects of climate change. The County’s General Plan policies and their Climate Action Plan (CAP) address these issues. In order to demonstrate project-level compliance with CEQA relevant to GHG emissions and climate change impacts, applications for discretionary projects must demonstrate consistency with the General Plan and CAP. In addition, the County established a working group to implement the County’s Climate Change Initiative, aimed at reducing transportation emissions by encouraging the use of electric vehicles, reducing County vehicle trips and purchasing low-polluting construction equipment (Yolo County 2019b). Implementation of the proposed project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. Implementation of APM AQ-1 and APM AQ-2 would further reduce this already less than significant impact.

Mitigation Measures: None required

5.2.9 Hazards and Hazardous Materials

| Would the project: | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|-------------------------------------|-------------------------------------|
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | <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 type="checkbox"/> | <input checked="" 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 type="checkbox"/> | <input checked="" 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 or excessive noise for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) 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"/> |
| g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Environmental Setting

A hazardous material is defined by the California EPA, Department of Toxic Substances Control (DTSC), as a material that poses a significant present or potential hazard to human health and safety or the environment if released because of its quantity, concentration, or physical or chemical characteristics (26 California Code of Regulations (CCR) 25501).

According to Title 22 of the CCR (22 CCR) Section 66261.20, the term “hazardous substance” refers to both hazardous materials and hazardous wastes; both are classified according to four properties: toxicity, ignitability, corrosiveness, and reactivity.

A hazardous material is defined by 22 CCR Section 66261.10 as a substance or combination of substances that may cause or significantly contribute to an increase in serious, irreversible, or incapacitating illness or may pose a substantial presence or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

While public health and safety is potentially at risk whenever hazardous materials are or will be used, the risk is determined by the probability of exposure and to the inherent toxicity of a material. Factors that can influence health effects when human beings are exposed to hazardous materials include the dose the person is exposed to, the frequency of exposure, the duration of exposure, the exposure pathway (route by which a chemical enters a person’s body), and the individual’s unique biological susceptibility.

Hazardous wastes are hazardous substances that no longer have practical use, such as materials that have been discarded, discharged, spilled, or contaminated or are being stored until they can be disposed of properly (22 CCR Section 66261.10). Soil that is excavated from a site containing hazardous materials is a hazardous waste if it exceeds specific 22 CCR criteria.

Hazardous materials transport within California is subject to various federal, state, and local regulations. The California Highway Patrol (CHP) designates through routes to be used for the transportation of hazardous materials. Transportation of hazardous materials is generally restricted to these routes. Hazardous materials transport within the project area is subject to various federal, state, and local regulations.

The following provisions pertaining to the transportation of hazardous-related materials are included in the California Vehicle Code:

- Inhalation hazards and poison gases are subject to additional safeguards. These materials are highly toxic, spread rapidly, and require rapid and widespread evacuation if there is loss of containment or a fire. The CHP designates through routes to be used for the transportation of inhalation hazards. It may also designate separate through routes for the transportation of inhalation hazards composed of any chemical rocket propellant (Section 32100 and Section 32102(b)).

Applicant Proposed Measures (APM)

APM HAZ-1 Cal/OSHA Worker Health and Safety

- Contract provisions will require a licensed asbestos contractor, certified by the State of California, and registered with Cal/OSHA to perform any asbestos related removal work.

- For compliance with Title 8, Section 341.9, the asbestos contractor must send written notice at least one day (24 hours) prior to start of any work which will impact any amount of asbestos to the local office for the State of California, Department of Occupational Safety and Health, and perform all work in accordance with Cal/OSHA requirements.

Potential Environmental Effects

- a) ***Less Than Significant Impact.*** Small amounts of hazardous materials would be used during construction and operation activities (i.e., equipment maintenance, fuel, and solvents). Implementation of the proposed Project would continue the use, transport, and disposal of potentially hazardous materials on and in the vicinity of the project site, similar to existing conditions. The Project is required to comply with federal, state, and local regulations regarding the storage, handling, transportation, disposal, and cleanup of hazardous materials. Use of hazardous materials in accordance with applicable standards ensures that any exposure of the public to hazard materials would have a less-than-significant impact.
- b) ***Less Than Significant Impact.*** Pinnacle Environmental, Inc. prepared an Initial Site Assessment (ISA) to determine if known recognized environmental conditions (RECs) occur in the Project area (Pinnacle 2018). The ISA identified one REC. Pinnacle’s review of the EDR Database and DTSC’s Envirostor website indicated that mercury from historic mining and natural sources has impacted the greater Cache Creek watershed in Lake, Colusa and Yolo Counties, as well as downstream areas extending to the Delta and San Francisco Bay. Based on the available maps, there are no mines of concern in the immediate area, thus direct impact to the Project site is not expected, but indirect impacts through downstream transport of contaminants have been shown within the greater watershed. Mercury has been found in sediments, soil and surface water, as well as in the biota (e.g., fish, plants) of the watershed. The concentrations of mercury vary widely both in the various media and biota in the watershed, but are generally low. The ISA recommended that sampling should be performed to evaluate the concentrations of mercury and whether additional actions may be necessary.

Pinnacle Environmental, Inc. conducted a Limited Phase II soil sampling investigation to evaluate the concentrations of mercury present in the Project area soils. A total of four soil samples were collected from the four selected locations at the Project site. The results of the Limited Phase II soil sampling investigation are summarized below (Pinnacle 2019).

All soil samples were analyzed for total mercury via EPA Method 6010. The samples were also analyzed for total lead to evaluate the site soils for potential Aerially Deposited Lead (ADL). The reported laboratory concentrations of total mercury for all samples did not exceed a 10 times multiplier (2.0 mg/kg) of the Soluble Threshold Limit Concentration (STLC) for Total Mercury of 0.2 mg/kg, and therefore were not considered to be potential hazardous waste. For comparison purposes, when the laboratory TTLC concentrations for total mercury from this limited assessment are compared to the San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Environmental Screening Levels (ESLs) – Tier 1 Residential Shallow Soil Exposure (the most conservative level), the above results are well below the ESL of 13.0 mg/kg. The Construction

Worker Exposure ESL, a more appropriate ESL for comparison in relation to the subject project, is even higher at 44.0 mg/kg.

In the first comprehensive scientific database of the background concentrations of trace and major elements in 50 benchmark California soil types published by the University of California and titled “Background Concentrations of Trace and Major Elements in California Soils” (Kearney, 1996) the mean value for Mercury in California soils was found to be 0.26 mg/kg. The background sample from outside of the Cache Creek inundation zone was reported to be 0.221 mg/kg, which is within the range found near the bridge, and very close to the background concentrations discussed above. Based upon this information, and since soil is reportedly not planned to be exported from the project, mercury is not expected to be a concern for the Project.

The reported laboratory concentrations of total lead for all samples did not exceed a 10 times multiplier (50.0 mg/kg) of the STLC for total lead of 5.0 mg/kg, and therefore are not considered to be potentially hazardous waste concentrations. Per the “Background Concentrations of Trace and Major Elements in California Soils” (Kearney 1996) the mean value for Lead in California soils was found to be 23.9 mg/kg. The background sample from outside of the Cache Creek inundation zone was reported to be 5.58 mg/kg, which is close to the range found near the bridge, and well below the background concentrations discussed above. Based upon this information, lead is not expected to be a concern for the Project.

As discussed in item a) above, the use, disposal, and transportation of all hazardous materials associated with the proposed project would require compliance with federal, state, and local regulations regarding hazardous materials (APM HAZ-1). Management of hazardous materials in accordance with applicable standards ensures that any exposure of the public to hazardous materials would have a less-than-significant impact.

- c) **No Impact.** No schools occur within 0.25 mile of the Project site.
- d) **Less Than Significant Impact.** See discussion under Item b) above.
- e) **No Impact.** The Project is not located within two miles of a public airport or public use airport and no private air strips occur in close proximity to the Project.
- f) **Less Than Significant Impact.** The purpose of the proposed Project is to increase public safety by providing a bridge that will meet Caltrans and the AASHTO LRFD Bridge Design Specifications. Due to the closure of the CR 40 Bridge over Cache Creek, in 2015 CalFire was forced to make a 50-mile detour to reach the fire lines associated with the Rocky Fire. The bridge replacement is needed to provide CalFire and other emergency responders access across the creek during wildfires or other emergency events. The structure will be constructed with a horizontal curve radius of 132-feet, to accommodate CalFire’s 72-foot long tractor and trailer vehicle used to transport their fire-fighting equipment across Cache Creek. The bridge is currently closed and will remain closed for the duration of construction. Project construction activities would be coordinated with local law enforcement and emergency services providers as applicable.
- g) **Less Than Significant Impact.:** The completed Project will not expose people or structures to a new or increased significant risk of loss, injury or death involving wildland fires. The purpose of the proposed Project is to increase public safety. provide a bridge that will meet Caltrans and the American Association of State Highway and Transportation Officials (AASHTO) Load and

Resistance Factor Design (LRFD) Bridge Design Specifications. The bridge replacement is needed to provide CalFire and other emergency responders access across the creek during wildfires or other emergency events.

Mitigation Measures: None required

5.2.10 Hydrology and Water Quality

| Would the project: | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|-------------------------------------|--------------------------|
| a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: | | | | |
| i. result in substantial erosion or siltation on- or off-site | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iv. Impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Environmental Setting

The Project is located in the Upper Cache Hydrologic Unit (Hydrologic Unit Code 18020116). Section 13240 of the Porter-Cologne Water Quality Control Act requires each Regional Board to formulate and adopt water quality control plans, or basin plans, for all areas within the Region. The Porter-Cologne Act also requires each Regional Board to establish water quality objectives to ensure the reasonable protection of beneficial uses and a program of implementation for achieving water quality objectives within the basin plans. In California, the beneficial uses and water quality objectives are the State’s water quality standards.

The Project is subject to the Water Quality Control Plan (Basin Plan) for the Sacramento and San Joaquin River Basins.

The existing beneficial uses of Cache Creek identified for ‘Clear Lake to Yolo Bypass’ are municipal and domestic supply, irrigation, stock watering, industry process, industry service supply, contact recreation (canoeing and rafting), other non-contact recreation, warm freshwater habitat, spawning warm, spawning cold, and wildlife habitat (California Regional Water Quality Control Board 2018). The beneficial uses of underlying groundwater are municipal and domestic water supply, agricultural supply, industry service supply, and industry process supply (California Regional Water Quality Control Board 2018).

The Project occurs on FEMA/FIRM panel 06113C0050G for unincorporated Yolo County. The effective date of panel 06113C0050G is 18 June 2010. FEMA/FIRM panel 06009C0450E designates the Project area as Zone A (special flood hazard areas subject to inundation by the 1% annual chance flood (100-year flood)).

A ‘Regulatory Floodway’ means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. Cache Creek in the Project area is not a designated Regulatory Floodway. Cache Creek is a designated Regulatory Floodway downstream of the Capay Diversion Dam which is located approximately 18 air miles southeast of the Project area.

In 2005 the California state legislature designated Cache Creek as a State Wild and Scenic River, which protects the river from future development that might inhibit the free flow of the river. “Free-flowing” means existing or flowing without artificial impoundment, diversion, or other modification of the river. The Project will not result in a permanent impoundment, diversion or other modification to the river.

Construction would require the temporary partial diversion of Cache Creek within the project limits. The Project proposes to replace the existing structurally deficient CR 40 bridge (22C-0091) over Cache Creek with a bridge to increase public safety. The Project will improve recreational rafters’ safety and enjoyment by providing a minimum freeboard clearance during the summer irrigation flows.

Potential Environmental Effects

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

As discussed in Section 4.2.7.b above compliance with the various requirements of the SWRCB statewide general permit for construction will ensure that water quality impacts during the construction phase of the proposed project would be less than significant. APM BIO-1 includes implementation of the 2008 County of Yolo Improvement Standards, Section 11, Stormwater Quality, Erosion and Sediment Control and the current edition of the Caltrans Stormwater Quality

Handbooks (<http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm>) to further minimize these less than significant water quality impacts.

- b) ***Less Than Significant Impact.*** The Project would not involve any new withdrawals from an aquifer or groundwater table and would not interfere with groundwater recharge. Project impacts are less than significant.
- c) ***Less Than Significant Impact for items c-i through c-iv.*** Project grading and excavation are not anticipated to result in any changes in site drainage volume or configuration. The Project will not contribute to a substantial increase in water runoff from the site. The proposed Project does not include other activities that will change the amount of stormwater runoff.

While the proposed bridge will increase the water surface elevation upstream up to 3.1 feet, and will increase the water extents, no negative impacts are anticipated for the structures in the area. At Cache Creek Regional Park, Lower Site bathroom the finished floor elevation is 586.80 feet and the proposed water surface elevation is 582.5 feet, thus no adverse impacts are expected. The bathroom will continue to be out of the waterway and will not be affected by the proposed bridge. Finally, the upper parking lot edge of pavement is at elevation 590.71 ft. The lower region of the parking lot is flooded under existing conditions and the extent of this flooding will not increase with the proposed bridge (Avila 2019). Project impacts are less than significant.

- d) ***Less Than Significant Impact.*** FEMA/FIRM panel 06009C0450E designates the Project area as Zone A (special flood hazard areas subject to inundation by the 1% annual chance flood (100-year flood)). Due to the limited traffic use of the bridge, a bridge that satisfies the design hydraulic clearances is not proposed. The 50-year and 100-year events are expected to overtop the bridge by approximately 8 and 13-feet respectively. The County will request a design exception for hydraulic clearances. Due to bridge inundation during high design flows, the County is proposing to use the new California State Type ST-75 bridge rail with tubular bicycle railing. The Type ST-75 bridge rail will allow inundation flows to pass through the rail members. Water will drain off the bridge through scuppers in the bridge barrier railing curbs and off the easterly approach roadway. The heavy steel tube rails are expected to undergo little to no damage when subjected to drift impacts. The completed Project would not include components that risk release of pollutants due to inundation, and impacts would be considered less than significant.
- e) ***Less Than Significant Impact.*** As per the Final California 2014/ 2016 Integrated Report (303(d) List/305(b) Report) (SWRCB 2018b), Cache Creek from the Clear Lake Dam to Cache Creek Settling Basin near the Yolo Bypass is a 303(d)-listed Category 5 waterbody for boron, mercury, and toxicity (source unknown). A Category 5 waterbody is a water segment where standards are not met and a total maximum daily load (TMDL) is required, but not yet completed, for at least one of the pollutants being listed for the segment. TMDL's have not been established for boron or toxicity. A TMDL for mercury was established by the EPA on 6 February 2007 pursuant to Clean Water Act Section 303(d)(2). The beneficial uses of Cache Creek that are currently unmet due to elevated concentrations of mercury are safe fisheries for humans and wildlife. Sources of mercury entering the watershed include waste rock and tailings from historic mercury mines, erosion of naturally mercury-enriched soils, geothermal springs and atmospheric deposition.

Pinnacle Environmental, Inc. conducted a Limited Phase II soil sampling investigation to evaluate the concentrations of mercury present in the Project area soils. As discussed in Section 4.2.9 above

the soils in the Project area have mercury concentrations very close to the background soils concentrations discussed Kearney’s 1996 “Background Concentrations of Trace and Major Elements in California Soils”.

The proposed Project is the replacement of an existing bridge and does not include activities that would conflict with or obstruct implementation of the TMDL for mercury or negatively affect any of the designated beneficial uses for surface and groundwater presented in the Water Quality Control Plan (Basin Plan) for the Sacramento and San Joaquin River Basins. Impacts would be considered less than significant

Mitigation Measures: None required

5.2.11 Land Use and Planning

| Would the project: | <i>Potentially Significant Impact</i> | <i>Less Than Significant with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |
|--|---------------------------------------|---|-------------------------------------|-------------------------------------|
| a) Physically divide an established community? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Environmental Setting

The 2009 Yolo County General Plan and accompanying Capay Valley Area Plan 2010 (Yolo County 2010) are the relevant land use plans for the project area.

Potential Environmental Effects

- a) **No Impact.** The Project does not include activities that would result in physically dividing an established community.
- b) **No Impact.** The proposed Project is consistent with the County General Plan.

Mitigation Measures: None required

5.2.12 Mineral Resources

| Would the project: | <i>Potentially Significant Impact</i> | <i>Less Than Significant with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |
|--------------------|---------------------------------------|---|-------------------------------------|------------------|
| | | | | |

- a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?
- b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

Environmental Setting

Per the County General Plan, Yolo County contains important mineral resources. A variety of minerals were once mined in the County. The chief minerals presently mined are aggregate and natural gas (Yolo County 2009b). The Project is located outside the Cache Creek Area Plan (CCAP) project area, a rivershed management plan that includes approximately 14.5 miles of lower Cache Creek, between the Capay Dam and the town of Yolo. Components of the CCAP establish goals to assist in the overall management, and include the Off-Channel Mining Plan (OCMP).

Potential Environmental Effects

- a) ***No Impact.*** The Project area is not in an important mineral resource zone or site, as depicted in the County’s General Plan DEIR Figure IV.L-2 (Yolo County 2009b). The replacement of the existing bridge would not affect the availability of a known mineral resources.
- b) ***No Impact.*** See response to item a) above.

Mitigation Measures: None required

5.2.13 Noise

| Would the project: | <i>Potentially Significant Impact</i> | <i>Less Than Significant with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |
|--|---------------------------------------|---|-------------------------------------|-------------------------------------|
| a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Generation of excessive ground-borne vibration or ground-borne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) For a project located within -the vicinity of a private airstrip or-an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Environmental Setting

The 2009 Yolo County General Plan (GP), Chapter 8-Health and Safety Element, Section D (Noise) establishes policies and standards associated with noise producing sources.

Yolo County GP Action HS-A61 states:

“Adopt a comprehensive Noise Ordinance that includes the following components:

- Standards for acceptable exterior and interior noise levels, their applicability and any specific exceptions to those standards.
- Guidelines and technical requirements for noise measurements and acoustical studies to determine conformance with provisions of the ordinance.
- Standards for construction equipment and noise-emitting construction activities.
- Regulations for the noise generated by events, including truck loading and unloading, operation of construction equipment, and amplified music.”

To date a County noise ordinance addressing construction noise has not been adopted; however, the County relies on the State Office of Noise Control Guidelines when considering new outdoor noise sources.

Applicant Proposed Measures (APM)

APM NOI-1 Noise Controls

- Project plans and specifications will include provisions requiring the contractor to make every reasonable effort to minimize construction noise through abatement measures such as work-hour controls and maintenance of muffler systems.

Potential Environmental Effects

- a) ***(Construction Noise) Less Than Significant Impact.*** Construction activities could increase noise levels temporarily in the vicinity of the Project. The primary source of noise in construction is heavy machinery which is constantly moving in unpredictable patterns. Actual noise levels would depend on the type of construction equipment involved, distance to the source of the noise, time of day, and similar factors. These increases would be temporary.

Project Construction will generate noise from excavators, backhoes or similar equipment during removal of the existing bridge, installation of the replacement bridge, installation of RSP, road approach work, and retaining wall installation. The Project will likely use a portion of the parking lot at the Cache Creek Lower Park Site for staging equipment and materials. Table 6 below lists the types of equipment that may be used during Project construction and their approximate maximum noise level at 50 ft from the job site (FHWA 2006). Based on Table 1, the maximum noise generated by construction may be between 80 and 86 dBA at 50 ft from the bridge construction site. Sound intensity decreases in proportion with the square of the distance from the source. Generally, sound levels for a point source will decrease by 6 dBA for each doubling of distance (FHWA 2017). Based on the County definition, no sensitive receptors/ uses occur within approximately 0.2 mile of

the Project site. The parking lot and restrooms at the Cache Creek Lower Park Site are about 1,000 ft away from where active construction would occur and may receive a maximum noise level between approximately 56 – 62 dBA (80 – 86 dBA minus 6 dBA per doubling of distance). During construction rafters using Cache Creek and other park users may intermittently hear construction noise at various locations adjacent to the Project site. Project impacts are temporary in nature and are considered less than significant.

Table 6. Potential Equipment Used During Construction and Maximum Noise Level

| Equipment | Maximum Noise Level (dBA at 50 feet) ¹ |
|---------------------------------|---|
| Backhoe | 80 |
| Bulldozer | 85 |
| Compactor (ground) | 80 |
| Concrete Mixer Truck | 85 |
| Concrete Mixer Truck | 85 |
| Concrete Pump | 82 |
| Drill Rig Truck | 84 |
| Dump Truck | 84 |
| Excavator | 85 |
| Flat Bed Truck | 84 |
| Front End Loader | 80 |
| Generator (more than 25 KVA) | 82 |
| Jackhammer | 85 |
| Mounted Impact Hammer (hoe ram) | 86 |
| Paver | 85 |
| Pneumatic Tools | 85 |
| Scrapers | 85 |

¹ Source: FHWA Highway Construction Noise Handbook, Final Report, August 2006.

(Operational Related Noise) Less Than Significant Impact. The Project does not increase the capacity of CR40. The post project noise levels in the Project vicinity will be substantially unchanged from the pre-project condition. Impacts are less than significant.

- b) **Less Than Significant Impact.** Project construction includes activities, such as operation of large pieces of equipment (e.g., heavy trucks, drill rig), which may result in the periodic, temporary generation of ground-borne vibration. The Project does not introduce new sources of ground-borne vibration. Given the nature of any potential ground-borne vibration and given that any impacts would be temporary and periodic, potential impacts are less than significant.
- c) **No Impact.** The Project is not located within an airport land use plan area or within two miles of a public or public use airport or private air strip.

Mitigation Measures: None required

5.2.14 Population and Housing

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

Potential Environmental Effects

- a) **No Impact.** The Project is the replacement of an existing bridge. The Project does not increase the capacity of CR 40. The Project does not include activities that would result in substantial unplanned population growth either directly or indirectly.
- b) **No Impact.** The Project does not include any activities that would result in the displacement of housing or people.

Mitigation Measures: None required

5.2.15 Public Services

| Would the project: | <i>Potentially Significant Impact</i> | <i>Less Than Significant with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |
|---|---------------------------------------|---|-------------------------------------|-------------------------------------|
| a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: | | | | |
| Fire protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Police protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Schools? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Parks? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Other public facilities?

Environmental Setting

The Project is the replacement of an existing bridge. The Project does not increase the capacity of CR 40. The purpose of the proposed Project is to increase public safety by providing a bridge that will meet Caltrans and the AASHTO LRFD Bridge Design Specifications. Due to the closure of the CR 40 Bridge over Cache Creek, in 2015 CalFire was forced to make a 50-mile detour to reach the fire lines. The bridge replacement is needed to provide CalFire and other emergency responders access across the creek during wildfires or other emergency events. The structure will be constructed with a horizontal curve radius of 132-feet, to accommodate CalFire’s 72-foot long tractor and trailer vehicle used to transport their fire-fighting equipment across Cache Creek. The bridge is currently closed and will remain closed for the duration of construction. Project construction activities would be coordinated with local law enforcement and emergency services providers as applicable.

Potential Environmental Effects

- a) **No Impact.** The Project makes improvements to an existing public facility. The potential environmental impacts of those improvements are evaluated in this document. No other new or physically altered governmental facilities would be needed.

Mitigation Measures: None required

5.2.16 Recreation

| | <i>Potentially Significant Impact</i> | <i>Less Than Significant with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |
|--|---|---|---|--------------------------|
| a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Environmental Setting

The Project is located within the Yolo County owned and operated Cache Creek Canyon Regional Park. The Park is divided into three use areas, the Cache Creek Upper Park Site, the Cache Creek Middle Campground Park Site, and the Cache Creek Lower Park Site. Adjacent land uses include Cache Creek Canyon Regional Park and State Route 16.

Potential Environmental Effects

- a) **Less Than Significant Impact.** The existing structurally deficient CR 40 bridge over Cache Creek was closed to vehicular traffic in 2008. The County ceased maintenance on CR40 in approximately 2009. Because maintenance has been ceased, the County is not planning to open the road to the general motoring public. Recreational uses including pedestrian, ATV, and horseback access have been and will continue to be allowed.
 Installation of the replacement bridge will provide improved recreational rafter’s safety by providing a minimum freeboard clearance during the summer irrigation flows. The Project also provides improved safe access for recreational uses including pedestrian, ATV, and horseback riding. The improved access could lead to an increase in recreational users of the Park. However this increase is not anticipated to result in accelerated substantial physical deterioration of Cache Creek Canyon Regional Park or the park facilities. Project impacts are less than significant.
- b) **Less Than Significant with Mitigation Incorporated.** The portion of Cache Creek in the Project area is a popular recreational rafting area. During construction the segment of Cache Creek immediately upstream and downstream of the existing bridge will need to be closed to rafters for safety. Due to a lack of practicable alternate access routes to the project area, a temporary access bridge crossing Cache Creek will likely be constructed to enable access. The temporary access bridge would be used for construction access and emergency access only. The temporary bridge would be closed to recreational uses. Implementation of mitigation measure REC-1 will reduce potential impact to recreational rafters.

Mitigation Measures

MM REC-1 Recreational Raft Portage

- *Prior to start of and during construction, a floating barricade and portage signage for recreational rafters will direct them out of Cache Creek upstream of the construction zone and around the bridge construction site to a Creek entrance location downstream of the existing bridge.*

5.2.17 Transportation

| Would the project: | <i>Potentially Significant Impact</i> | <i>Less Than Significant with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |
|--|---------------------------------------|---|-------------------------------------|-------------------------------------|
| a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| c) 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"/> |
| d) Result in inadequate emergency access? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Result in inadequate parking capacity? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Environmental Setting

Constructed in 1930, the existing CR 40 bridge over Cache Creek consists of a 115-foot long, 22-foot wide, six-cell, reinforced concrete box culvert with three open cells. When it is not inundated, the bridge still provides pedestrian, equestrian, and ATV access to public lands, such as recreational trails and parks. The bridge may be inundated during the winter due to storm events and in spring and summer due to water releases from the Cache Creek Dam, upstream of the bridge near Clear Lake.

The structurally deficient bridge was closed to vehicular traffic in 2008. The County ceased maintenance on CR 40 in approximately 2009. Because maintenance has been ceased, the County is not planning to open the road to the general motoring public. Pedestrian, ATV, horseback access will continue to be allowed.

Potential Environmental Effects

- a) ***No Impact.*** The proposed Project does not include activities that would cause a permanent impact to the circulation system (roads), including transit, roadway, bicycle, and pedestrian facilities. Formal transit, bicycle, and pedestrian facilities do not occur in the Project area.

The replacement bridge will be constructed on an improved alignment at essentially the same location as the existing bridge. The bridge will provide a minimum clear width of 20-feet, the same as the existing structure. The structure will be constructed with a horizontal curve radius of 132-feet, to accommodate CalFire’s 72-foot long tractor and trailer vehicle used to transport their fire-fighting equipment across Cache Creek. Once constructed, the project would not result in an increase in traffic in the area and will not conflict with the Yolo County General Plan, or any ordinance, policy, or congestion management program. The project will have no impact on traffic circulation plans or policies.

- b) ***Less Than Significant Impact.*** A temporary minor increase in vehicle miles travels (VMT) could occur during Project construction as the result of construction worker and related trips to the site, materials delivery, and spoils hauling. Any minor increase in VMT would be temporary. The Project does not increase the capacity of CR 40. The completed Project would not increase VMT. Impacts would be considered less than significant.

- c) ***No Impact.*** The Project removes an existing structurally deficient bridge that was closed to vehicular traffic in 2008 and replaces it with a bridge meeting County standards, Caltrans, and the AASHTO LRFD Bridge Design Specifications. The Project does not include features that introduce or exacerbate any transportation or traffic hazards due to a design feature.

- d) **Less Than Significant Impact.** The structurally deficient bridge was closed to vehicular traffic in 2008. The bridge replacement is needed to provide CalFire and other emergency responders access across the creek during wildfires or other emergency events. The proposed Project will improve emergency access to CR 40 south of the existing bridge. The Project construction activities would be coordinated with local law enforcement and emergency services providers as applicable. Impacts would be considered less than significant.
- e) **No Impact.** The Project would not result in an increase in demand for parking in the vicinity of the Project.

Mitigation Measures: None required

5.2.18 Tribal Cultural Resources

| | <i>Potentially Significant Impact</i> | <i>Less Than Significant with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |
|--|---|---|---|--------------------------|
| a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 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 checked="" type="checkbox"/> | <input type="checkbox"/> | <input 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. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Environmental Setting

The cultural resources study identified one archeological resource within a portion of the Project area. See Section 4.2.5 (Cultural Resources) above for a summary of Project related consultation and coordination with Native American tribes.

Potential Environmental Effects

- a) **Less Than Significant with Mitigation Incorporated (applies to items i and ii).** As the result of close and continued ongoing coordination with the Yocha Dehe Wintun Nation during Project development the design was altered to largely avoid the tribal cultural area of concern. The County

also agreed to provide additional protections for the resources including cultural sensitivity training, installation of a boulder barrier along the northern edge of CR 40 south of Cache Creek, and placement of a permanent layer of imported fill material on the existing CR 40 road surface within the project limits south of Cache Creek. In a letter sent to Caltrans dated 5 September 2019, the Yocha Dehe tribe described the AB 52 consultation and coordination between Yocha Dehe and the County (Appendix A). The letter states that with the design revisions and other protective measures made during the AB-52 consultation with the County, additional archeological testing of the site is not needed. Implementation of MM CULT-1 will reduce potential impacts to less than significant.

Mitigation Measures:

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

5.2.19 Utilities/ Service Systems

| Would the project: | <i>Potentially Significant Impact</i> | <i>Less Than Significant with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |
|---|---|---|---|-------------------------------------|
| a) Require or result in the relocation or construction of new water or expanded waste water treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Result in a determination by the waste water treatment provider which serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Environmental Setting

There are no utilities in the Project area. The completed project will not require utility services.

Potential Environmental Effects

- a) **No Impact.** The Project is the replacement of an existing bridge and does not include activities that would result in the relocation or construction of new water or expanded waste water treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities.
- b) **Less Than Significant Impact.** Operation and maintenance of the replacement bridge following construction would not be expected to use additional water supplies. Future routine maintenance may include pressure washing and other minor water uses. Impacts would be considered less than significant.
- c) **No Impact.** The Project would not produce waste water.
- d) **No Impact.** Solid waste generated by the Project would be limited to construction debris. Some of the demolished bridge components may be recycled. Solid waste disposal would occur in accordance with federal, state, and local regulations. Disposal would occur at permitted landfills, likely the Yolo County Central Landfill located approximately 40 miles southeast of the Project. The landfill has a permitted capacity of 48,035,200 cubic yards and a remaining capacity, as determined in May 2017, of 35,171,142 cubic yards (CalRecycle 2020). The project would not generate solid waste in amounts that would substantially affect the existing capacity of the Yolo County Central Landfill.
- e) **No Impact.** The Project would conform to all applicable state and federal solid waste regulations.

Mitigation Measures: None required

5.2.20 Wildfire

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

Environmental Setting

In accordance with California Public Resource Code Section 4201-4204 and Government Code Section 51175-51189, the CalFire has mapped areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These zones, referred to as Fire Hazard Severity Zones (FHSZ), represent the risks associated with wildland fires.

In California, responsibility for wildfire prevention and suppression is shared by federal, state, and local agencies. Federal agencies are responsible for federal lands in Federal Responsibility Areas (FRA). The State of California has determined that non-federal lands in unincorporated areas with watershed value are of Statewide interest and have classified those lands as State Responsibility Areas (SRA), which are managed by CalFire. All incorporated areas and other unincorporated lands are classified as Local Responsibility Areas (LRA). Most of the western third of Yolo County has been classified as SRA, with FRA near the northwest and west County boundaries (Figure IV.M-2).

The Project is located in a ‘moderate’ to ‘very high’ Fire Hazard Severity Zone per the 2007 CalFire Fire Hazard Severity Zones State Responsibility Area (SRA) map (CalFire 2020). The Project is located in the Cache Creek Canyon Regional Park in Cache Creek Canyon in the northwest portion of Yolo County. No residential land use occurs within one mile of the Project site. The Cache Creek Canyon Regional Park, Middle Site campground is located a 0.67 mile north of the Project site.

Under State regulations, areas within very high fire hazard risk zones must comply with specific building and vegetation management requirements intended to reduce property damage and loss of life within these areas.

Potential Environmental Effects

- a) ***Less than Significant.*** The Project is being implemented to replace an existing bridge. The replacement bridge would provide a safer road and bridge across Cache Creek, but use will remain limited. The structure will be constructed with a horizontal curve radius of 132-feet, to accommodate CalFire’s 72-foot long tractor and trailer vehicle used to transport their fire-fighting equipment across Cache Creek. The completed Project would improve public safety by providing safe crossing of Cache Creek for fire and other emergency responders. Impacts are considered less than significant.
- b) ***Less Than Significant with Mitigation Incorporated.*** The Project area occurs on relatively flat ground in and adjacent to Cache Creek. Human activities are the primary reason wildfires start. Project construction would involve the use of heavy equipment, welding, and other activities that have potential to ignite fires. A wildland fire caused by Project construction activities could result in a significant impact. Implementation of Mitigation Measure WILD-1 would reduce this potential impact to less-than-significant.
- c) ***Less than Significant.*** The Project replaces the existing bridge with a new one. The Project does not include any other infrastructure. Maintenance of the new structure would not involve any activities that do not currently occur at the existing structure. The completed Project would not exacerbate fire risk. The Project will improve public safety/ fire prevention by accommodating

CalFire’s 72-foot long tractor and trailer vehicle used to transport their fire-fighting equipment across Cache Creek. Project impacts are less than significant.

- d) **Less than Significant.** The Project does not include activities that would expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. See also response a, b, and c above.

Mitigation Measures

MM WILD-1 Fire Protection Measures

- *Comply with applicable state and/or local requirements to ensure accessibility and ground clearance of emergency vehicles (i.e. fire engines).*
- *Internal combustion engines, stationary and mobile, will be equipped with spark arresters. Spark arresters shall be in good working order.*
- *Contractor will keep all construction sites and staging areas free of grass, brush, and other flammable materials.*
- *Personnel will be trained in the practices of the fire safety relevant to their duties.*
- *Work crews will be required to park vehicles away from flammable vegetation, such as dry grass and brush. At the end of each workday, heavy equipment will be parked over mineral soil, asphalt, or concrete, where available.*
- *Work crews will have fire-extinguishing equipment on hand, as well as emergency numbers and cell phone or other means of contacting the Fire Department. Construction and maintenance personnel shall be trained and equipped to extinguish small fires.*
- *Smoking will be prohibited while operating equipment and shall be limited to designated areas. Smoking will be prohibited within 30 feet of any combustible material storage area (including fuels, gases, and solvents). Smoking will be prohibited in any location during a Red Flag Warning issued by the National Weather Service for the project area (“Red-Flag Warning” is a term used by fire-weather forecasters to call attention to limited weather conditions of particular importance that may result in extreme burning conditions.)*

5.2.21 Mandatory Findings of Significance

| To be filled out by Lead Agency if required | <i>Potentially Significant Impact</i> | <i>Less Than Significant with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i> |
|---|---------------------------------------|---|-------------------------------------|--------------------------|
| a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

examples of the major periods of California history or prehistory?

- b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?
- c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

- a) **Less Than Significant with Mitigation Incorporated.** Through the use of Best Management Practices, APM's, Yolo HCP/ NCCP AMM's, and the mitigation measures noted previously, the Project will not degrade the quality of the environment.
- b) **Less than Significant.** The Project is consistent with the General Plan and would not result in individually limited but collectively significant impacts. Therefore, the project would not cause any additional environmental effects or significantly contribute to a cumulative impact.
- c) **Less than Significant.** The Project would not result in substantial direct or indirect adverse effects from noise, either during project construction or operation, nor would it result in impacts to air quality, water quality or utilities and public services. Therefore, the Project would not cause substantial adverse effects on human beings.

6. Summary of Applicant Proposed Measures

The following measures were identified by the Applicant to further reduce potential Project impacts.

AIR QUALITY

APM AQ-1 General Air Quality Measures

The County or its contractor will implement the following measures to reduce tailpipe emissions from diesel-powered construction equipment.

- Maximize use of diesel construction equipment meeting CARB's 1996 or newer certification standard for off-road heavy-duty diesel engines
- Use emission control devices at least as effective as the original factory-installed equipment.
- Substitute gasoline-powered for diesel-powered equipment when feasible.
- The primary contractor shall be responsible to ensure that all construction equipment is properly tuned and maintained prior to and for the duration of onsite operation.
- All equipment will use Tier 2 engines if available.

APM AQ-2 Dust Control

The County or its contractor will implement the following fugitive dust control measures.

- Watering all active construction sites at least twice daily in dry conditions, with the frequency of watering based on the type of operation, soil, and wind exposure
- All disturbed areas, including storage piles, which are not being actively used for construction purposes, will be effectively stabilized using water or other approved substances.
- Prohibit all grading activities during periods of high wind (over 20 miles per hour)
- On-site vehicles limited to a speed that minimizes dust emissions on unpaved roads (15 mph)
- Cover all trucks hauling dirt, sand, or loose materials
- Cover inactive storage piles
- Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. The Applicant, or its contractor, will respond to complaints and take corrective action within 48 hours
- Limit the area under construction at any one time

BIOLOGICAL RESOURCE

APM BIO-1 General Avoidance Biological Resources (*Incorporates/Implements Yolo HCP/NCCP AMM 1{Establish Buffers}, AMM 3 {Confine and Delineate Work Area}, AMM 6 {Conduct Worker Training}, AMM7 {Control Nighttime Lighting of Project Construction Sites}, AMM8 {Avoid and Minimize Effects of Construction Staging Areas and Temporary Work Areas}*):

- All vegetation to be removed should be done so using hand tools, including chain saws and mowers, and should be trimmed several inches above the ground with the roots left intact to prevent erosion.

- During construction, water quality will be protected by implementation of BMPs consistent with the 2008 County of Yolo Improvement Standards, Section 11, Stormwater Quality, Erosion and Sediment Control and the current edition of the Caltrans Stormwater Quality Handbooks (<http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm>) to minimize the potential for siltation and downstream sedimentation of Cache Creek.
- Equipment will be refueled and serviced at designated construction staging areas. All construction material will be stored and contained in a designated area that is located away from channels to prevent transport of materials into the adjacent Cache Creek. The preferred distance is a minimum 100 feet from riparian habitat or water bodies. Construction vehicles and equipment will be maintained to prevent contamination of soil and water from external grease and oil and from leaking hydraulic fluid, fuel, oil, and grease.
- Following completion of construction, all construction material and equipment will be removed from Cache Creek and the bed and banks of Cache Creek will be restored to approximate pre-project configurations.
- Areas temporarily disturbed on the banks of Cache Creek will be revegetated and reseeded with native grasses and other native herbaceous annual and perennial species prior to October 15 and/or immediately after construction at the completion of the Project (Appendix G of the approved NES). The project engineer may determine that reseeded areas should be covered with a biodegradable erosion control fabric to prevent erosion and downstream sedimentation. The project engineer will determine the specifications needed for erosion control fabric (e.g., shear strength) based on anticipated maximum flow velocities and soil types. The seed type will consist of commercially available native grass and herbaceous species as described in (Appendix G of the approved NES). No seed of nonnative species will be used unless certified to be sterile.
- Equipment within the creek channel will need to be supported on temporary platform or gravel bars. No equipment will be allowed to drive into an unprotected creekbed.
- All mud and debris will be washed off construction equipment prior to entering and leaving the site.
- Invasive plant material removed during vegetation clearing will be bagged, sealed, transported, and disposed of at a County-approved landfill or incinerator in a manner that prevents invasive plant material (seeds, plant fragments, etc.) from escaping.
- As applicable, workers will direct all lights for nighttime lighting of project construction sites into the project construction area and minimize the lighting of natural habitat areas adjacent to the project construction area.

CULTURAL RESOURCES

AMP CULT-1 Unanticipated Discoveries

- Contract provisions will require notification of the County and compliance with California Health and Safety Code Section 7050.5 and California Public Resources Code Sections 5097.5, 5097.9 et

seq., regarding the discovery and disturbance of cultural materials or human remains should any be discovered during project construction.

HAZARDS AND HAZARDOUS MATERIALS

APM HAZ-1 Cal/OSHA Worker Health and Safety

- Contract provisions will require a licensed asbestos contractor, certified by the State of California, and registered with Cal/OSHA to perform any asbestos related removal work.
- For compliance with Title 8, Section 341.9, the asbestos contractor must send written notice at least one day (24 hours) prior to start of any work which will impact any amount of asbestos to the local office for the State of California, Department of Occupational Safety and Health, and perform all work in accordance with Cal/OSHA requirements.

NOISE

APM NOI-1 Noise Controls

- Project plans and specifications will include provisions requiring the contractor to make every reasonable effort to minimize construction noise through abatement measures such as work-hour controls and maintenance of muffler systems.

7. Summary of Mitigation Measures

The following mitigation measures were identified to reduce impacts to less than significant:

BIOLOGICAL RESOURCES

MM BIO-1 Foothill Yellow-Legged Frog (FYLF) (Incorporates/Implements Yolo HCP/NCCP AMM 6 {Conduct Worker Training})

- Within 48 hours prior to the start of work within or along Cache Creek, a qualified biologist will conduct a preconstruction survey for all life stages (i.e. eggs, tadpoles, froglet, adult) of FYLF, and other special-status amphibians and reptiles. The survey area will include the construction area and the creek for 500 feet upstream and downstream of the existing bridge. If the qualified biologist discovers any life stage of special-status amphibians or reptiles, a biological monitor experienced with the identification and biology of the species will monitor construction activities within the disturbance area to verify that no special-status amphibians or reptiles are harmed.
- All construction personnel will participate in a worker environmental training program approved/authorized by the Conservancy and administered by a qualified biologist. The training will provide education regarding sensitive natural communities and covered species and their habitats, the need to avoid adverse effects, state and federal protection, and the legal implications of violating the FESA and NCCPA Permits. Prior to the start of construction, a qualified biologist will conduct a training session for all construction personnel that includes a description of special-status species with potential to occur in the construction area and their habitat. The training will explain who to contact and how to proceed if FYLF or other special-status species are encountered. The training will describe the specific measures to be implemented to avoid impacts to these species.

MM BIO-2 Western Pond Turtle (WPT) (Incorporates/Implements Yolo HCP/NCCP AMM 4 {Cover Trenches and Holes during Construction and Maintenance} and AMM 14 {Minimize Take and Adverse Effects on Habitat of Western Pond Turtle})

- A qualified biologist shall conduct a preconstruction survey for WPT within 48 hours prior to the onset of vegetation removal or ground disturbance in the Project area.
- The qualified biologist will be present during installation and removal of the diversion structure and dewatering activities as applicable. If any WPT are found during diversion/dewatering activities, construction activities will stop to allow the biologist sufficient time to relocate the WPT. WPT will be relocated to the closest suitable habitat where they will not be affected by construction. Construction will resume when the biologist has either relocated the WPT out of the construction zone to nearby suitable habitat, or, after thorough inspection, determined that the WPT has moved away from the construction zone.
- The qualified biologist will monitor all initial ground disturbing activity for nests that may be unearthed during the disturbance, and will move out of harm's way any turtles or hatchlings

found.

- To prevent injury and mortality of wildlife, workers will cover open trenches and holes associated with implementation of covered activities that affect habitat for these species or design the trenches and holes with escape ramps that can be used during non-working hours. The construction contractor will inspect open trenches and holes prior to filling and contact a qualified biologist to remove or release any trapped wildlife found in the trenches or holes.

MM BIO-3 Nesting Birds Listed Under the Federal MBTA, State MBPA, or Regulated by CA Fish and Game Code

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

- If construction begins outside the 1 February to 31 August breeding season, there will be no need to conduct a preconstruction survey for active nests.
- Vegetation (trees and shrubs) scheduled for removal should be removed during the non-breeding season from 1 September to 31 January.
- If construction or vegetation removal occurs between 1 February and 31 August, a biologist shall conduct a survey for active bird of prey nests within 250 ft and active MTBA bird nests within 100 ft of the Project area from accessible areas within one week prior to construction. The measures listed below shall be implemented based on the survey results.

No Active Nests Found:

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

Active Nests Found:

- If an active nest of a bird of prey, MBTA bird, or other CDFW protected bird is discovered that may be adversely affected by construction activities or an injured or killed bird is found, immediately:
 4. Stop all work within a 300-foot radius of the active nest
 5. Notify the Engineer
 6. Do not resume work within the specified radius of the discovery until authorized.
- The biologist shall establish a minimum 300-foot ESA if the nest is of a bird of prey, and a minimum 100-foot ESA around the nest if the nest is of an MBTA bird other than a bird of prey.

Bird Species Protection Areas

| Identification | Location |
|--|-------------------------------|
| Bird of prey | 300 ft, no-disturbance buffer |
| MBTA protected bird (not bird of prey) | 100 ft, no-disturbance buffer |

- Activity in the ESA will be restricted as follows:
 4. Do not enter the ESA unless authorized.
 5. If the ESA is breached, immediately:
 - c. Secure the area and stop all operations within 60 feet of the ESA boundary
 - d. Notify the Engineer
 6. If the ESA is damaged, the County determines what efforts are necessary to remedy the damage and who performs the remedy.
- No construction activity shall be allowed in the ESA until the biologist determines that the nest is no longer active, or unless monitoring determines that a smaller ESA will protect the active nest.
- The ESA may be reduced if the biologist monitors the construction activities and determines, in consultation with CDFW, that no disturbance to the active nest is occurring. Reduction of the ESA depends on the species of bird, the location of the nest relative to the Project, Project activities during the time the nest is active, and other Project-specific conditions.
- Between 1 February and 30 September, if additional vegetation removal is required after construction has started, a survey will be conducted for active nests in the area to be affected. If an active nest is found, the above measures will be implemented.
- If an active nest is identified in or adjacent to the construction zone after construction has started, the above measures will be implemented to ensure construction is not causing disturbance to the nest.

MM BIO-4 Western Red Bat

- If any cottonwood or willow trees will be removed by project activities, tree removal will be conducted in a two-phased approach that removes non-habitat features one day prior to habitat features. Habitat features will be determined by a qualified biologist. Non-habitat vegetation adjacent to habitat trees will be removed. Non-habitat structural features on habitat trees will also be removed. Trees will be left overnight, allowing bats potentially roosting in habitat features to vacate the tree. The remainder of the tree will be removed the following day.
- Personnel shall not attempt to directly disturb (e.g. shake, prod) roosting features, as such disturbance constitutes "harassment" under 14 CCR § 251.1.
- If maternity roosts are detected, tree removal will be conducted between 16 September and 14 April to avoid the maternity period of roosting bats.

MM BIO-5 Valley Foothill Riparian (Incorporates Yolo HCP/NCCP AMM 1 {Establish Buffers}, AMM 3 {Confine and Delineate Work Area}, AMM8 {Avoid and Minimize Effects of Construction Staging Areas and Temporary Work Areas}, AMM9 {Establish Buffers around Sensitive Natural Communities})

- Environmentally Sensitive Area (ESA) fencing will be used to delimit work areas in the vicinity of protected resources. The limits of construction will be marked with temporary fencing or flagging, at least 100 feet from the canopy drip-line of valley foothill riparian trees. Trucks and other vehicles will not be allowed to park beyond, nor shall equipment be stored beyond, the fencing. No vegetation removal or ground disturbing activities will be permitted beyond the fencing. Incorporation of this measure will help ensure that trees are not impacted beyond what is permitted by construction entitlements.
- If avoidance is infeasible, a lesser buffer or encroachment into the sensitive natural community may be allowed if approved by the Conservancy if it is determined that the sensitive natural community or covered species is avoided to an extent that is consistent with the project purpose.

MM BIO-6 Cache Creek (Incorporates Yolo HCP/NCCP AMM 10 {Avoid and Minimize Effects on Wetlands and Waters})

- The Project will acquire applicable permits from the Corps, the Regional Water Quality Control Board, and the California Department of Fish and Wildlife prior to conducting any work in the creek. The Project will abide by the terms of permits acquired, including any limited operating periods restricting the time of year when work in the creek may occur.
- If work in the flowing portion of the stream is unavoidable, the entire stream flow shall be diverted around or through the work area during the excavation and/or construction operations. Sufficient water shall at all times be allowed to pass downstream to maintain aquatic life below the project area. Any temporary dam or other artificial obstruction constructed shall only be built from clean materials such as k-rails, water pillows, silt fencing, gravel, sandbags, visqueen sheeting, steel sheet piles, or similar materials to create a cofferdam which will cause little or no siltation. Stream diversions shall be removed prior to the winter period.
- Any temporary diversion structure will be designed so that fish passage is maintained through the Project site. The diversion will not create an impassible barrier to fish passage. The contractor will prepare a creek dewatering plan that complies with any applicable permit conditions. Water diversion in Cache Creek will be conducted in accordance with the Yolo County Stormwater Management Plan (Yolo Co, 2004).
- If creek diversion is required, a qualified biologist will conduct a survey of the area to be diverted prior to diversion installation. The qualified biologist will be present during installation and removal of the diversion structure and dewatering activities.
- If pumps are used to temporarily divert or dewater the impoundment on Cache Creek to facilitate construction, an acceptable fish screen must be used to prevent entrainment or impingement of small fish. All temporary diversion structures and materials will be removed from the creek prior to the completion of the Project.
- The project will develop a dewatering plan in accordance with Section 13 Water Pollution Control of the Caltrans Standard Specifications.

CULTURAL RESOURCES

MM CULT-1 Cultural Resource Protections

- Project will implement the approved Environmentally Sensitive Area (ESA) Action Plan. No project work or staging will be allowed within the ESA. The ESA will be clearly delineated on construction plans and specifications.
- A line of boulders will be set along the northern side of the CR 40 road fill, south of the bridge within the Project limits, to limit vehicular traffic into the area of Yocha Dehe concern.
- South of the Cache Creek bridge within the Project limits the existing grade will be elevated with imported fill material and confined to the existing footprint of the road.
- Prior to the initiation of construction, all construction personnel will be trained by a qualified archaeologist meeting federal criteria under 36 CFR 61 regarding the recognition of possible buried cultural resources (i.e., prehistoric and/or historical artifacts, objects, or features) and protection of all archaeological resources during construction. Training will inform all construction personnel of the procedures to be followed upon the discovery of cultural materials. All personnel will be instructed that unauthorized removal or collection of artifacts is a violation of State law. Any excavation contract (or contracts for other activities that may have subsurface soil impacts) will include clauses that require construction personnel to attend the Workers' Environmental Training Program, so they are aware of the potential for inadvertently exposing buried archaeological deposits.
- Construction within the Project limits will involve ground disturbance. Ground disturbing activities will be monitored by a tribal cultural monitor and a qualified archaeologist meeting federal criteria under 36 CFR 61. Any buried cultural material encountered during ground-disturbing activities should be identified and evaluated on-site by the qualified archaeologist. If previously unidentified cultural resources are identified during ground disturbance activities, work within 25 feet of the find will be halted and directed away from the discovery until the archaeologist assesses the potential significance of the resource in terms of eligibility for listing on the CRHR. If assessed as potentially eligible, the archaeologist, in consultation with the CEQA lead agency, State Historic Preservation Officer, and the Yocha Dehe Wintun Nation, will make the necessary plans for treatment of the find(s).

GEOLOGY AND SOILS

MM GEO-1 Unanticipated Paleontological Discoveries

- Implement Caltrans Standard Specification 14-7.03, which requires that if unanticipated paleontological resources are discovered, work shall halt within 60 feet of the discovery and the engineer shall be notified.
- If paleontological resources (i.e., fossils) are discovered during project construction, all work within 60 feet of the discovery site will stop until a qualified paleontologist can assess the importance of the find and recommend appropriate treatment. Yolo County will be responsible

for ensuring that recommendations regarding treatment are implemented.

RECREATION

MM REC-1 Recreational Raft Portage

- Prior to start of and during construction, a floating barricade and portage signage for recreational rafters will direct them out of Cache Creek upstream of the construction zone and around the bridge construction site to a Creek entrance location downstream of the existing bridge.

WILDFIRE

MM WILD-1 Fire Protection Measures

- Comply with applicable state and/or local requirements to ensure accessibility and ground clearance of emergency vehicles (i.e. fire engines).
- Internal combustion engines, stationary and mobile, will be equipped with spark arresters. Spark arresters shall be in good working order.
- Contractor will keep all construction sites and staging areas free of grass, brush, and other flammable materials.
- Personnel will be trained in the practices of the fire safety relevant to their duties.
- Work crews will be required to park vehicles away from flammable vegetation, such as dry grass and brush. At the end of each workday, heavy equipment will be parked over mineral soil, asphalt, or concrete, where available.
- Work crews will have fire-extinguishing equipment on hand, as well as emergency numbers and cell phone or other means of contacting the Fire Department. Construction and maintenance personnel shall be trained and equipped to extinguish small fires.
- Smoking will be prohibited while operating equipment and shall be limited to designated areas. Smoking will be prohibited within 30 feet of any combustible material storage area (including fuels, gases, and solvents). Smoking will be prohibited in any location during a Red Flag Warning issued by the National Weather Service for the project area (“Red-Flag Warning” is a term used by fire-weather forecasters to call attention to limited weather conditions of particular importance that may result in extreme burning conditions.)

8. Supporting Information Sources

8.1 Report Preparation

Yolo County Department of Community Services, CEQA Lead Agency

| | |
|-------------------|---|
| Todd Riddiough | Project Engineer, Senior Civil Engineer |
| Stephanie Cormier | Principal Planner |

MGE Engineering, Inc.

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|----------------|---------------------------------|
| Robert Sennett | Senior Engineer, Project Manger |
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Sycamore Environmental Consultants, Inc.

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|------------------|-------------------------------------|
| Jeffery Little | Vice President, Principal-In-Charge |
| Leane Dunn, M.F. | Project Manager |

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- Avila & Associates Consulting Engineers, Inc. 12 July 2019. Draft Preliminary Design Hydraulic Study for County Road 40 over Cache Creek Bridge (22C-0091) Replacement Project. Prepared for Yolo County
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Appendix A

Letter from Yocha Dehe Wintun Nation to Caltrans dated 5 September 2019



YOCHA DEHE
CULTURAL RESOURCES

September 5, 2019

Caltrans- District 3
Attn: Amarjeet Benipal, Director
703 B Street
Marysville, CA 95901

RE: County Road 40 Bridge Replacement Project

Dear Mr. Benipal:

The Tribe would like to follow up on the proposed County Road 40 Bridge Replacement Project, Yolo County and the site visit, conducted July 1, 2019, with Yolo County Staff as part of the AB 52 process. We appreciate you taking the time to show the project area.

The County and the Tribe have agreed to revise the plans which the bridge replacement would utilize existing road with new pillars within the existing bridge footprint and creating a buffer between native soil gravel to ensure that no ground disturbance would happen in the future. The Tribe and Yolo County have implemented preventative measures in order to ensure avoidance of the existing site.

As an extra precautionary mitigation measures, cultural sensitivity training will be conducted and cultural monitors will be on site with archaeologists during all ground disturbance, trenching and the additional work to avoid the existing site. With Tribal support of the preventative measures that have been put forth along with Yolo County staff, additional archaeological testing of the site is no longer required.

If you have any questions, please contact the following individual.

Laverne Bill, Cultural Resources Manager
Yocha Dehe Wintun Nation
Office: (530) 723-3891
Email: lbill@yochadehe-nsn.gov

Please refer to identification number YD-04242019-02 in any correspondence concerning this project.

Thank you for providing us the opportunity to comment.

Sincerely,

Leland Kinter
Tribal Historic Preservation Officer

CC: Patrick Blacklock, County Administrator, Yolo County, 625 Court Street, Woodland, CA 95695