



County Road 41 (Bridge No. 22C-0003) over Cache Creek Bridge Replacement Project

Initial Study and Mitigated Negative Declaration — Public Draft

May 2020

Prepared for:

Yolo County Department of Community Services
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(530) 666-8775

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Project Information

- 1. Project Title:** County Road 41 (Bridge No. 22C-0003) over Cache Creek Bridge Replacement Project (project)
- 2. Lead Agency Name and Address** Yolo County Department of Community Services
292 W. Beamer St.
Woodland, CA 95695
- 3. Contact Person and Phone Number** Stephanie Cormier, Principal Planner (530) 666-8041
- 4. Project Location** Bridge No. 22C-0003 over Cache Creek is located on County Road 41 (CR 41), near the town of Rumsey just 340 feet northeast of State Route 16 in Yolo County, California. The bridge is on the *Rumsey, California* U.S. Geological Survey (USGS) 7.5-minute quadrangle in Section 18 of Township 12 North, Range 3 West (Figure 1). The approximate center of the existing bridge is latitude 38.89022°, longitude -122.23841°.
- 5. 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
- 6. General Plan Designation** Agriculture (AG)
Open Space (OS)
- 7. Zoning** Agricultural Intensive (AN)
Public Open Space (POS)

8. Description of Project

Bridge No. 22C-0003 crossing over Cache Creek on CR 41 is proposed to be replaced with a new bridge that would be an approximately 400-foot long, three span cast-in-place prestressed concrete box girder bridge with 28 feet of clear width between concrete barriers. The new bridge would be located west of the existing bridge along a new upstream alignment. The roadway would also be oriented along a new bearing relative to the original alignment so that the new road intersects State Route 16 at a perpendicular angle. This would improve the intersection geometrics relative to the existing condition, and also allow for the existing bridge to remain open during construction to accommodate traffic. The new roadway approach would be approximately 220 feet long on the southern end of the bridge and approximately 620 feet long on the northern end of the bridge. The paved approach roadway width would be 28 feet to match the bridge width, tapering to match the existing road north of the bridge. The roadway would consist of two 12-foot lanes and two 6-foot shoulders. Each 6-foot shoulder would consist of a 2-foot paved section and a 4-foot graded aggregate base section. Since the replacement bridge would be constructed on a new upstream alignment, up to approximately 2.5 acres of new permanent right of way would be required. Creek access would be restored to the existing condition once the project is complete.



Temporary construction easements would also be required during construction in order to provide access for construction equipment and contractor staging areas. The roadway vertical profile may be raised to clear the design hydraulic flow with adequate freeboard. The bridge would be a three-span structure on two concrete seat type abutments founded on drilled piles. Drilled piles may need to utilize wet construction methods. The pier supports would be founded on large diameter cast-in-drilled-hole or cast-in-steel-shell concrete piles also using wet construction methods. New concrete bridge barriers with tubular steel rails and upgraded approach guardrails would be installed for traffic safety. The new bridge abutment locations would be constructed further away from the creek to allow more flow to pass underneath the bridge and greatly reduce potential scour risks at the support.

The pier piles would be drilled between 100 and 120 feet below the existing ground surface. This would represent the maximum depth of ground disturbance during construction. Roadway construction would require imported borrow embankment material in order to raise the roadway approach. Excavation into the creek banks may also be required to remove the existing bridge approach fills and install new rock slope protection (RSP). Temporary falsework would be installed across the creek at the location of the new bridge to help support the structure as it is being constructed. Falsework foundations could consist of timber pads or driven steel piles. Pile driving for installation of the falsework is expected to take up to approximately one week. The falsework and piles would be removed once the bridge is complete. A combination of stream diversion and a temporary trestle may be required in order to install falsework and drill new bridge foundations.

Non-grouted RSP would be placed along the creek banks in order to protect the new roadway embankment. RSP would consist of 2-ton (or heavier) boulders with several smaller backing layers and RSP fabric. RSP would be installed from the 100-year water surface elevation down to approximately 10 feet below the creek bed and be installed approximately 50 feet or more up and down stream of the bridge. On the south side of the bridge, new RSP will conform to the existing RSP and rock groins that extend approximately 700 feet upstream.

To allow continued vehicle passage during construction, the original bridge would be kept open. The existing bridge would be demolished and removed after the new bridge is constructed and open to traffic. The project would require some relocation of public utilities. There is an existing overhead utility to the east side of the existing bridge. It may be possible that the overhead utility be kept in place without relocation. Telephone conduit mounted onto the south side of the bridge would be relocated to the new bridge. An existing Department of Water Resources (DWR) stream gauge, USGS sediment sampler, Yolo County Flood Control and Water Conservation District (YCFWCWD) camera, and related equipment may also need to be relocated or replaced and attached to the new bridge.

Some construction activities would need to occur within the active channel of the creek, such as construction of temporary falsework and placement of RSP. A combination of temporary stream diversion and a temporary trestle may be required in order to install falsework and drill new bridge foundations. The creek flows would be temporarily diverted into pipes or narrowed channels.

Construction staging would occur southwest of the existing bridge, near State Route 16 and CR 41. A 0.5-acre designated area for material or equipment storage would be established in a pullout on the west side of CR 41 south of the bridge.



The type of equipment and number of construction workers would vary based on the specific activity being conducted. Construction equipment is expected to include an excavator, loader, dump truck, grader, vibratory roller compactor, crane, forklift, pile drilling equipment, baker tanks, pumps, concrete trucks, and several work trucks. Approximately 8 to 10 construction workers may work on the project in any given day; however, up to a maximum of 25 workers may be required during special operations such as trestle installation, falsework construction and bridge demolition.

Construction activities would take up to 14 months to complete over two construction seasons. In-stream work would begin in late spring and end in fall, as necessary to satisfy seasonal restrictions for channel work (November 1 through April 15). Construction would include a winter suspension period between seasons.

9. Surrounding Land Uses and Setting

CR 41 runs northeast-southwest through the project area, and Cache Creek flows in the southeastward direction underneath the bridge. The unincorporated community of Rumsey is near the southern end of the project area. Surrounding land uses include an agricultural property developed with a home site adjacent to the southeastern portion of the project site; agriculture consisting of orchards, row crops, and pasturelands; and open space.

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

- Federal Highway Administration
- U.S. Army Corps of Engineers (Sacramento District)
- California Department of Fish & Wildlife (Region 2)
- California Regional Water Quality Control Board (Central Valley Region)
- California Department of Transportation (District 3)
- Central Valley Flood Protection Board
- Yolo County

11. 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.?

Yolo County, under the purview of Caltrans District 3, consulted with the Native American Heritage Commission (NAHC) and local Native American groups and individuals pursuant to Section 106 of the National Historic Preservation Act and Section 21080.3 of CEQA. This consultation included contacting the local Native American individuals identified by the NAHC via letters and follow-up phone calls. Additionally, NAHC conducted a review of its Sacred Lands database for culturally significant properties and responded that there are no records for the project area. One local Native American tribe responded to the consultation. The Yocha Dehe Wintun Nation responded via written correspondence on May 18, 2016 with concern for sites located downstream of the project site; however, there were no concerns expressed regarding known prehistoric or ethnographic-era resources within the immediate project vicinity.



As part of consultation requirements under Public Resources Code Section 21080.3, the County subsequently contacted representatives of the Yocha Dehe Wintun Nation (Yocha Dehe) and Cortina Rancheria Band of Wintun Indians of California via email on May 31, 2019. Cortina Rancheria Band of Wintun Indians did not respond to the email. Yocha Dehe sent a letter dated July 3, 2019 requesting additional consultation. The County met with the Yocha Dehe to discuss the project and the Tribe's requests on August 2, 2019, and again at the project site on September 3, 2019. Based on these consultation efforts, the County agreed to include the Tribe's Protocol for handling human remains and/or cultural artifacts in the IS/MND, agreed to invite the Tribe to conduct construction monitoring during the project, and, subject to local public outreach, agreed to consider incorporating decorative features into the bridge design that represents the Tribe. Formal consultation with the Yocha Dehe was closed via a letter sent by the County on May 5, 2020.



County Road 41 (Bridge No. 22C-0003) over Cache Creek Bridge Replacement Project Proposed Initial Study and Mitigated Negative Declaration— Public Draft

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Acronyms and Abbreviations

AB 52	Assembly bill 52
APE	Area of Potential Effect
ASR	Archaeological Survey Report
BA	Biological Assessment
BMP	Best Management Practice
CAC	Certified Asbestos Consultant
Caltrans	California Department of Transportation
Cal-IPC	California Invasive Plant Council
CAP	Climate action plan
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CDFW	California Department of Fish and Wildlife
Conservancy	Yolo Habitat Conservancy
Corps	U.S. Army Corps of Engineers
County	Yolo County
CR 41	County Road 41
dB	decibel
DPS	Distinct Population Segment
°F	Degrees Fahrenheit
FHWA	Federal Highway Administration
GHG	greenhouse gas
HCP/NCCP	Yolo Habitat Conservation Plan and Natural Community Conservation Plan
HPSR	Historic Property Survey Report
HUC	hydrologic unit code
IS	Initial Study
ISA	Initial Site Assessment
ITP	Incidental Take Permit



MMRP	Mitigation Monitoring and Reporting Program
MLD	Most Likely Descendant
MND	Mitigated Negative Declaration
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NES	Natural Environment Study
NMFS	National Marine Fisheries Service
NOx	Nitrogen oxides
PM ₁₀	particulate matter 10 microns or less
PM _{2.5}	Particulate matter 2.5 microns or less
project	County Road 41 (Bridge No. 22C-0003) over Cache Creek Bridge Replacement Project
ROG	Reactive organic compounds
RSP	Rock slope protection
RWQCB	Regional Water Quality Control Board
SHPO	State Historic Preservation Officer
SWPPP	Storm Water Pollution Prevention Plan
USFWS	U.S. Fish and Wildlife Service
VELB	Valley elderberry longhorn beetle
Yocha Dehe	Yocha Dehe Wintun Nation
YSAQMD	Yolo-Solano Air Quality Management District



1. INTRODUCTION

1.1 INTRODUCTION AND REGULATORY GUIDANCE

This document is an Initial Study (IS) that summarizes the technical studies prepared for the proposed County Road 41 (Bridge No. 22C-0003) over Cache Creek Bridge Replacement Project (project). It includes an evaluation of potential environmental impacts that could result from the project and provides justification for a proposed Mitigated Negative Declaration (MND) for the project. This document was prepared in accordance with the current California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq., and the State CEQA Guidelines. Mitigation measures have been proposed to avoid or minimize any significant impacts that were identified.

1.2 LEAD AGENCY

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

1.3 SUPPORTING TECHNICAL STUDIES

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

Todd Riddiough, P.E, Senior Civil Engineer, Project Manager
Yolo County Department of Community Services, Public Works Division
292 W. Beamer St. Woodland, CA 95695
Phone: (530) 666-8039

Technical studies conducted for this project include:

- Archeological Survey Report/Historic Property Survey Report/ /Finding of Adverse Effect/Memorandum of Agreement (Confidential, available to qualified readers only)
- Natural Environment Study Report
- Biological Assessment
- Initial Site Assessment
- Location Hydraulic Study
- Wetland Delineation Report
- Section 4(f) Evaluation
- Visual Impact Assessment



1.4 DOCUMENT ORGANIZATION

The IS consists of the following chapters:

Chapter 1.0 – Introduction describes the purpose and content of this document.

Chapter 2.0 – Project Description provides a comprehensive description of the project, tentative schedule, required permit approvals, and project alternatives.

Chapter 3.0 – Environmental Impacts and Mitigation Measures describes the environmental impacts of the project using the CEQA Environmental Checklist. Where appropriate, mitigation measures are provided that would reduce potentially significant impacts to a less than significant level.

Chapter 4.0 – Determination provides the environmental determination for the project.

Chapter 5.0 – Summary of Mitigation Commitments provides a comprehensive list of all mitigation measures proposed for the project.

Chapter 6.0 – Report Preparation identifies the individuals responsible for preparation of this document.

Chapter 7.0 –References provides a list of references used to prepare this document.



2. PROJECT DESCRIPTION

2.1 LOCATION

Existing Bridge No. 22C-0003 is located on County Road 41 (CR 41) over Cache Creek near the unincorporated community of Rumsey just 340 feet northeast of State Route 16 in Yolo County, California (Township 12 N, Range 3 W, Section 18) (Figure 1). Rumsey is located in the northwest portion of Yolo County. The project site extends from the CR 41 intersection with State Route 16 over Cache Creek to approximately 800 feet northeast along CR 41. An overall Area of Potential Effect (APE) of 9.2 acres was evaluated for the project. The actual area of direct impact that includes all areas of construction disturbance, right of way, and temporary construction easement is expected to be up to 6 acres. Since the project would involve modification of the intersection of CR 41 with State Route 16, advance warning signs for traffic may precede the project approximately 1,500 feet in both directions along the highway.

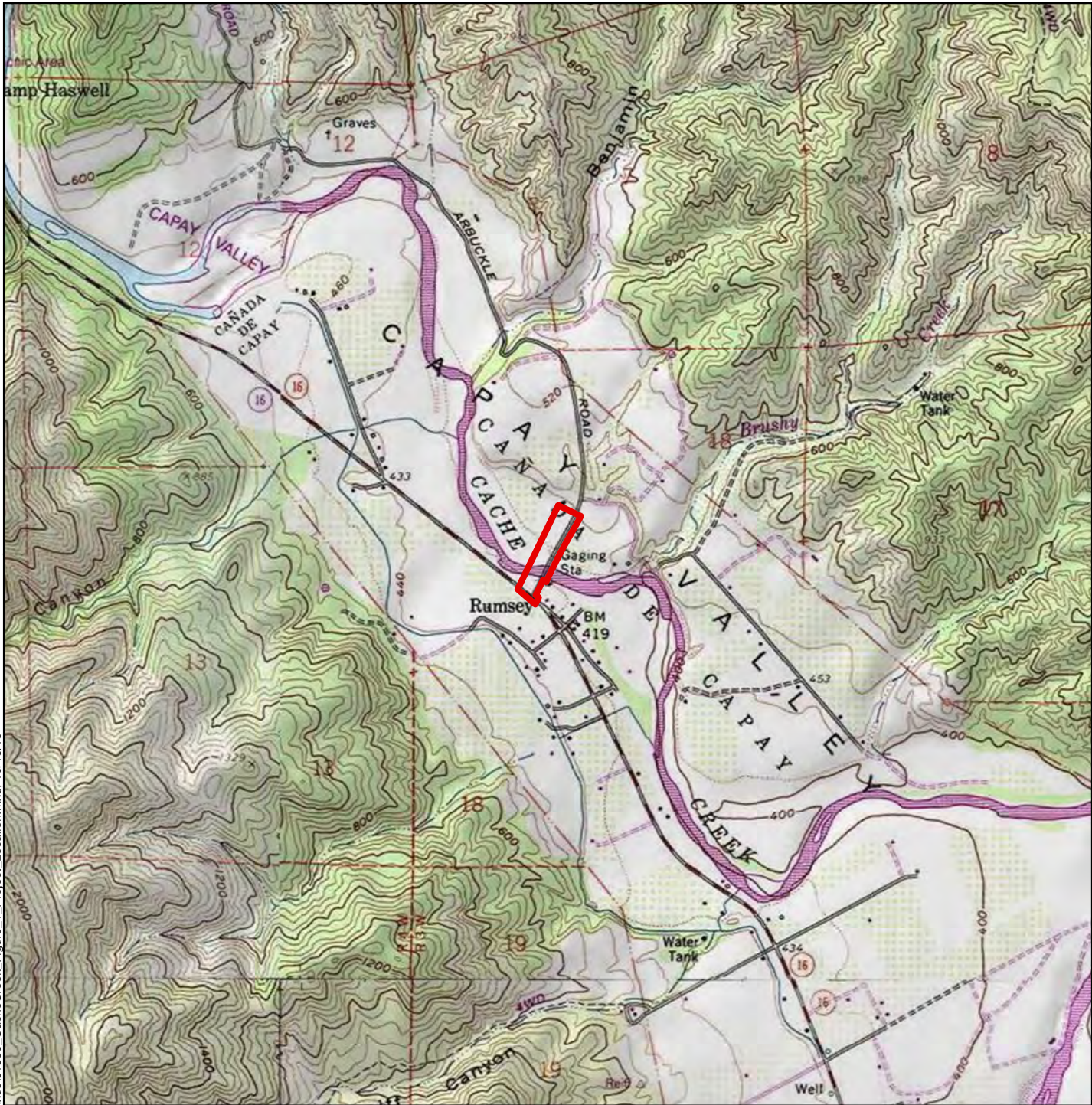
2.2 EXISTING FACILITY CONDITIONS

The original Rumsey Bridge (No. 22C-0003) was built in 1930 and was constructed as a two-span reinforced concrete through tied arch. The bridge is supported by reinforced concrete piers and abutments, both supported on pile foundations with an unknown depth. The original two-span structure consisted of the main concrete tied arch spans; each span is 108 feet long, for a total bridge length of 216 feet. Due to flood damage, the bridge was rehabilitated and extended in 1949 with two additional 47.5-foot long cast-in-place reinforced concrete T-beam spans on the north end of the bridge. These modifications resulted in the current bridge length of approximately 311 feet. The existing bridge is 24.5 feet wide with 20.5 feet clearance between the inside of the concrete rails. Caltrans maintenance reports indicate that the structure is rated category 2 under the historic inventory rating, which means that the bridge is eligible for the historic record on the National Register of Historic Places.

The bridge is located along a segment of CR 41. The roadway is crowned and intersects State Route 16 at a skew angle. The roadway is considered off the federal aid system due to a functional classification as a local road by the Caltrans California Road System maps.

Based on traffic counts completed by Yolo County in 2014, CR 41 has an average daily traffic of 60 vehicles per day. CR 41 is used by emergency vehicles, fire protection, and residents. CR 41 extends northeast from the bridge to Colusa County, where the road becomes Sand Creek Road, which continues over the Coast Range to the Central Valley near Arbuckle. County maintenance of CR 41 ends approximately 1.3 miles northeast of the bridge where the road becomes dirt surfaced. However, over the past few years, the creek has eroded away a portion of CR 41 in this unmaintained section. The bridge is currently the only access between the town of Rumsey and the east side of the creek (i.e., the 63-mile-long detour through the towns of Arbuckle and Williams is not available due to the creek erosion).

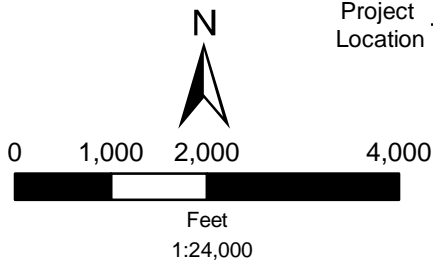




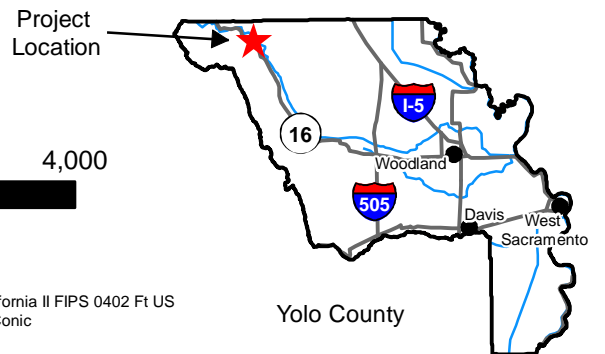
 Project Location

Public Land Survey:
Township 12 North,
Range 3 West,
Section 18 (MDBM)

USGS 7.5' Quad:
Rumsey (1978)



Coordinate System: NAD 1983 2011 StatePlane California II FIPS 0402 Ft US
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011



County Road 41 (Bridge No. 22C-0003) over
Cache Creek Bridge Replacement Project

Figure 1
Project Location

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2.3 PROJECT PURPOSE AND NEED

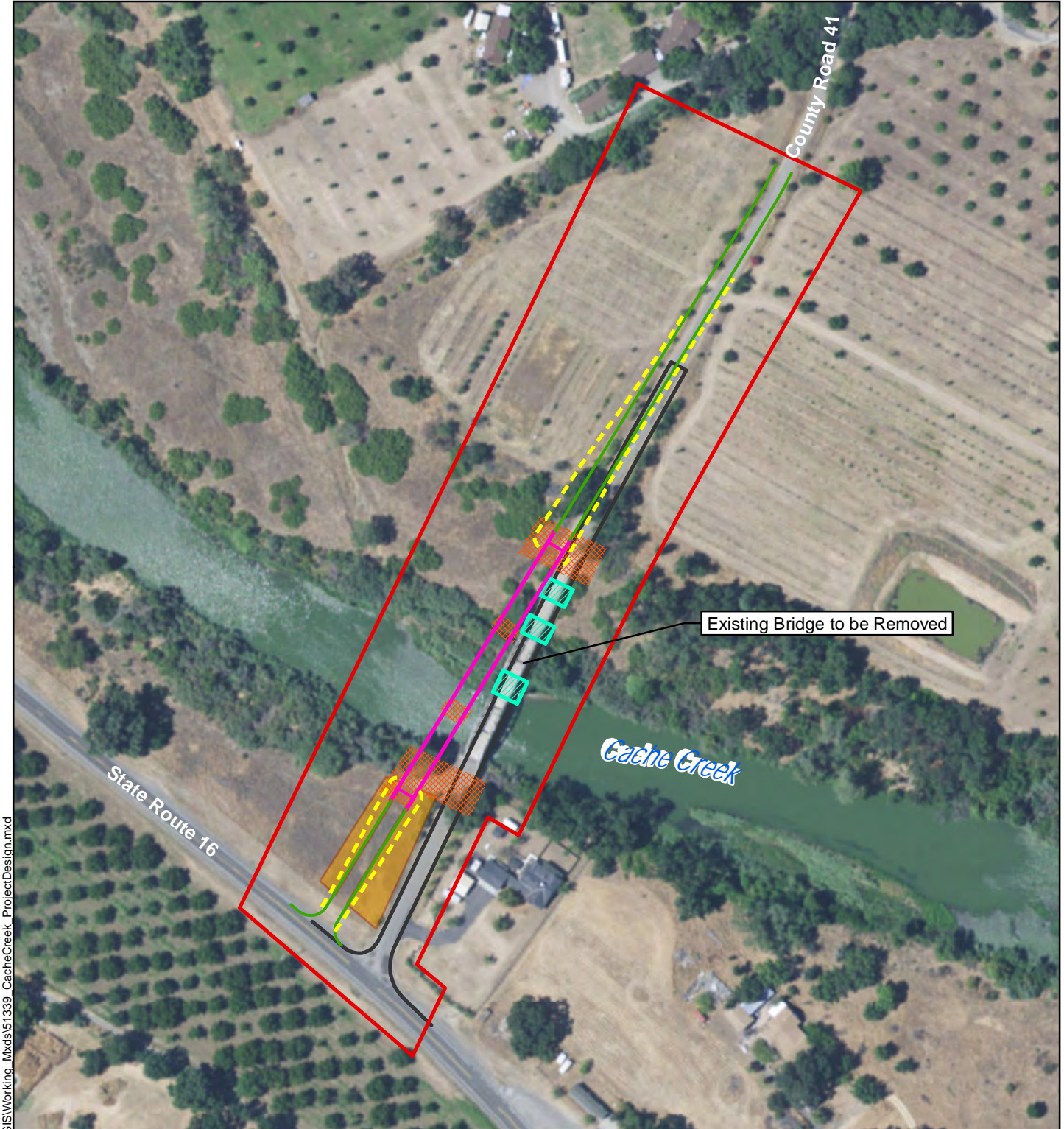
The purpose of the project is to improve public safety by replacing a deficient bridge near the end of its service life. The existing bridge has a 2015 Caltrans sufficiency rating of 58.3. A new bridge able to withstand seismic forces and scour from Creek flows is needed to maintain safe and reliable access across Cache Creek for all classes of vehicles. The new bridge would provide wider lanes and shoulders across the bridge to meet current County standards. The project would also improve public safety by installing standard concrete barriers and approach guard railings.

While the Rumsey Bridge was lengthened in 1949 in an effort to reduce scour impacts on the bridge, it has continued to experience scour related problems. Caltrans inspection reports currently classify the bridge as “scour critical” meaning that the bridge is susceptible to scour from the creek to an extent that it threatens the stability of the structure. The County prepared a *Scour Plan of Action* to address contingencies in the event the bridge foundation washes out. The southwest abutment was built at the outward bend of Cache Creek where the impinging flow has the potential to undermine the bank and abutment during large storm events. In 1995, a storm caused severe erosion behind this abutment and nearly took out the entire approach roadway; damage that can still be seen.

2.4 PROJECT DESCRIPTION

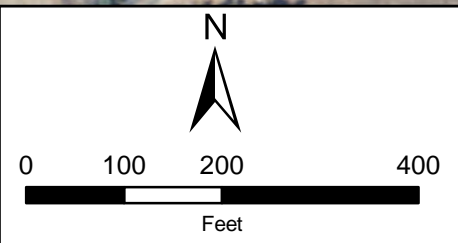
The new bridge would be an approximately 400-foot long, three span, cast-in-place, prestressed concrete box girder structure with 28 feet of clear width between concrete barriers. It would be located west of the existing bridge along a new upstream alignment (Figure 2). The roadway would also be oriented along a new bearing relative to the original alignment so that the new road intersects State Route 16 at a perpendicular angle. This would improve the intersection geometrics relative to the existing condition and also allow for the existing bridge to remain open during construction to accommodate traffic. The new roadway approach would be approximately 220 feet long on the southern end of the bridge and approximately 620 feet long on the northern end of the bridge. The new paved approach roadway width would be 28 feet to match the new bridge width, tapering to match the existing road north of the bridge. The roadway would consist of two 12-foot lanes and two 6-foot shoulders. Each 6-foot shoulder would consist of a 2-foot paved section and a 4-foot graded aggregate base section. Since the replacement bridge would be constructed on a new upstream alignment, new permanent right of way will be required. In addition, current public, pedestrian access to the creek on the northwestern portion of the bridge is proposed to be replicated similarly with the new bridge. Temporary construction easements would also be required during construction in order to provide access for construction equipment and contractor staging areas. The roadway vertical profile may be raised to clear the design hydraulic flow with adequate freeboard. The new three-span structure would be supported by two concrete seat type abutments founded on drilled piles. Drilled piles may need to utilize wet construction methods, which requires localized dewatering in the immediate vicinity of the pile. The pier supports would be founded on large diameter cast-in-drilled-hole or cast-in-steel-shell concrete piles also using wet construction methods. New concrete bridge barriers with tubular steel rails and upgraded approach guardrails would be installed for traffic safety. The new bridge abutment locations would be constructed outside of the creek channel to allow more flow to pass underneath the bridge and greatly reduce potential scour risks at the support.





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- Project Area (9.2 acres)
- New Bridge
- New Road
- Extent of New Road Cut/Fill
- Foundation/footing Excavation & RSP Placement
- Existing Bridge Foundation Proposed for Removal
- Proposed Staging Area
- Existing Bridge/Road



County Road 41 (Bridge No. 22C-0003) Over Cache Creek Bridge Replacement Project



Figure 2
Project Layout

The pier piles would be drilled between 100 and 120 feet below the existing ground surface. This would represent the maximum depth of ground disturbance during construction. Roadway construction would require imported borrow embankment material in order to raise the roadway approach. Excavation into the creek banks may also be required to remove the existing bridge approach fills and install new rock slope protection (RSP). Temporary falsework would be installed across the creek at the location of the new bridge to help support the structure as it is being constructed. Falsework could consist of timber pads or driven steel piles. Pile driving for installation of the falsework is expected to take up to approximately one week. The falsework and piles would be removed once the bridge is complete. A combination of stream diversion and a temporary trestle may be required in order to install falsework and drill new bridge foundations.

Non-grouted RSP would be placed along the creek banks in order to protect the new roadway embankment. RSP would consist of 2-ton (or heavier) boulders with several smaller backing layers and RSP Fabric. RSP would be installed from the 100-year water surface elevation down to approximately 10 feet below the creek bed and channel and would be installed approximately 50 feet or more up and down stream of the new bridge. On the south side of the bridge, new RSP would conform to the existing RSP and rock groins that extend approximately 700 feet upstream.

To allow continued vehicle passage during construction, the original bridge would be kept open. The existing bridge would be demolished and removed after the new bridge is constructed and open to traffic. The project would require some relocation of public utilities. There is an existing overhead utility to the east side of the existing bridge. It may be possible that the overhead utility be kept in place without relocation. Telephone conduit mounted onto the south side of the bridge would be relocated to the new bridge. An existing DWR stream gauge, USGS sediment sampler, YCFCWCD camera, and related equipment may also need to be relocated or replaced and attached to the new bridge.

Some construction activities would need to occur within the active channel of the creek, such as construction of temporary falsework piers, and placement of RSP. A combination of stream diversion and a temporary trestle may be required in order to install falsework and drill new bridge foundations. The creek flows would be diverted into pipes or narrowed channels to convey flow downstream from the worksite.

Construction activities would take up to 14 months to complete over two construction seasons. In-stream work would begin in late spring and end in early fall, as necessary to satisfy seasonal restrictions for channel work (November 1 through April 15). Construction would include a winter suspension period between seasons.

2.5 PROJECT DESIGN CRITERIA

Removal of Existing Structure

The existing bridge would remain open during construction of the new bridge. Once the new span is finished and open for travel, the old bridge would be removed, and the area would be contoured to match surrounding conditions. Bypassed roadways on CR 41 would be pulverized and removed. Removed roadway segments would be hydro-seeded with a native seed mixture.



Bridge removal will conform to the provisions of the Caltrans Standard Specifications (California Department of Transportation 2018). A bridge removal work plan will detail the removal sequence, temporary supports, types of protective covers, and protection of people and the environment from potential hazards such as lead-based paint and falling objects. In-water work would be required for bridge removal. All work occurring in the channel would occur as allowed per regulatory approvals; however, instream work would generally be timed to occur when flow would be at its lowest point (June – October). During demolition, plastic sheeting or other suitable material would be placed below the existing bridge to capture falling debris. Piling, piers, and abutments would be removed approximately 3 feet below finished grade. The old bridge, concrete, and rebar would be disposed of off-site at an appropriate disposal or re-use facility. The banks and channel would be contoured to blend in with the surrounding landform. Hydroseeding and tree planting would facilitate concealing the former structure's location.

Contractor Staging Areas

Construction staging would occur southwest of the existing bridge, near State Route 16 and CR 41. A 0.5-acre designated area for material or equipment storage would be established in a pullout on the west side of CR 41 south of the bridge.

Equipment

The type of equipment and number of construction workers would vary based on the specific activity being conducted. Construction equipment is expected to include an excavator, loader, dump truck, grader, vibratory roller compactor, crane, forklift, pile driving hammer, pile drilling equipment, baker tanks, pumps, concrete trucks, and several work trucks. Approximately 8 to 10 construction workers may work on the project in any given day; however, up to a maximum of 25 workers may be required during special operations such as trestle installation, falsework construction and bridge demolition.

2.6 CONSERVATION MEASURES

Conservation Measures are measures or practices adopted by a project proponent to reduce or avoid adverse impacts that could result from a proposed project. These measures are included as part of the proposed project and will be included as part of the project's Mitigation Monitoring and Reporting Program. The County has proposed the following conservation measures that will be incorporated into the project design to further minimize the potential for adverse impacts on the environment:

Conservation Measure #1 – Erosion and Sedimentation Control

Erosion control measures shall be implemented during construction of the project. These measures shall conform to the appropriate erosions/sedimentation control provisions contained in the Caltrans Standard Specifications (which are in force at the time the construction contract is awarded) and the special provisions included in the contract for the project. Such provisions shall include the preparation of a Storm Water Pollution Prevention Plan or Water Pollution Control Plan, which will describe and illustrate best management practices (BMPs).

Erosion control measures to be included in the Storm Water Pollution Prevention Plan or Water Pollution Control Plan include the following:



- To the extent practicable, activities that increase the erosion potential shall be restricted to the relatively dry summer and early fall period (i.e., June– September) to minimize the potential for rainfall to transport sediment to surface water features. If these activities must take place during the late fall, winter, or spring, temporary erosion and sediment control structures shall be in place and operational at the end of each construction day and shall be maintained until permanent erosion control structures are in place.
- Vegetation clearing and ground-disturbing activities shall be limited to the minimum area necessary for project implementation.
- Areas where woody vegetation needs to be removed shall be identified in advance of ground disturbance and shall be limited to only those areas that have been approved by the County. Within 10 days of completion of construction in those areas, weed-free mulch shall be applied to disturbed areas to reduce the potential for short-term erosion. Prior to a rain event or when there is a greater than 50 percent probability of rain within the next 24 hours as forecasted by the National Weather Service and rain is forecasted to exceed 0.5 inches, weed-free mulch shall be applied to all exposed areas at the completion of the day's activities. Soils shall not be left exposed during the rainy season.
- Suitable BMPs shall be implemented, such as placing silt fences, straw wattles, or catch basins below all construction activities at the edge of surface water features to intercept sediment before it reaches the waterway. These structures shall be installed prior to any clearing or grading activities.
- If spoil sites are used, they shall be placed where they do not drain directly into a surface water feature, if possible. If a spoil site would drain into a surface water feature, catch basins shall be constructed to intercept sediment before it reaches the feature. Spoil sites shall be graded and vegetated to reduce the potential for erosion.
- Erosion control blankets and other erosion control measures that employ monofilament netting shall be prohibited within the project area.
- Sediment control measures shall be in place prior to the onset of the rainy season and shall be monitored and maintained in good working condition until disturbed areas have been revegetated.

Conservation Measure #2 – Prevention of Accidental Spills

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

- A site-specific spill prevention plan shall be implemented if any potentially hazardous materials will be used during construction. The plan shall include the proper handling and storage of all potentially hazardous materials, as well as the proper procedures for cleaning up and reporting any spills. If necessary, containment berms shall be constructed to prevent spilled materials from reaching surface water features.
- Equipment and hazardous materials shall be stored a minimum of 50 feet away from surface water features.



- Vehicles and equipment used during construction shall receive proper and timely maintenance to reduce the potential for mechanical breakdowns leading to a spill of potentially hazardous materials. Maintenance and fueling shall be conducted in an area at least 50 feet away from surface water features or within an adequate fueling containment area.

Conservation Measure #3 – Air Quality/Dust Control

In the construction bid documents, the County's approved construction contractor shall include provisions that the contractor shall implement the following reduction measures to reduce vehicle emissions during construction, including:

- To the extent that equipment and technology is available and cost effective, the contractors shall use catalyst and filtration technologies.
- Idling time shall be limited to 5 minutes when construction equipment is not in use, unless engine manufacturer's specifications or safety considerations require more time.
- Contractors will commit to using the best available emissions control technology. The use of diesel construction equipment meeting the California Air Resources Board (CARB) 1996 or newer certification standard for off-road heavy-duty diesel engines and having Tier 4 engines will be maximized to the extent feasible. Equipment may be electrified if feasible, and gasoline-powered equipment should be substituted for diesel-powered equipment when feasible, unless alternatively fueled construction equipment can be used. If the use of all equipment with Tier 4 engine standards is not feasible, the contractor should commit to using CARB and Environmental Protection Agency-verified particulate traps, oxidation catalysts, and other appropriate controls when suitable to reduce emissions of diesel particulate matter and other pollutants during construction.

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

- All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover or vegetative ground cover.
- All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.
- All land clearing, grubbing, scraping, excavation, land leveling, grading, cut & fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.
- All loose materials transported to and from the construction site shall be covered, or effectively wetted to limit visible dust emissions, and at least 6 inches of freeboard space from the top of the container shall be maintained.



- Any topsoil removed during construction shall be stored on-site in piles no higher than 4 feet to allow development of microorganisms prior to replacing the soil in the construction area. The topsoil piles shall be clearly marked and flagged. Topsoil piles that will not immediately be used in the construction area shall be revegetated with a non-persistent erosion control mixture.
- Soil piles for backfill shall be marked and flagged separately from native topsoil stockpiles. These soil piles shall also be surrounded by silt fencing, straw wattles, or other sediment barriers or covered unless they are to be used immediately.
- Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.

Conservation Measure #4 – Prevention of Spread of Invasive Species

The following measures will be implemented to prevent the spread of invasive species as a result of the project:

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

Conservation Measure #5 – General Measures for Protection of Special-Status Wildlife Species

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

- Construction access and equipment will be located on existing roads or previously disturbed parking areas, to the extent practicable.
- Disturbance of soil, vegetation, naturally occurring debris piles (including fallen trees, woodrat nests, or dead tree snags), rocky outcrops, and wildlife burrows will be avoided or minimized to the extent possible.
- To the extent practicable, all holes or trenches will be covered at the end of each workday to prevent wildlife from becoming trapped. All holes and trenches will be inspected before each workday to facilitate the release of any trapped wildlife. A qualified biologist will be consulted if work crews are unable to safely assist in the release of trapped wildlife.
- To minimize attractants to wildlife, trash will be stored in containers that can be closed and latched or locked to prevent access by wildlife. All loose trash will be cleaned up daily.



Conservation Measure #6 – General Measures for Post-Construction Restoration

- Disturbed areas outside of the new bridge location and roadway approaches would be restored to pre-disturbance conditions, which would include grading to pre-project contours and reseeding with native grasses.
- After removal of the existing bridge, excavated areas would be filled with native soil from the new bridge excavations. Natural regeneration of vegetation would be expected along the banks following bridge removal, and plantings are not expected to be necessary.

Conservation Measure #7 – Measure for Paleontological Resources

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

Conservation Measure #8 – Wildfire Potential

The County shall include the following measure in the construction bid documents to minimize project-related potential for wildfire ignition:

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

Conservation Measure #9 – Treatment Protocol for Human Remains and Cultural Items

The County shall include the *Treatment Protocol for Handling Human Remains and Cultural Items Affiliated with the Yocha Dehe Wintun Nation* in the construction bid documents for the treatment of Native American human remains if any are found during project construction. The treatment protocol for human remains and cultural items is as follows:

The determination of Most Likely Descendant (MLD) under California Public Resources Code Section 5097.98 will be made by the Native American Heritage Commission (NAHC) upon notification to the NAHC of the discovery of said remains at a Project site. In the event that the NAHC determines that the Yocha Dehe Wintun Nation or member is the MLD, the Medical Examiner shall immediately be notified, ground disturbing activities in that location shall cease and the Tribe shall be allowed, pursuant to California Public Resources Code Section 5097.98(a), to (1) inspect the site of the discovery and (2) make determinations as to how the human remains and grave goods should be treated and disposed of with appropriate dignity.

The Tribe shall complete its inspection and make its MLD recommendation within forty-eight hours of getting access to the site. The Tribe shall have the final determination as to the disposition and treatment of human remains and grave goods. Said determination may include avoidance of the human remains, reburial on-site, or reburial on tribal or other lands that will not be disturbed in the future. If there are human remains present that have been identified as Native American, all work will cease for a period of up to 30 days in accordance with Federal Law.



All cultural items, including ceremonial items and archeological items, which may be found at a Project site should be turned over to the Tribe for appropriate treatment, unless otherwise ordered by a court or agency of competent jurisdiction.

If additional significant sites are discovered during project construction, such sites will be subjected to further archeological and cultural significance evaluation by the Project Proponent, the Lead Agency, and the Tribe to determine if additional mitigation measures are necessary to treat sites in a culturally appropriate manner consistent with CEQA requirements for mitigation of impacts to cultural resources.

2.7 REQUIRED PERMITS AND APPROVALS

The following permits and approvals likely will be required to implement the project:

- U.S. Army Corps of Engineers (Corps) – Sacramento District: Section 404 Nationwide Permit 14 (Linear Transportation Crossing Projects)
- California Department of Fish and Wildlife (CDFW) – Rancho Cordova office: Section 1602 Streambed Alteration Agreement
- Central Valley Regional Water Quality Control Board (RWQCB): Section 401 Water Quality Certification
- Central Valley Flood Protection Board: Encroachment Permit
- Documentation of compliance with the Yolo Habitat Conservancy

2.8 TRIBAL CONSULTATION

Yolo County, under the purview of Caltrans District 3, consulted with the Native American Heritage Commission (NAHC) and local Native American groups and individuals pursuant to Section 106 of the National Historic Preservation Act and Section 21080.3 of CEQA. This consultation included contacting the local Native American individuals identified by the NAHC via letters and follow-up phone calls. Additionally, NAHC conducted a review of its Sacred Lands database for culturally significant properties and responded that there are no records for the project area. One local Native American tribe responded to the consultation. The Yocha Dehe Wintun Nation responded via written correspondence on May 18, 2016 with concern for sites located downstream of the project site; however, there were no concerns expressed regarding known prehistoric or ethnographic-era resources within the immediate project vicinity.

As part of consultation requirements under Public Resources Code Section 21080.3, the County subsequently contacted representatives of the Yocha Dehe Wintun Nation (Yocha Dehe) and Cortina Rancheria Band of Wintun Indians of California via email on May 31, 2019. Cortina Rancheria Band of Wintun Indians did not respond to the email. Yocha Dehe sent a letter dated July 3, 2019 requesting additional consultation. The County met with the Yocha Dehe to discuss the project and the Tribe's requests on August 2, 2019, and again at the project site on September 3, 2019. Based on these consultation efforts, the County agreed to include the Tribe's Protocol for handling human remains and/or cultural artifacts in the IS/MND. Additionally, the County agreed to invite the Tribe to conduct construction monitoring during the project, and, subject to local public outreach, agreed to consider incorporating decorative features into the bridge design that represents the Tribe. Formal consultation with the Yocha Dehe was closed via a letter sent by the County on May 5, 2020.



2.9 NO PROJECT ALTERNATIVE

In addition to the action alternative, the County also considered a “No Project” alternative in its evaluation of the project, pursuant to CEQA. Under the No Project alternative, the County would not proceed with replacement of the existing bridge. However, Caltrans and FHWA have identified the existing bridge structure as being structurally deficient and inadequate. Implementation of the No Project alternative could result in future public safety issues associated with structural integrity and adequacy of the existing bridge.



3. ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

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

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

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

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

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



3.1 ENVIRONMENTAL SETTING

Regional Setting

The project is located on the northeast side of the Capay Valley. Cache Creek, which is a perennial stream, is the primary drainage feature and flows southeast under the existing bridge. Cache Creek is located within the Valley Putah-Cache Hydrologic Unit (Hydrologic Unit Code [HUC] 11). Flow from Cache Creek is regulated by dams along the North Fork Cache Creek at Indian Valley Reservoir and from Clear Lake along South Fork Cache Creek. Cache Creek is a tributary to the Sacramento River, which is a Navigable Waterway (U.S. Army Corps of Engineers 2017). From the project site, Cache Creek flows 35 miles southeast to the Sacramento River.

Local Setting

CR 41 is a rural road in an unincorporated area of Yolo County that serves several nearby residences. The dominant land uses in the vicinity of the project are rural residential, open space, and agricultural (e.g., orchards and vineyards).

Climate

Historical data used to describe the climate is collected at the Winters station located approximately 29 miles southeast of the project (Western Regional Climate Center 2016):

Type: The climate of the area is characterized by a Mediterranean climate with moderate winters and hot, dry summers.

Precipitation: Precipitation in the project area primarily occurs as rain, with occasional snowfall. The average annual rainfall is approximately 22 inches and the average annual snowfall is 0.1 inches.

Air Temperature: Air temperatures in the project area range between an average January high of 55 degrees Fahrenheit (°F), and an average July high of 97°F. The annual average high is approximately 76°F.

Growing Season: The growing season (i.e., 50% probability of air temperature 28 °F or higher) in the area is approximately 250-287 days and occurs from March to October.

Topography

The topography surrounding the project is nearly level with gentle slopes between 1-3 percent, which slope downwards towards Cache Creek. Elevations at the project site range from approximately 400 and 450 feet.



Hydrological Setting

Hydrology within the project site is driven by precipitation, sheet flow, and groundwater. The hydrologic features include Cache Creek, a perennial stream, and an unnamed intermittent stream that is tributary to Cache Creek. Drainage is primarily from west to east within the channel of Cache Creek. Flow from Cache Creek is regulated by dams along the North Fork Cache Creek at Indian Valley Reservoir and from Clear Lake along South Fork Cache Creek.

Soils

Three soil map units and/or miscellaneous land types occur in the project site. They are described in the *Soil Survey of Yolo County* (Natural Resources Conservation Service 2016). Soil map units occurring within the project are described in Table 1.

Table 1. Soil Map Units in the County Road 41 Over Cache Creek Bridge Replacement Project Area

Map Unit Name Taxonomy	Map Unit Reference Code	Drainage Class	Depth to Restrictive Layer	Hydric Soils
Yolo silt loam, 0 to 2 percent slopes	Ya	Well-drained	More than 80 inches	Predominantly nonhydric
Riverwash	Rh	Excessively drained	More than 80 inches	Predominantly hydric
Water	W	N/A	N/A	N/A

Geology

The project site is within approximately 6 miles of an active fault (Great Valley 03 Mysterious Ridge) (Crawford and Assoc. 2018). At the bridge site, published geologic mapping shows Pleistocene age to recent alluvium of multiple mapped units including Holocene Age alluvium shown approximately along the channel of Cache Creek and to the south of the existing bridge. This unit is described as undivided gravel, sand and silt deposited by present day stream and river systems. The unit bordering the creek to the north of the bridge site is shown as underlain by the upper member of the Pleistocene age Modesto Formation described as unconsolidated, unweathered gravel, sand, silt, and clay. Test boring data confirmed that the geology within the bridge is consistent with the public mapping. Surrounding the bridge site, on the edges of the valley are scattered riverbank deposits described as weathered reddish gravel, sand, and silt forming alluvial terraces (Taber Consultants, 2016).

Groundwater at the project site was measured approximately 1-3 feet below ground surface (Taber Consultants, 2016).



Vegetation Community Types

Vegetation communities were classified based on descriptions provided in *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer 1988). The plant communities or habitats consist of annual grassland, orchard-vineyard, valley foothill riparian, and riverine. Figure 3 shows the habitat communities and biological resources.

Annual Grassland. Annual grassland habitat is present on the terraces above Cache Creek, and along the edges of the orchards. Dominant plant species include wild oat (*Avena fatua*), ripgut brome (*Bromus diandrus*), Bermuda grass (*Cynodon dactylon*), smooth brome (*Bromus hordeaceus*), rattail sixweeks grass (*Vulpia myuros*), common fiddleneck (*Amsinckia intermedia*), bittercress (*Cardamine oligosperma*), broad-leaf pepperwort (*Lepidium latifolium*), winter vetch (*Vicia villosa*), field mustard (*Brassica rapa*), black mustard (*Brassica nigra*), yellow star-thistle (*Centaurea solstitialis*), and redstem filaree (*Erodium cicutarium*). Smilgrass (*Stipa miliacea*) is the dominant plant species along the flood plain adjacent to Cache Creek.

Orchard-Vineyard. Senescent walnut orchards are present in the northern half of project site. On the west side of CR 41, most of the English walnut (*Juglans regia*) trees have been removed and have been recently replaced with olives (*Olea europaea*) and grapes (*Vitis vinifera*). The remaining English walnuts are stunted, and the tree cover is sparse. The herbaceous groundcover is primarily non-native grasses and forbs including Bermuda grass, dallisgrass (*Paspalum dilatatum*), Johnson grass (*Sorghum halepense*), bird's-foot trefoil (*Lotus corniculatus*), California burclover (*Medicago polymorpha*), and common plantain (*Plantago lanceolata*).

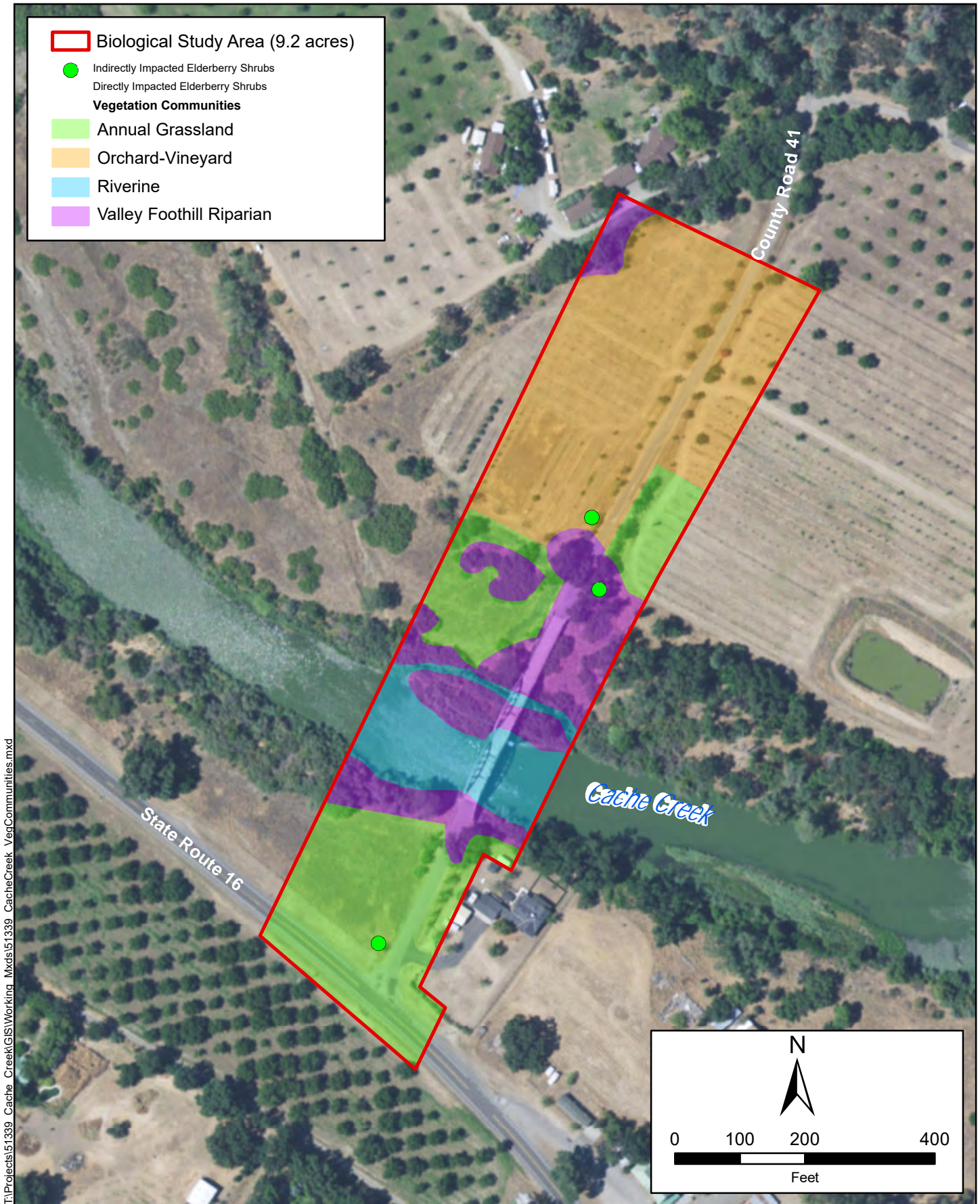
Valley Foothill Riparian. The valley foothill riparian community occurs along the banks and lower terraces adjacent to Cache Creek. Dominant canopy trees of this community include Fremont cottonwood (*Populus fremontii*) and valley oak (*Quercus lobata*); however, trees account for less than half of the canopy cover. Narrowleaf willow (*Salix exigua*), smallflower tamarisk (*Tamarix parviflora*), and ravenna grass (*Saccharum ravennae*) dominate the gravel bars within Cache Creek. Other common woody and herbaceous plants include mugwort (*Artemisia douglasiana*), mulefat (*Baccharis salicifolia*), torrent sedge (*Carex nudata*), yellow sweetclover (*Melilotus officinalis*), beard grass (*Polypogon* sp.), elderberry (*Sambucus* spp.), Olney's three-square bulrush (*Schoenoplectus americanus*), and smilgrass.

Riverine. Riverine habitat occurs within the channels of Cache Creek. It is dominated by run and riffle characteristics that are largely devoid of vegetation and have a substrate of primarily sand, gravel and cobble. During low-flows, exposed gravel bars support scattered individuals of beard grass, mint (*Mentha* sp.), loosestrife (*Lythrum* sp.), and American brooklime (*Veronica americana*).

Habitat Connectivity

Habitat corridors are segments of land that provide linkages between different habitats while also providing cover. On a broader level, corridors also function as avenues along which wide-ranging animals can travel, plants can propagate, genetic interchange can occur, populations can move in response to environmental changes and natural disasters, and threatened species can be replenished from other areas. Habitat corridors often consist of riparian areas along streams, rivers, or other natural features. Additionally, the rivers and streams themselves may serve as migration corridors for anadromous fish.





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Cache Creek, its adjacent riparian habitat, and the intermittent stream provide dispersal and migration corridors for regionally occurring plant and animal species. The project site is located upstream of a blockage classified as a total fish barrier by California Department of Water Resources and is located in a watershed classified as anthropogenically blocked for steelhead by the National Marine Fisheries Service (National Oceanic Atmospheric Administration 2019). As such, regionally occurring anadromous fish species do not occur in Cache Creek within the project area.

Invasive Species

Invasive plants (i.e., noxious weeds) are undesirable, non-native plants that commonly invade disturbed sites. Most species have been introduced from Europe and Asia and are known to degrade native wildlife habitat and plant communities. When disturbance results in the creation of habitat openings or in the loss of intact native vegetation, invasive plants may colonize the site and spread, often out-competing native species. Once established, they are very difficult to eradicate and could pose a threat to native species.

All non-native plant species were reviewed to determine their status as invasive plants according to the ratings in the California Invasive Plant Inventory produced by California Invasive Plant Council and updated in February of 2017 (Cal-IPC 2019). Cal-IPC categorizes non-native invasive plants into three categories of overall negative ecological impact in California: High, Moderate, and Limited. Occurrences of invasive species found in the project area with a Cal-IPC rating of “High” include yellow star thistle, smallflower tamarisk, perennial pepperweed (*Lepidium latifolium*).

Special Status Species

The habitats in the project area may support special-status species that are known to occur in the region. Special-status is defined herein as species that are (1) listed as threatened or endangered under the federal or California Endangered Species Act; (2) proposed for listing as threatened or endangered; (3) state or federal candidate species for listing as threatened or endangered; (4) designated as rare (plants), a species of special concern (wildlife), or fully protected (wildlife) by CDFW; or (5) ranked by the California Rare Plant Rank system as 1 or 2 (plants). Based on a field reconnaissance review of the project area and a review natural resource agency databases, literature, and other relevant sources, it was determined that the project area provides potential habitat for 12 special-status species. The information sources that were reviewed include aerial photography, USFWS list of endangered and threatened species, California Natural Diversity Database (CDFW, 2019a) and California Native Plant Society records for the Rumsey California 7.5 minute quadrangle and the eight surrounding quadrangles (CNPS, 2019), California Wildlife Habitat Relationships System (CDFW, 2019b), Inventory of Rare and Endangered vascular plants of California (CNPS, 2019), and the Jepson manual: Vascular Plants of California (Baldwin et. al. 2012). Based on the field reconnaissance and information review, it was determined that the following special-status species have the potential to occur within the project area:

- Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), federally listed as threatened
- Foothill yellow-legged frog (*Rana boylei*), California species of special concern
- Western pond turtle (*Emys marmorata*), California species of special concern
- Swainson’s hawk (*Buteo swainsonii*), California listed as threatened
- burrowing owl (*Athene cunicularia*), California species of special concern
- white-tailed kite (*Elanus leucurus*), California fully protected species



- loggerhead shrike (*Lanius ludovicianus*), California species of special concern
- California yellow warbler (*Dendroica petechia brewsteri*), California species of special concern
- Yellow-breasted chat (*Icteria virens*), California species of special concern
- ring-tailed cat (*Bassariscus astutus*), California fully protected species
- Pallid bat (*Antrozous pallidus*), California species of special concern
- Western red bat (*Lasiurus blossevillii*), California species of special concern

A comprehensive list of species that are known to occur in the region and were evaluated for their potential to occur in the project area is included in the Natural Environmental Study Report which is available upon request from the County. For species in which suitable habitat is not present in the project area, it was determined that the project area is outside the species' known range, or the species was not detected in the project area during focused field surveys (applies to plants only) and are thus not considered further. Note that, with exception of valley elderberry longhorn beetle surveys, presence/absence surveys for other special-status wildlife species have not been conducted; however, the field surveys identified the presence of habitat that could support the wildlife listed above.



3.2 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
I. AESTHETICS — Except as provided in Public Resources Code Section 21099, would the project:				
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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion of Impacts

- a) **Less than Significant Impact.** The project is located in the Capay Valley, portions of which are considered a scenic resource for Yolo County. The segment of State Route 16 that is adjacent to the project is designated by the County as a local scenic roadway (Yolo County, 2009). Project implementation would have minor, localized effects on aesthetics and visual resources. Modifications to the landscape resulting from project implementation would be consistent with the current nature of the road corridor and adjacent parcels. Although the roadway and bridge vertical profile may be raised to clear the design hydraulic flow with adequate freeboard, the appearance of these features on the landscape would only minimally affect views seen from the closest neighbor's vantage point outside of the project area. Views afforded travelers and recreationalists would be very similar to existing views of the road and creek channel corridors except that the new bridge would not include the more architecturally distinct characteristics of the historical bridge.
- b) **Less than Significant Impact.** CR 41 is not designated as a local scenic highway in the County's General Plan, or a state scenic highway as designated by Caltrans. Highway 16, which intersects CR 41 near the project site is considered "eligible" as a State-designated scenic highway, however, it has not yet been officially designated (Caltrans, 2019a). The segment of State Route 16 that is adjacent to the project is designated by the County as a local scenic roadway (Yolo County, 2009). The original Rumsey Bridge, built in 1930, was constructed as a two-span reinforced concrete-through-tied-arch structure. The bridge is supported by reinforced concrete piers and abutments, both supported on pile foundations with an unknown depth. The original two-span structure



consists of the main concrete-tied-arch spans; each span is 108 feet long, for a total bridge length of 216 feet. Due to flood damage, the bridge was rehabilitated and extended in 1949 with two additional 47.5-foot long cast-in-place reinforced concrete T-beam spans on the north end of the bridge.

The new bridge would not have arches or structures raised much above the guardrails, and the old bridge including its arches would be removed following new bridge construction, slightly decreasing vividness while increasing intactness and unity with the surrounding landscape. Views afforded travelers and recreationalists would be very similar to existing views of the road and creek channel corridors except that the new bridge would not include the more architecturally distinct characteristics of the historical bridge and would not have features that could obstruct views of the landscape..

- c) **Less than Significant Impact.** Neighbors residing near the project site would be the most susceptible to changes to scenic resources during and after construction since they would presumably have the most familiarity with existing conditions. The closest neighbor is immediately adjacent to CR 41 at the southeastern corner of the project site and would experience noticeable changes in the physical characteristics of the existing environment during project construction and removal of the existing bridge. Other homes in the project vicinity, including two on the northern side of the creek and one to the east in Rumsey, are set back from the bridge by at least 700 feet, and views of the bridge from these homes are partially buffered by vegetation and distance. Consequently, changes in visual quality and aesthetics would have minor effects on these neighbors' perception of the visual resources.

The project would also be noticeable by infrequent recreationalists drifting on the creek through the project area on river rafts and kayaks. If these viewers had previously been to the project location, they may notice that the proposed bridge is less unique, prominent, and vivid in the landscape than the historic double-arched bridge it replaced. For the first few years after project construction they may also notice that the channel and creek banks around the proposed bridge are disturbed and relatively bare due to earthwork and vegetation removal. As replanted vegetation in the creek channel and banks matures, the new bridge would blend with the riparian creek corridor, becoming less prominent, and increasing intactness and unity with the surrounding natural and rural setting for all viewer groups.

- d) **Less than Significant Impact.** The project would not create a permanent, new source of light or glare. The new bridge, signs, and reflectors would be visually similar to the existing bridge. Construction activities would include the use of equipment and staging of materials, which could create a temporary source of glare. These activities would not substantially affect travelers along nearby roads. Construction activities would be scheduled during daytime hours, to the extent practicable, to reduce the need for nighttime lighting within the project area. The realigned bridge and CR 41 approach angle would slightly direct vehicle headlights away from the closest residence. New metal guardrails and signage, required for safety purposes, could be an increased source of glare, but would be partially obstructed by tree lines and fences surrounding the one close residence.



Mitigation Measures

None required.

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

Discussion of Impacts

- a) **Less than Significant Impacts.** Lands within the project area are mapped by the Department of Conservation, Farmland Mapping and Monitoring Program as Grazing Land, Farmland of Local Potential, and Prime Farmland (California Department of Conservation 2019a). Cache Creek flows within an area zoned and designated as Agriculture. Farmland of Local Potential is located just beyond the north and south banks of Cache Creek within the project area, and Prime Farmland is



located northeast of the project site on both sides of CR 41. The project would require the permanent conversion of approximately 0.08 acre of Prime Farmland on the north side of Cache Creek. In 2016, Prime Farmland accounted for approximately 38 percent of the total land inventoried in Yolo County (California Department of Conservation 2019b). Additionally, the project is exempt from the County's Agricultural and Conservation Program (Yolo County Code Section 8-2.404(c)(2)(ii)); therefore, impacts resulting from the permanent conversion of land would be negligible and would not significantly impact important farmland within the county.

- b) **Less Than Significant Impact.** The affected parcels within the project area are zoned by Yolo County as Agricultural Intensive (A-N). Cache Creek has a General Plan designation as Open Space and is zoned Public Open Space (POS). The property located east of Cache Creek is in a Williamson Act contract (Pers Comm Yolo County, 2019).

Construction activities are expected to temporarily impact approximately 2.5 acres of agricultural land. Following construction, the majority of the impacted area would be restored to pre-project conditions. The new bridge, and roadway approaches would permanently impact approximately 1.3 acres of agricultural land of which, 0.5 acre is under a Williamson Act contract. The permanent conversion of agricultural land in Yolo County would be minor (<0.0001%) relative to the total acreage of agricultural land within the county (approximately 532,266 acres [California Department of Conservation 2019b]). Non-renewal of Williamson Act contracts is allowable by public agencies who have specific authority to acquire land through eminent domain, and the removal of the 0.5 acre to accommodate the project would therefore not conflict with the California Land Conservation Act (California Department of Conservation, 2020). Additionally, the loss of approximately 0.5 acre of Williamson Act land would not constitute a significant loss of total contracted Williamson Act land in Yolo County, therefore impacts would be less than significant.

- c) **No Impact.** There are no lands zoned as forest land or timberland, or Timberland Production lands within the project area.
- d) **No Impact.** The project area does not include any forestland.
- e) **No Impact.** The project would have no additional direct or indirect effects on farmland other than those impacts previously described.

Mitigation Measures

None required.



	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
III. 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:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion of Impacts

- a) **No Impact.** Air pollution control will conform to Caltrans Standard Specifications, which state that the contractor shall comply with all applicable air pollution control rules, regulations, ordinances, and statutes. Therefore, implementation of the project will not result in a conflict with local air quality planning policies.
- b) **Less Than Significant Impact.** Yolo County is currently a state non-attainment area for particulate matter, 10 microns or less (PM₁₀) and ozone (YSAQMD 2019). Construction activities associated with the project could result in a relatively minor net increase in PM₁₀ and ozone. While the amount of PM₁₀ and ozone generated by the project would be minor, it would nevertheless be considered a significant impact because of the County’s current non-attainment status for PM₁₀ and ozone. However, the project, would not be cumulatively significant, considering emissions associated with construction activities would cease once the project is completed. Additionally, adherence to Caltrans Standard Specifications and *Northern Sacramento Valley Planning Area 2018 Triennial Air Quality Attainment Plan* (Sacramento Valley Air Quality Engineering and Enforcement Professionals 2018) and implementation of *Conservation Measure #3—Air Quality/Dust Control* (described in Section 2.6) will maintain impacts at a less than significant level.
- c) **Less Than Significant Impact.** There is one residence located within approximately 150 feet from the project area. Construction activities would result in short-term increases in emissions from construction equipment that would generate dust, exhaust, and tire-wear emissions. These activities would temporarily create fugitive dust (PM₁₀ and PM_{2.5}) and would generate both reactive organic compounds (ROG) and nitrogen oxides (NO_x). Fugitive dust could affect local air quality in the area immediately surrounding the project area. Adherence to the Caltrans Standard Specifications and *Northern Sacramento Valley Planning Area 2018 Triennial Air Quality*



Attainment Plan (Sacramento Valley Air Quality Engineering and Enforcement Professionals 2018) and implementation of *Conservation Measure #3—Air Quality/Fugitive Dust Control* (described in Section 2.6) will maintain impacts at a less than significant level.

- d) **Less Than Significant Impact.** Emissions, including minimal amounts of odor from diesel-powered equipment, may be produced in the immediate vicinity around the project site from use of combustion-operated equipment and asphalt-paving activities. These activities would be temporary and intermittent and would dissipate with distance from vehicle. Therefore, impacts would be considered less than significant.

Mitigation Measures

None required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES — Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by 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, 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"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<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"/>



	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion of Impacts

- a) **Less Than Significant with Mitigation Incorporated.** A Natural Environment Study (NES) report (Stantec, 2019), which analyzes the project effects on biological resources was approved by Caltrans in July 2019. On November 25, 2013, a Stantec¹ biologist conducted a reconnaissance-level survey for biological resources and a delineation of waters of the United States. The purpose of the biological survey was to characterize the habitats in the project area, to assess the potential for special-status animal species to occur, and to record observations of special-status plants. Based on a review of habitat requirements and the findings, a protocol-level survey for valley elderberry longhorn beetle (VELB) was conducted on June 2, 2016.

Based upon the review of habitat requirements of regionally occurring special-status fish and wildlife species and the results of the field assessments, the project area provides habitat for 12 special-status wildlife species:

- Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), federally listed as threatened
- Foothill yellow-legged frog (*Rana boylei*), California species of special concern
- Western pond turtle (*Emys marmorata*), California species of special concern
- Swainson’s hawk (*Buteo swainsonii*), California listed as threatened
- burrowing owl (*Athene cunicularia*), California species of special concern
- white-tailed kite (*Elanus leucurus*), California fully protected species
- loggerhead shrike (*Lanius ludovicianus*), California species of special concern
- California yellow warbler (*Dendroica petechia brewsteri*), California species of special concern
- Yellow-breasted chat (*Icteria virens*), California species of special concern
- ring-tailed cat (*Bassariscus astutus*), California fully protected species
- Pallid bat (*Antrozous pallidus*), California species of special concern
- Western red bat (*Lasiurus blossevillii*), California species of special concern

Valley Elderberry Longhorn Beetle. Three elderberry shrubs are present within the project area that have stems of sufficient size (i.e., 1.0 inches or greater) to provide habitat for VELB. As a result of the protocol-level VELB survey, a total of 34 stems 1.0 inch or greater in diameter at ground level were recorded. Potential VELB exit holes were identified in four of the 34. Two shrubs are located within the valley foothill riparian habitat on either side of CR 41 just north of the creek and one shrub is located near the northern shoulder of CR 41 approximately 60 feet northeast of State

¹ Stantec was formerly known as North State Resources.



Route 16 and approximately 215 feet southwest of the existing bridge (see Figure 3). Construction could have indirect impacts on VELB due to ground-disturbing activities occurring within approximately 35-feet of one shrub, as well as direct impacts on VELB as two shrubs (one near the intersection of State Route 16 and CR 41, and one at the northernmost portion of the project site) would require removal. VELB is a covered species under the Yolo Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP). Because of the potential for the proposed project to affect a federally listed species, a biological assessment (BA) was prepared for Caltrans to initiate consultation with the USFWS under Section 7 of the Endangered Species Act. USFWS issued a Biological Opinion on October 31, 2017 (Caltrans Fed. ID#BRLO-5922(077)), concurring that the project may affect and is likely to adversely affect VELB.

Conservation measures #s 1-5 (described in Section 2.6) have been incorporated into the project design to minimize impacts on sensitive biological resources to the greatest extent practicable. Specific avoidance and minimization measures, as detailed in *Mitigation Measure #1 – Valley Elderberry Longhorn Beetle*, will also be implemented to further reduce the potential for impacts.

Foothill Yellow-Legged Frog. Direct impacts on individual foothill yellow-legged frogs, if present in the work area during construction, could include injury or mortality, increased risk of predation, and increased stress. Indirect impacts could include alteration of potential aquatic/breeding habitat and the release of sediment or other pollutants into Cache Creek downstream of the project area.

Work performed in and around Cache Creek would initiate in the late spring while flows are lowest in the creek and would be suspended in the winter months while creek flows are high. As such, to the extent practicable, project activities will be timed during the active season for foothill yellow-legged frog and will reduce the likelihood of foothill yellow-legged frogs being encountered in the work area. Additionally, work would only occur within the channel of Cache Creek once the stream diversion has been installed and the work area has been dewatered. This would further reduce the likelihood of encountering the species since they are closely tied to perennial water sources.

The implementation of the proposed project would result in the temporary disturbance of approximately 1 acre of foothill yellow-legged frog aquatic habitat (i.e., Cache Creek) and up to 0.1 acre of upland habitat (i.e., riparian wetlands) adjacent to the creek. Approximately 0.03 acre of aquatic habitat and 0.03 acre of upland habitat would be permanently removed. Abundant potential aquatic and upland habitat for the species would remain in the vicinity of the project area, and approximately 0.02 acre of aquatic habitat and 0.02 acre of upland habitat for the species would be restored through the demolition of the existing bridge foundations and footings and restoration of the area to surrounding natural conditions. *Mitigation Measure #2 – Yellow-legged Frogs* will reduce construction impacts to a less than significant level. This species may also be affected if construction activities result in degradation of aquatic habitat and water quality due to erosion and sedimentation, accidental fuel leaks, and spills. *Conservation Measure #1 – Erosion and Sediment Control* and *Conservation Measure #2 – Prevention of Accidental Spills of Pollutants* (described in Section 2.6) will be used to maintain water quality. In addition, loss of riverine and riparian habitat may have a negative impact on these species; therefore, *Conservation Measure #4 – Prevention of Spread of Invasive Species*, *Conservation Measure #5 – General Measures for Protection of Special-Status Wildlife Species*, and *Conservation Measure #6 – General Measures for Post-*



Construction Restoration (described in Section 2.6) will be used to reduce impacts on foothill yellow-legged frogs to a less than significant level.

Western Pond Turtle. The project area is in the current range of western pond turtle. Shallow pools, rocks, logs, and open banks are present in and adjacent to Cache Creek and provide potential aquatic and basking habitat for the species within the project site. Upland habitat consisting of burrows of leaf litter and/or burrows within the soil, and suitable grassy open upland areas for egg-laying is also present along the creek banks. Western pond turtle is a covered species under the Yolo HCP/NCCP.

Project impacts on western pond turtle would be similar to those described for foothill yellow-legged frog. Direct impacts could include injury or mortality of individual turtles; temporary impediments to dispersal along the creek channel; and the removal of vegetation in upland habitats adjacent to Cache Creek. Indirect impacts could include potential sedimentation of downstream habitats where the turtle may occur or the reduction of suitable upland habitat for basking and nesting within the project site. *Mitigation Measure #3 – Western pond turtle* combined with implementation of *Conservation Measure #1 – Erosion and Sediment Control*, *Conservation Measure #2 – Prevention of Accidental Spills of Pollutants*, *Conservation Measure #4 – Prevention of Spread of Invasive Species*, *Conservation Measure #5 – General Measures for Protection of Special-Status Wildlife Species*, and *Conservation Measure #6 – General Measures for Post-Construction Restoration* (described in Section 2.6) will reduce construction impacts on western pond turtles to a less than significant level.

Special-Status Bird Species, Migratory Birds, and Raptor. The annual grasslands, trees, shrubs, and other features (e.g., existing bridge) in and near the project site provide potential nesting and foraging habitat for various bird species, such as Swainson's hawk, burrowing owl, white-tailed kite, loggerhead shrike, yellow warbler, yellow-breasted chat, and other migratory birds and raptors. The California Natural Diversity Database contains recorded occurrences of Swainson's hawk within 5 miles of the project site (California Department of Fish and Wildlife 2019a). Inactive cliff swallow nests were also observed on the underside of the existing Cache Creek Bridge during the June 2, 2016 site visit, indicating previous nesting activities. Swainson's hawk and white-tailed kite are covered under the Yolo HCP/NCCP.

Construction activities (e.g., vegetation removal and equipment noise) would be scheduled during the avian breeding season (generally February through September, depending on the species) and could disturb nesting birds in or adjacent to the project site. Construction-related disturbance could result in the incidental loss of fertile eggs or nestlings, and/or nest abandonment. The demolition of the bridge may result in the direct removal of nests (e.g., cliff swallow nests) or affect nesting birds if nests are present in the surrounding vicinity. The removal of the trees and vegetation from the annual grassland, valley foothill riparian habitats may be necessary to accommodate the new road alignment and bridge and would directly affect nesting birds if nests are present in the vegetation. Other construction activities such as grading, excavation, and paving near trees could also disturb nesting birds.



In total, the project would result in the permanent removal of up to 0.9 acre of vegetation, which includes approximately 0.3 acre of annual grassland, and 0.2 acre of valley foothill riparian, and 0.2 acre of orchard-vineyard habitats (Figure 3). Abundant potential nesting habitat for avian species would remain in the vicinity of the project, and approximately 0.04 acre of valley foothill riparian habitat will be restored through the demolition of the existing bridge foundations and footings and restoration of the area to surrounding natural conditions. *Mitigation Measure #4 – Special-Status Bird Species, Migratory Birds, and Raptors* combined with implementation of *Conservation Measure #5 – General Measures for Protection of Special-Status Wildlife Species* (described in Section 2.6) will reduce construction impacts on migratory birds and raptors to a less than significant level.

Ring-tailed Cat. The project area is located in the range of ring-tailed cat. Woody debris piles and other substrates (i.e. underground cavities, tree snags, hollow trees) are present in the foothill riparian habitat along Cache Creek provide potential foraging and denning habitat for the species.

The removal of the trees and vegetation from the riparian habitat may be necessary to accommodate the new road alignment and bridge and could directly affect (e.g., dismemberment, crushing, loss of nearby foraging habitat) ring-tailed cat natal rearing locations if they are present. Other construction activities such as grading, excavation, and paving which occur near natal rearing location could result in reduced fecundity, site abandonment, and/or loss of young. Construction activities would result in approximately 0.3 acre of riparian vegetation being removed permanently and 0.1 acre being temporarily disturbed. Abundant potential foraging and denning habitat would remain in the vicinity of the project site, and approximately 0.04 acre of valley foothill riparian habitat will be restored through the demolition and restoration of the existing bridge foundations and footings. *Mitigation Measure #5 – Ring-tailed Cat* combined with implementation of *Conservation Measure #5 – General Measures for Protection of Special-Status Wildlife Species* (described in Section 2.6) will reduce construction impacts to ring-tailed cats to a less than significant level.

Pallid Bat and Western Red Bat. The project is located within the range of pallid bat and western red bat. Tree snags/cavities within the valley foothill riparian habitats were observed in the project area and provide potential roosting habitat for pallid bat. Potential roosting habitat for western red bat also is present in the valley foothill riparian tree foliage adjacent to Cache Creek. Crevices and cavities are also present in the existing Cache Creek bridge and provide potential roosting habitat for both bat species.

Impacts on pallid and western red bats would be similar to those described above for nesting birds. Construction activities could disturb roosting bats in the riparian vegetation or snags present in the project area and in other nearby trees. Bridge removal could disturb bats roosting on the bridge. Foraging activity would not be affected because construction activities would take place during the day. The permanent loss of approximately 0.3 acre of valley foothill riparian vegetation (i.e., roosting habitat) is anticipated with the placement of the new bridge (Figure 3). However, abundant potential roosting habitat for the species would remain in the vicinity of the project, and approximately 0.04 acre of valley foothill riparian habitat will be restored through the demolition of the existing bridge foundations and footings and restoration. *Mitigation Measure #6 – Pallid Bat and Western Red Bat* combined with implementation of *Conservation Measure #5 – General Measures*



for *Protection of Special-Status Wildlife Species* (described in Section 2.6) will reduce construction impacts on pallid bats and western red bats a less than significant level.

- b, c) **Less than Significant Impact.** Riparian habitat (i.e., valley foothill riparian) is located in the project site and is considered a sensitive natural community by the Corps and CDFW. Waters of the United States includes perennial stream (Cache Creek), the adjacent riparian wetlands, and an intermittent stream. A total of 1.627 acres of waters of the United States is present within the project site and includes approximately 0.7 acre of a riparian wetland, 0.007 acre (104 linear feet) of an intermittent stream, and 0.9 acre (310 linear feet) of perennial stream (Cache Creek). Cache Creek flows southeast under the existing bridge. The width of the creek within the project area ranges from approximately 90 to 190 feet wide. The creek is characterized as a bed and bank feature with cobble, gravel and sand substrates.

Two riparian wetlands occur along the banks of Cache Creek. The creek also supports valley foothill riparian habitat along its banks and lower terraces. Dominant vegetation includes Fremont cottonwood, white alder, Himalayan blackberry, and torrent sedge. The intermittent stream occurs in the northwestern extent of the project area and is fed by sheet flow from the surrounding landscape during precipitation events and groundwater. Cobble, gravel, and sand dominate the stream substrate. It is primarily devoid of vegetation within the ordinary high water mark.

Temporary and permanent impacts on waters of the United States are anticipated as a result of implementation of the project. Up to 0.9 acre (310 feet) of Cache Creek could be temporary affected during in-channel work for the construction of the new bridge (see Figure 3). In-channel work would include cofferdams to divert water around the in-channel work area using pipes or narrowed channels and the temporary placement of timber pads or driven steel piles to support the temporary falsework. Up to 0.1 acre of riparian wetland would also be temporarily affected for the demolition of the existing bridge foundations (0.04 acre), and the construction of the new bridge (0.07 acre). Approximately 0.03 acre (40 feet) of Cache Creek and up to 0.03 acre of riparian wetland would be permanently filled for the new bridge foundations/footings and the placement of RSP. The project would also result in the removal of the existing bridge foundations and footings and the subsequent restoration of those areas. Up to 0.02 acre (40 feet) of Cache Creek and 0.02 acre of riparian wetland would be restored through the removal of the existing foundations and footings.

Based on the current project designs, the total temporary impacts on waters of the United States are estimated at approximately 1 acre (310 feet), and the total permanent impacts will result in the fill of approximately 0.06 acre (40 feet). A total of 0.04 acre (40 feet) of existing fill in waters of the United States would be restored once the existing bridge has been demolished and the area restored. Construction activities could also result in indirect water quality impacts on Cache Creek and associated wetlands. *Mitigation Measure #7 – Waters of the United States* combined with Conservation Measures #1 – Erosion and Sedimentation Control and #2 – Prevention of Accidental Spills (described in Section 2.6) will reduce construction impacts to a less than significant level.

- d) **Less than significant.** Cache Creek, its adjacent riparian habitat, and the intermittent stream provide dispersal and migration corridors for regionally occurring plant and animal species. The



project site is located upstream of a blockage classified as a total fish barrier by California Department of Water Resources and is located in a watershed classified as anthropogenically blocked for steelhead by the National Marine Fisheries Service (National Oceanic Atmospheric Administration 2019). As such, regionally occurring anadromous fish species do not occur in Cache Creek within the project area. During project construction, wildlife will be able to move around the project area or move through it at night. Additionally, once construction is complete the project area will be restored and wildlife will continue to be able to move around the project area, similar to existing conditions. Therefore, the project would not interfere substantially with the movement of native fish and wildlife, resulting in a less than significant impact.

- e) **No Impact.** The project is compatible with the goals and objectives described in the County's General Plan (Yolo County, 2009) Conservation and Open Space Element and the Oak Woodland Conservation and Enhancement Plan (Yolo County, 2007).
- f) **Less than Significant.** Yolo County recently enacted the HCP/NCCP (January 2019). In 2017, the project underwent consultation with the Service as part of the regulatory approval process under the Endangered Species Act, for which a Biological Opinion was provided. The project is a rural infrastructure project and is considered a "covered activity" with 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. 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 avoidance and minimization measures (AMMs) based on presence of modeled species' habitat. The project specific avoidance and minimization measures that apply to the project are AMMs 1, 3, 4, 5, 6, 8, 9, 10, 12, 14, 16, 20, and 21, which are defined below. Through payment of mitigation fees and implementation of the listed AMMs, impacts would be less than significant.

Mitigation Measures

Mitigation Measure #1 – Valley Elderberry Longhorn Beetle (Yolo HCP/NCCP AMM 12: Minimize Take and Adverse Effects on Habitat of Valley Elderberry Longhorn Beetle)

The following avoidance and minimization measures will be implemented to minimize the potential for adverse impacts on VELB to the maximum extent possible:

- The two directly impacted elderberry shrubs (see Figure 3) will be mitigated for using the *USFWS Conservation Guidelines for the Valley Elderberry Longhorn Beetle* (Service 1999) and Avoidance and Minimization Measure 12, *Minimize Take and Adverse Effects on Habitat of Valley Elderberry Longhorn Beetle*, as described in the Yolo HCP/NCCP (Appendix C of the report). The two elderberry shrubs will be transplanted to a USFWS and Yolo Habitat Conservancy (Conservancy)-approved beetle conservation bank in accordance with the guidelines.
- The one elderberry shrub not being directly impacted by the proposed project's activities will be flagged and fenced with a buffer of 20 feet from the dripline. Signage will be posted indicating the



need for avoidance. Dust control measures will be implemented to minimize impacts to this elderberry shrub.

- A USFWS- approved biologist will conduct environmental awareness training for all individuals that will be working on the proposed project before any work begins. The environmental awareness training will highlight the habitat needs of the beetle and the location of the on-site protection area.
- A USFWS-approved biologist will conduct a pre- and post-construction survey of the one elderberry shrub not directly impacted as a result of the proposed project. The pre-construction survey will document the conditions of the elderberry shrub prior to construction activities and document compliance with mitigation measures. The post-construction survey will verify that no additional impacts to the elderberry shrub took place due to the proposed project.

Mitigation Measure #2 – Foothill Yellow-Legged Frog

The following measures shall be implemented during construction:

- A qualified biologist shall conduct a survey within 5 day prior to the initiation of in-channel construction activities for the species to confirm its status (i.e., presence/absence) within the project area. Should foothill yellow-legged frogs be identified during implementation of the project, the County may need to apply for an Incidental Take Permit (ITP) to comply with the California Endangered Species Act (CESA) if the species at the time is considered a candidate or listed species under CESA.
- A qualified biologist, knowledgeable of foothill yellow-legged frogs, will brief construction personnel during the environmental awareness training in regard to the species habitat requirements, life history, and distinguishing morphological characteristics.
- To avoid potential injury or mortality to foothill yellow-legged frogs using vegetated areas for cover along Cache Creek, initial vegetation clearing (i.e., removal of small trees, shrubs, brush, and tall dense grasses) along Cache Creek will be done manually using hand tools (e.g., chainsaw, lopper, weed whacker). The vegetation will be cut to ground level and be removed from the work area by hand, to the extent feasible.
- The outside limits of the work area will be staked, flagged, and/or signed to avoid encroachment by equipment and construction crews outside of the project boundaries. The number of access routes, and the total area of impacts will be limited to the minimum necessary to achieve the project goal. This goal includes locating access routes and construction areas outside of the creek to the maximum extent practicable. The demarcated areas will confine access routes and construction areas to the minimum area necessary to complete construction and minimize the impact on natural habitats in the project area.
- Upon completion of construction activities for the winter, any diversions or barriers to flow will be removed in a manner that would allow flow to resume with the least disturbance to the substrate. Alteration of the streambed will be minimized to the maximum extent possible.



Mitigation Measure #3 – Western Pond Turtle (Yolo HCP/NCCP AMM 14: Minimize Take and Adverse Effects on Habitat of Western Pond Turtle)

The following measures will reduce potential impacts to western pond turtles.

- A pre-construction survey for western pond turtle shall be conducted concurrently by a qualified biologist when performing the survey for foothill yellow-legged frog. If a western pond turtle nest is identified during the survey, the biologist shall flag the site and determine if construction activities can avoid affecting the nest. If the nest cannot be avoided, it will be excavated and re-buried at a suitable location outside of the construction impact zone by a qualified biologist. The County will inform CDFW if the nest cannot be avoided and such an activity must occur.
- If a qualified biologist determines that there is a moderate to high likelihood of western pond turtle nests within the disturbance area, 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.
- Western pond turtle shall be included in the workers environmental awareness training presented to construction personnel.

Mitigation Measure #4 – Special-Status Bird Species, Migratory Birds, and Raptors (Yolo HCP/NCCP AMMs 16, 18, 20, and 21: Minimize Take and Adverse Effects on Habitat of Special-Status Bird Species)

The project has been designed to minimize impacts on native habitats to the maximum extent practicable. In addition to the conservation measures that have been incorporated into the project (see Section 2.6), the following measures will be implemented to further reduce the potential for impacts on special-status and migratory birds and raptors that may nest in or near the project area:

- Because construction activities cannot avoid the breeding season for native birds, the County will retain a qualified biologist to conduct a pre-construction survey of the project area and within an appropriate distance from the work limits, as access is available (e.g., 0.25 mile for Swainson's hawk, 250 feet for other raptors, and 100 feet for passerines). The pre-construction survey will be timed between February 15 and September 15, but no more than 14 days prior to the implementation of construction activities (including staging and equipment access). In accordance with the Yolo HCP/NCCP, the results of the survey will be submitted to the Conservancy and CDFW.
- If active nests are found during the pre-construction survey, the County will coordinate with CDFW and USFWS on additional protection measures, such as establishment of a buffer around the nest tree. No construction activity will be conducted within this zone during the nesting season (generally February through September) or until such time that the biologist determines that the nest or burrow is no longer active. The buffer zone will be marked with flagging, stakes, or other means to mark the boundary. All construction personnel will be notified of the existence of the buffer zone and shall avoid entering the buffer zone during the nesting season. If project related activities within the temporary nest disturbance buffer are determined to be necessary during the nesting season, then the qualified biologist will monitor the nest and will, along with the project proponent, consult with



CDFW to determine the best course of action necessary to avoid nest abandonment or take of individuals. Work may be allowed only to proceed within the temporary nest disturbance buffer if Swainson's hawk or white-tailed kite are not exhibiting agitated behavior, such as defensive flights at intruders, getting up from a brooding position, or flying off the nest, and only with the agreement of CDFW and USFWS. The designated on-site biologist/monitor shall be on-site daily while construction-related activities are taking place within the 1,320-foot buffer and shall have the authority to stop work if raptors are exhibiting agitated behavior.

- To deter cliff swallows from nesting and bats from roosting under the existing bridge, the County will install an exclusionary device (e.g., netting) around the bridge prior to the initiation of the avian breeding season (i.e., before February 15) during the same year as bridge removal is proposed and after a qualified biologist has determined no nesting activity or bats are present within the area to be netted. The exclusionary device will remain in place until August 15 or until the bridge is demolished. The exclusionary device will be anchored such that swallows cannot attach their nests to the structure through gaps and bats cannot reach suitable night roosting habitat at the top of the bridge abutments. If swallows begin building nests on the structure after installation of the exclusionary device, the County will coordinate with CDFW and will remove the nesting material in the presence of a qualified biologist to ensure the destruction of an active nest does not occur. Bridge removal may be delayed until the nests are no longer active.

Mitigation Measure #5 – Ring-tailed Cat

The project has been designed to minimize impacts on native habitats, to the maximum extent practicable. In addition to the standard construction practices that have been incorporated into the project, the following measures are recommended to ensure the potential for direct and indirect impacts on ring-tailed cat are minimized to the greatest extent feasible:

- Given that work will occur during the natal denning period for ring-tailed cat (March 1 to June 30), the County will retain a qualified biologist to conduct a pre-construction survey concurrently with the foothill yellow-legged frog and western pond turtle surveys. If an active denning location is identified during the survey, the County will coordinate with a qualified biologist and CDFW, as necessary, on additional protection measures.
- The environmental awareness training will include information on ring-tailed cat.
- If ring-tailed cat is encountered in the project area during construction, work will stop and the individual will be allowed to freely egress the work area.

Mitigation Measure #6 – Pallid Bat and Western Red Bat

The project has been designed to minimize impacts on native habitats, to the maximum extent practicable. In addition to the standard construction practices that have been incorporated into the project, the following measures will be implemented to further reduce the potential for impacts on special status bats:



- In conjunction with the pre-construction nesting bird survey, a qualified biologist will conduct a reconnaissance-level pre-construction survey of suitable roosting locations in the project area. The pre-construction survey will be performed to determine if the existing vegetation or bridge is being used by bats as a roosting location.
- To deter bats from roosting under the existing bridge, the County will install an exclusionary device (e.g., netting) around the bridge prior to the initiation of the avian breeding season (i.e., before February 15) during the same year as bridge removal is proposed and after a qualified biologist has determined no bats are present within the area to be netted.
- If the biologist finds evidence of bat roosts, the biologist will attempt to determine which species are present, which features are being used, and for which roosting purpose. If it is determined that roosting bats are not present or are only using the area as a night roost (i.e., no young are present in the roost), no further avoidance and minimizations measures are necessary.
- If western red bat or pallid bat day roost or maternity roosts are identified during the survey, the County will coordinate with CDFW to determine the appropriate method to remove the roosting structure. Removal of the existing bridge and vegetation would need to be scheduled before the birthing season for bats (i.e., prior to May 1) or after young bats are able to fly (i.e., after August 31). Removal of active roosts should be conducted in a manner that allows the bats the best opportunity to leave during darker hours to increase their chance of finding new roosts with minimum exposure to predation during daylight.

Mitigation Measure #7 – Waters of the United States (Yolo HCP/NCCP AMMs 1, 3, 8, 9, and 10: Establish Buffers around Sensitive Natural Communities; Confine and Delineate Work Area to Avoid and Minimize Effects of Construction Staging Areas and Temporary Work Areas; Avoid and Minimize Effects on Wetlands and Waters)

The following measures shall be implemented to avoid or minimize the potential for project-related impacts on waters of the United States:

- The County will comply with the terms of a Clean Water Act Section 404 permit issued by the Corps and Section 401 water quality certification issued by the RWQCB for activities involving the discharge of fill material into Cache Creek or the riparian wetlands. For activities in and along Cache Creek, the County will also comply with terms of a Streambed Alteration Agreement with the CDFW (if determined necessary by the CDFW). The actual project impacts will be calculated once final designs are available and during the permit application process. Prior to any discharge of dredged or fill material into Cache Creek, the perennial stream, or the riparian wetlands, the required permits and authorizations will be obtained from the respective agencies. All terms and conditions of the required permits and authorizations will be implemented.
- All waters of the United States temporarily affected by project construction will be restored as close as practicable to their original contours and conditions.
- The County will design the roadway improvements to avoid direct and indirect impacts on the wetlands, to the greatest extent practicable, and designate all wetlands outside the area of permanent



impact as environmentally sensitive areas (refer to Figure 3). These areas will be identified on construction drawings and demarcated in the field with flagging and/or signs identifying the area as off limits to all personnel, equipment, and ground-disturbing activities. In addition, water quality BMPs will be installed around the wetlands (outside the wetland boundaries) in a manner that prevents water, sediment, and chemicals from draining into the features, and all staging, storage, stockpile areas, and off-road travel routes will be located as far as practicable away from the wetlands.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
V. CULTURAL RESOURCES — Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 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 Section 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion of Impacts

- a, b) **Less Than Significant with Mitigation Incorporated.** An Archeological Survey Report (ASR) (North State Resources 2017a) and a Historical Property Survey Report (HPSR) (North State Resources 2017b) were prepared for the project. Neither the archival research nor the archaeological survey that were conducted for the ASR identified any prehistoric or other historic-era cultural sites, features, or artifacts within or immediately adjacent to the project site. Additionally, no potentially sensitive landforms or soil deposits possibly indicative of early Native American or historic-era activities were noted.

The ASR found that cultural resources have been documented in the general vicinity of the project area, suggesting that there is a potential for presently unrecorded resources to be encountered during ground-disturbing activities associated with project construction. Although no impacts on known cultural resources are anticipated, undetected evidence of historical resources could be exposed during project excavation activities. This would be a potentially significant impact. Implementation of *Conservation Measure #9 – Treatment Protocol for Human Remains and Cultural Items* as well as *Mitigation Measure #8 – Cultural Resources* will reduce potential impacts on historic resources to a less than significant level.

Rumsey bridge is listed in the Office of Historic Preservation’s Directory of Properties in the Historic Property Data File for Yolo County. The bridge is also listed on the California Register of Historical Resources and is listed as a Category 2 bridge by Caltrans as eligible for listing in the National



Register of Historic Places. No other buildings, structures, or objects in the APE requiring recordation were found (North State Resources 2017b).

The removal of the Rumsey bridge would be a significant impact. *Mitigation Measure #9 – Historic Properties* will be used to reduce any potential impacts on cultural resources to a less than significant level.

- c) ***Less than Significant with Mitigation Incorporated.*** Although no impacts on known cultural resources are anticipated, currently undetected cultural resources or evidence of human remains could be exposed during project excavation activities. This would be a significant impact. *Conservation Measure #9 – Treatment Protocol for Human Remains and Cultural Items, Mitigation Measure #8 – Cultural Resources and Mitigation Measure #10 – Human Remains* will be used to reduce any inadvertent project-related impacts on human remains to a less than significant level.

Mitigation Measures

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

Mitigation Measure #8 – Cultural Resources

Per Caltrans Exhibit 5.1 in Volume 2 of the Standard Environmental Reference, it is Caltrans' policy to avoid cultural resources whenever possible. If buried cultural materials are encountered during construction, it is Caltrans' policy that work stop in that area until a qualified archaeologist can evaluate the nature and significance of the find."

Mitigation Measure #9 – Historic Properties

Per the Memorandum of Agreement between Caltrans and the State Historic Preservation Officer (SHPO), the County will implement the following:

Recordation

- Record and document the Rumsey bridge following the standards of the Historic American Engineering Record
- Locate historic construction drawings of the Rumsey bridge
- Complete a written report describing the physical characteristics of the Rumsey bridge, construction history and details its significance under National Register criteria
- Provide copies to Caltrans, SHPO, Yocha Dehe Wintun Nation, Yolo County Historical Society, Esparto High School, Yolo County Archives, and the Northwest Information Center at Sonoma State University



Interpretation

- Design, produce and install a permanent metal plaque on a concrete or boulder mount that provides a brief history of the Rumsey Bridge
- Prepare a booklet on the Rumsey bridge containing historic photographs and/or drawings, and text describing the bridge (design and construction) and use history; property type; significance character-defining features; and its historic significance and background (including photographs and descriptions of previous bridge crossings at this location). Copies will be distributed to local libraries, local historical societies, organizations and museums.

Mitigation Measure #10 – Human Remains

If human remains and related items are discovered during project activities, all activities near the find shall be suspended. Remains will be treated in accordance with the requirements of Health and Safety Code Section 7050.5(b). If pursuant to of Health and Safety Code Section 7050.5(c) the coroner determines that the human remains are or may be those of a Native American, then the discovery shall be treated in accordance with the provisions of Public Resources Code Sections 5097.98 (a)-(d). The County Coroner shall be contacted if human remains are discovered. The County Coroner shall have two working days to inspect the remains after receiving notification. During this time, all remains, associated soils, and artifacts shall remain in situ and/or on site and shall be protected from public viewing. This may include restricting access to the discovery site and the need to hire 24-hour security.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
VI. ENERGY — Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<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 type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion of Impacts

- a) **Less than Significant Impact.** During construction, vehicles, including worker commuter vehicles and heavy construction equipment, would require the use of gasoline and diesel fuel for power. Construction is anticipated to last approximately 14 months. This short duration of equipment usage would not create a wasteful or significant increase in demand for fuel supplies; therefore, impacts to energy resources would be less than significant.



- b) **No Impact.** The project includes the replacement of a bridge and does not require the use of energy for operations: therefore, operation of the new bridge would not conflict with or obstruct a state or local plan for renewable energy.

Mitigation Measures

None required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
VII. GEOLOGY AND SOILS — Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	<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 type="checkbox"/>	<input checked="" 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 strata or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, 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 wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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"/>



Discussion of Impacts

- a, i-iv) **Less than Significant Impact.** The nearest active fault to the site is the Great Valley 03 Mysterious Ridge located over six miles northwest of the site (Taber Consultants 2016). No active faults are shown on published mapping to cross the site and the site is not within or adjacent to an Alquist–Priolo Earthquake Fault Zone for fault rupture hazard. No geomorphic evidence of fault rupture was observed at the site during the 2014 field investigation (Crawford and Assoc. 2018). Therefore, the potential for fault rupture (and associated ground displacement) to adversely affect the proposed structure is considered very low. To reduce the potential for seismically induced hazards, Caltrans seismic design parameters, including staged increases in spectral acceleration, will be incorporated into the project design (California Department of Transportation 2019b). Due to the lack of active faults near the project site, the project would not expose people or structures to seismic ground shaking or seismic-related ground failure.

Soil liquefaction is a secondary effect associated with seismic loading. It can occur when saturated, loose to semi-compact, granular soils, or specifically defined cohesive soils, are subjected to ground shaking sufficient to increase pore pressures to trigger liquefaction. In general, liquefaction hazard is most severe within the upper 50 feet of the ground surface. Due to the predominant presence of dense/hard soils below the water table, the potential for liquefaction at the site is considered low.

The topography in the area is nearly level with gentle slopes between 1-3 percent, which slope towards Cache Creek, and would not be subject to a landslide.

- b) **Less than Significant Impact.** Construction activities would result in soil disturbance in portions of the project area to accommodate the new bridge approaches. Overall soil loss would be minimal with implementation of standard construction practices for dust control and stormwater pollution prevention. Erosion and sediment control measures included in *Conservation Measure #1 – Erosion and Sedimentation Control* (described in Section 2.6) and a stormwater pollution prevention plan (SWPPP) will be used during construction to minimize the potential for erosion. Post-project, the potential for erosion to occur in the project area would be like current conditions. Therefore, the project would result in less than significant impacts relating to soil erosion and loss of topsoil.
- c) **Less than Significant Impact.** At the bridge site, published geologic mapping shows Pleistocene age to recent alluvium of multiple mapped units (Helley and Baker 1979). These include Holocene Age alluvium shown approximately along the channel of Cache Creek and to the south of the existing bridge. This unit is described as undivided gravel, sand and silt deposited by present day stream and river systems. The unit bordering the creek to the north of the bridge site is shown as underlain by the upper member of the Pleistocene age Modesto Formation described as unconsolidated, unweathered gravel, sand, silt and clay. Surrounding the bridge site, on the edges of the valley are scattered riverbank deposits described as weathered reddish gravel, sand, and silt forming alluvial terraces. Due to the predominant presence of dense/hard soils below the water table, the potential for lateral spreading, collapse or liquefaction at the site is considered low.



- d) **Less than Significant Impact.** Expansive soils are defined as those soils with a plasticity index of 15 percent or greater; soil unit types within the project area do not exceed a plasticity index 5 percent (Natural Resources Conservation Service 2018). Expansive soils are not present within the project area. The new embankment and fill will be in accordance with Caltrans Standard Specifications and would include at least 95 percent relative compaction on all fill within 150 feet of the bridge abutments; therefore, impacts would be less than significant.
- e) **No Impact.** The project does not involve septic or wastewater systems.
- f) **Less than Significant with Mitigation Incorporated.** A paleontologically important rock unit is one that is known to produce unique, scientifically-important fossils specimens in relative abundance. The Santa Rosa Sheet of the Geologic Map of California (Koenig 1963) indicates that the underlying geology of the project area consists of Quaternary terrace deposits that are non-marine in origin. Soils in a majority of the project area consist primarily of Yolo silt loam, while a small portion of the project area consists of Riverwash soils. The soil profiles and geologic map for the surrounding area indicate that alluvial processes have shaped the region over a considerable period of time. A review of published data indicates that there are known deposits associated with the Cretaceous period within an approximately 1-mile radius of the project site (Paleobiology Database 2019). While no known paleontological resources occur within the project site, the regional occurrence of resources suggests that there is potential for uncovering fossil remains during project-related earth-moving activities. Substantial damage to, or degradation of unique paleontological resources would represent a significant impact. Compliance with *Conservation Measure #7 – Measure for Paleontological Resources* (described in Section 2.6) and implementation of *Mitigation Measure #11 - Paleontological Resources* would address potential direct or indirect impacts to unique paleontological resources and reduce any such impact to a less-than-significant level.

Mitigation Measures

Mitigation Measure #11 – Paleontological Resources

If paleontological resources (i.e., fossils) are discovered during project construction, all work within 100 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.



	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS — Would the Project:				
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 any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion of Impacts

- a) **Less Than Significant Impact.** Emissions of greenhouse gases (GHGs) from the project would be generated offsite from the production of materials used for the bridge as well as onsite construction-related equipment emissions. Emissions of GHGs resulting from off-road heavy-duty diesel engines during construction activities would be short-term and minor. Implementing *Conservation Measure #3—Air Quality/Dust Control* would further reduce GHG emissions and would ensure that project-related impacts remain less than significant.
- b) **Less Than Significant Impact.** Air quality in the project area is regulated by the Yolo-Solano Air Quality Management District (YSAQMD). 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 2019). The State of California has also adopted several regulations related to GHG emissions reduction. These include efforts to reduce tailpipe emissions and diesel exhaust produced by fuel-combustion engines.

Implementing *Conservation Measure #3—Air Quality/Dust Control* would reduce GHG emissions and would ensure that project-related impacts would remain less than significant. In addition, the project would not cause an increase to the generation of emissions because traffic levels would be similar to current conditions. As such, the project would not conflict with any plans, policies or the regulation of greenhouse gas emissions.

Mitigation Measures

None required.



	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIALS — Would the project:				
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use compatibility plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion of Impacts

a, b) **Less than Significant with Mitigation Incorporated.** Project construction and operation would not routinely generate any hazardous materials. No hazardous materials are currently stored, or proposed for use or storage, in the project area. Project operation would not involve the use or storage of any hazardous materials. Although construction would not generate any hazardous materials, a potential hazard to the public and the environment would be posed by using diesel or gasoline powered construction equipment (trucks, excavators, etc.) and lubricants such as oil and hydraulic fluids. The potential for such a hazard would be temporary and mitigable since equipment would be routinely maintained and inspected to avoid leaks and is similar to vehicles operating on nearby roads. Best management practices described in *Conservation Measure #2—Prevention of*



Accidental Spills (described in Section 2.6) were incorporated into the project design and will be used to reduce potential impacts associated with accidental spills of pollutants (i.e., fuel, oil, grease, etc.) on vegetation and aquatic habitat resources within the project area. Use of this conservation measure will reduce potential impacts associated with accidental spills of pollutants (i.e., fuel, oil, grease, etc.) to a less than significant level.

An Initial Site Assessment (ISA) was prepared (Taber Consultants 2016) that included an evaluation of the presence or likely presence of hazardous substances or petroleum products within the project area. The review included analysis of painted surfaces of the existing Rumsey Bridge. The ISA concluded that painted surfaces had lead concentrations below the regulatory threshold (Table Consultants, 2016). The ISA also concluded that there was no direct or indirect evidence of a hazardous spill or release of petroleum products in the project or immediately adjacent properties. No clear uses of asbestos in construction materials, such as bridge pads or shims, were observed in the study area; however, samples were not collected to verify the absence of asbestos. Therefore, the likelihood of releasing hazardous to the environment is low; however, in the event that bridge materials contain asbestos, significant impacts could occur. Implementation of *Mitigation Measure #12-Asbestos* and the incorporation of *Conservation Measure #2—Prevention of Accidental Spills* (described in Section 2.6) into the project design will reduce the potential of an accident involving the release of hazardous materials into the environment, reducing impacts to a less than significant level.

- c) **No Impact.** There are no schools located within one-quarter mile of the project site.
- d) **Less than Significant Impact.** The ISA that was prepared for the project included a review of federal and state records of known contaminated sites, regulated landfill sites, underground tank sites, and hazardous-waste generators in the project vicinity. No potential hazardous materials or waste sites were listed in the project vicinity. The project area is not included on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.
- e) **No Impact.** The project is not located within an airport land use compatibility plan or within 2 miles of a public airport or public use airport.
- f) **Less than Significant Impact.** During construction of the replacement bridge, the existing bridge would remain open to allow two-way vehicular access through the project area. Although temporary, short duration disruptions to normal traffic operations would occur during construction, the impact would be less than significant. The project is not anticipated to impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan because vehicular access would be maintained through the project area during construction.
- g) **Less than Significant Impact with Mitigation Incorporated.** The project area and vicinity consist mostly of existing road corridor, undeveloped grasslands, riparian, and orchards. Rural residential, agricultural, and some commercial uses are adjacent to and within an approximate 1-mile radius of the project site. The use of construction equipment in and around vegetated areas increases the potential for wildfire ignition. Implementation of *Conservation Measure #8 - Wildfire Potential* (described in Section 2.6) will reduce the risk of wildfire associated with project construction to a less than significant level. Operation of the project would not increase the existing wildfire potential.



Mitigation Measures

Mitigation Measure #12 – Asbestos

Prior to demolishing the existing bridge, a Certified Asbestos Consultant (CAC) will assess the presence of asbestos in building materials. The CAC assessment will be submitted to the YSAQMD and will be included in the written notification of demolition of structures or renovation operations at least 10 business days prior to commencing work, regardless of the presence or absence of asbestos in building materials.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY — Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" 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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>



Discussion of Impacts

- a) **Less Than Significant with Mitigation Incorporated.** Construction and operation of the project would not violate any water quality standards or waste discharge requirements set forth by the Central Valley RWQCB in its Basin Plan for the Sacramento River and San Joaquin River Basins (Central Valley Regional Water Quality Control Board 2018). Cache Creek is listed as an impaired water body under Section 303(d) of the Clean Water Act (Central Valley Regional Water Control Board 2019) and construction within the creek could cause soil erosion and sedimentation that would degrade water quality downstream of the project area. Water pollution control measures have been incorporated into the project design and are required according to Caltrans Standard Specifications (Sections 13 and 21-2). Additionally, project activities would comply with the requirements set forth in a 401 Water Quality Certification, which is required by the RWQCB prior to project implementation. Implementation of *Conservation Measure #1 - Erosion and Sediment Control* and *Conservation Measure #2 - Prevention of Accidental Spill* (described in Section 2.6) will ensure the impacts on water quality as a result of project implementation would remain less than significant.
- b) **No Impact.** Construction and operation of the project would have no effect on groundwater supplies. There would be no net change in local aquifers or the local groundwater table because of the project.
- c, i-iv) **Less than Significant Impact.** The layout for the project would temporarily alter the existing drainage pattern of the site through the use of pipes or narrow channels in Cache Creek that would divert the creek during construction of the falsework and new bridge foundations. However, the area would be returned to preexisting conditions once construction is complete and would not substantially change the channel in such a way that it would result in increased erosion, surface runoff, flooding on or off site, or otherwise degrade water quality. Changes or improvements to the existing drainage system would not create excessive run-off, nor increase the amount of surface runoff beyond current conditions. Impacts resulting from changes to existing drainage patterns would be less than significant.
- d) **No Impact.** The bridge is located within a FEMA Flood Zone A without Base Flood Elevations (Avila and Assoc. 2019), which is subject to inundation by the 1 percent annual chance flood event, however the project would not introduce a risk for release of pollutants due to inundation. The project is not located within a tsunami or seiche zones.
- e) **No Impact.** The project may require a minimal amount of localized dewatering during construction; however, quantities would be negligible and would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan

Mitigation Measures

None required.



	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
XI. LAND USE AND PLANNING — Would the project:				
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"/>

Discussion of Impacts

- a) **No Impact.** The project would not divide an established community. Construction would be temporary, and roads would remain passable.
- b) **No Impact.** The project would not require any changes to land uses or zoning and would not conflict with the County General Plan, including the Capay Valley Area Plan, or Zoning Ordinances. The project would not conflict with any applicable conservation plans.

Mitigation Measures

None required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
XII. MINERAL RESOURCES — Would the project:				
a) Result in the loss of availability of a known mineral resource classified MRZ-2 by the State Geologist that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion of Impacts

- a) **No Impact.** The project area is not in an important mineral resource area, as depicted in the County’s General Plan (Yolo County, 2009) or in the Cache Creek Resources Management Plan (Yolo County, 2002). Gravel mining activities do not occur at this location. It is unlikely that lands



within the project area would be considered an important aggregate resource. The project would have no impact on mineral resources.

- b) **No Impact.** No locally important mineral resource recovery sites are located within the project area.

Mitigation Measures

None required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
XIII. NOISE — Would the project result in:				
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne 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"/>

Discussion of Impacts

- a) **Less than Significant with Mitigation Incorporated.** Construction activities would temporarily increase noise levels in the vicinity of the project area. Actual noise levels would vary throughout the day depending on the type of construction equipment involved, activities being implemented, and distance between the source of the noise and receptors. Noise levels for typical construction equipment anticipated to be used for the project are listed in Table 2. Several residences are present near the project area, and construction noise would temporarily expose residents to increased noise levels, ranging from about 76 to 101 decibels (dBs) at 50 feet from the activity. The closest residence is more than 50 feet from work area (approximately 65 feet from CR 41 and over 100 feet from the south abutment of the existing bridge). This residence is located on property zoned as Agricultural Intensive which, according to the County’s General Plan, Health and Safety Element, the residence is not considered to be a “sensitive” receptor². Noise levels would be expected to attenuate (decrease) as they travel away from the source. Nighttime construction is not

² Yolo County defines sensitive receptors as: residentially designated land uses; hospitals, nursing/convalescent homes, and similar board and care facilities; hotels and lodging; schools and daycare centers; and neighborhood parks (Yolo County 2009).



expected; however, if nighttime construction is necessary, the contractor would comply with noise standards outlined in Caltrans Standard Specifications, and applicable construction equipment will be equipped with appropriate mufflers pursuant to the Standard Specifications. Construction noise would be temporary, but it could be potentially significant due to high levels of noise from pile driving within the project area. Pile driving would not last more than one week; however, Mitigation Measures #13 – *Maintain and Equip Construction Equipment with Noise Control Devices* and #14 *Coordinate with Residences to Minimize Noise Disturbance* will be implemented to reduce noise exposure to nearby receptors and ensure impacts are less than significant. Long-term noise associated with use of CR 41 would be similar to current conditions.

Table 2. Typical Construction-Related Noise Levels

Construction Equipment	Typical Noise Level (dB) 50 Feet from Source
Pile driver (impact)	101
Truck	88
Bulldozer	85
Concrete mixer	85
Grader	85
Loader	85
Crane (mobile)	83
Concrete pump	82
Pump	76

Source: Federal Transit Administration 2006

- b) **Less than Significant Impact.** Use of large pieces of equipment (e.g., excavators, heavy trucks) and certain activities, such as pile driving during construction would result in the periodic and temporary generation of groundborne vibrations. Vibration levels for typical large equipment range from approximately 0.003 to 0.089 inch per second peak particle velocity and 58–87 dB in velocity level at 25 feet from the activity (Federal Transit Administration 2006). Groundborne vibrations above 0.25 inch per second could result in damage to nearby buildings; however, vibrations associated with the project would not be this intense and would not result in excessive vibrations. The vibrations generated by construction equipment would spread through the ground and diminish in magnitude as they travel away from the source. Groundborne vibrations would be limited to the construction phase and would result in less than significant impacts.
- c) **No Impact.** The project area is not within the vicinity of a private or public airstrip or within an airport land use plan.



Mitigation Measures

Mitigation Measure #13 – Maintain and Equip Construction Equipment with Noise Control Devices

The County shall ensure that the construction contractor implements the following mitigation measures during construction activities:

- Construction activities shall be limited to the hours of 7 a.m. to 7 p.m. when activities occur within 500 feet of a residential receptor or other noise-sensitive land use.
- All construction equipment shall be properly maintained and equipped with noise control, such as mufflers, in accordance with manufacturers' specifications.
- The simultaneous operation of multiple construction equipment within 100 feet of residences shall be prohibited. Equipment not in use shall not be left idling for more than minutes when not in use.

Mitigation Measure #14 – Coordinate with Residences to Minimize Noise Disturbance

The County will work with the construction contractor and nearby residents to minimize disturbance to occupied residences. Before construction near noise-sensitive receptors, the County shall provide written notification to potentially affected receptors, identifying the type, duration, and frequency of construction operations. Notification materials will also identify a mechanism for residents to register noise-related complaints with the County; the County shall consider noise-related concerns on a case-by-case basis, but at a minimum will implement a 7 p.m. to 7 a.m. noise curfew in the event of complaint (in addition to the requirements of Mitigation Measure #13).

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
XIV. POPULATION AND HOUSING — Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<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"/>



Discussion of Impacts

- a) **No Impact.** Replacement of the existing bridge structure would have no effect on population or housing. The project would not increase traffic capacity or extend road access.
- b) **No Impact.** Existing housing near CR 41 would not be displaced by the project and no replacement housing would be required.

Mitigation Measures

None required.

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

Discussion of Impacts

- a) CR 41 is not used to access any parks, schools, or other public facilities. The new bridge would provide an improved, safer road and bridge across Cache Creek. During construction of the replacement bridge, traffic would be routed over the existing bridge, which would remain operational pending completion of the new bridge. No adverse effects on service ratios, response times, or service objectives for any of the public services are anticipated. The project would have a less than significant impact on fire and police protection and no impacts on schools, parks or other public facilities.



Mitigation Measures

None required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
XVI. RECREATION — Would the project:				
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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion of Impacts

- a) **No Impact.** There are no recreational facilities in the vicinity of the project. The project would not require the construction or expansion of recreational facilities. The project would have no impact on recreation.

Mitigation Measures

None required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
XVII. TRANSPORTATION — Would the project:				
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 (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards to a geometric 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"/>



Discussion of Impacts

- a) **No Impact.** The project consists of replacing the existing substandard bridge with a new bridge. CR 41 is a two-lane rural road. CR 41 has an average daily traffic of approximately 60 vehicles per day and only occasional bicycle and pedestrian traffic, including creek access. 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.** The project would not have an impact on vehicle miles traveled. During the 14-month construction period, worker commute and equipment hauling vehicles would be traveling to and from the project site causing a minor temporary increase in localized traffic; however, this would be temporary and would cease once construction is complete. Once completed, the project would not result in any changes to vehicle miles travelled. The impact associated with temporary increases in project-related traffic would be less than significant.
- c) **No Impact.** The purpose of the project is to improve public safety by replacing a deficient bridge. The project does not incorporate design features that will substantially increase hazards or introduce incompatible uses. The new bridge would be located west of the existing bridge along a new upstream alignment. The roadway would also be oriented along a new bearing relative to the original alignment so that the new road could intersect State Route 16 at a perpendicular angle. This would improve the intersection geometrics relative to the existing condition, and also allow for the existing bridge to remain open during construction to accommodate traffic. The project will have no impact with respect to this issue.
- d) **Less than Significant Impact.** During construction of the replacement bridge, traffic would be routed over the existing bridge. Stop signs during non-construction times and flagging during construction are anticipated. Although temporary, short-duration disruptions to normal traffic operation may be required during project construction. CR 41 would remain open to traffic during construction and have a less than significant impact on emergency vehicle access.

Mitigation Measures

None required.



	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
XVIII. TRIBAL CULTURAL RESOURCES — Would the project: cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<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 Resources 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"/>

Discussion of Impacts

a, b) **Less Than Significant with Mitigation Incorporated.** In the year 2013 the County, under the purview of Caltrans District 3, consulted with the NAHC and local Native American groups and individuals pursuant to Section 106 of the National Historic Preservation Act. This consultation included contacting the local Native American individuals identified by the NAHC via letters, follow-up phone calls, and an onsite visit. Additionally, the NAHC conducted a review of its Sacred Lands database for culturally significant properties and responded that there are no records for the project area. One local Native American tribe responded to the consultation. The Yocha Dehe Wintun Nation responded with concern for sites located downstream of the project site; however, there were no concerns expressed regarding known prehistoric or ethnographic-era resources within the immediate project vicinity. The Cortina Band of Indians did not have any specific concerns regarding the project, but recommended consultation to occur directly with the Yocha Dehe Wintun Nation. No other tribes responded to the outreach efforts.

The County, pursuant to Section 21080.3.1 of CEQA, subsequently contacted representatives of the Yocha Dehe Wintun Nation and Cortina Rancheria Band of Wintun Indians of California via



email on May 31, 2019. The Yocha Dehe Wintun Nation sent a letter dated July 3, 2019 requesting additional consultation. The County held a conference call with representatives of the tribe on August 2, 2019 and held a project field review with members of the Yocha Dehe Wintun Nation on September 3, 2019. A summary of this effort is included in Section 2.8, Tribal Consultation. The consultation did not result in the identification of any known resources within the project area that would be impacted by the project. However, in the event of the inadvertent discovery of a resource during construction, the impact could be significant. *Conservation Measure #9 – Treatment Protocol for Human Remains and Cultural Items, Mitigation Measure #8 – Cultural Resources, and Mitigation Measure #10 – Human Remains* will be used to ensure that any potential impacts on cultural resources are avoided or will be less than significant.

Mitigation Measures

Conservation Measure #9 – Treatment Protocol for Human Remains and Cultural Items, Mitigation Measure #8 – Cultural Resources, and Mitigation Measure #10 – Human Remains (described in Chapter 3, Section V – Cultural Resources) will be used to avoid or minimize project-related impacts on tribal cultural resources.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
XIX. UTILITIES AND SERVICE SYSTEMS — Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<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 checked="" type="checkbox"/>	<input 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"/>



Discussion of Impacts

- a) **Less than Significant.** The project would require some relocation of public utilities. There is an existing overhead utility to the east side of the existing bridge. It may be possible that the overhead utility be kept in place without relocation. Telephone conduit mounted onto the south side of the bridge would need to be relocated to the new bridge. An existing DWR stream gauge, USGS sediment sampler, YCFCWCD camera, and related equipment may also need to be relocated or replaced and attached to the new bridge. Relocation of these existing utilities would require minimal effort and would be conducted as part of overall construction. Utility relocation(s) would not cause significant environmental effects and impacts would be less than significant.
- b,c) **No Impact.** The project would not involve any actions that would require a new water supply or generate wastewater. No new water or wastewater facilities would be constructed or needed as part of the project.
- d) **Less than Significant Impact.** Construction activities associated with the project would generate solid waste in the form of demolished materials, metal pilings, and other trash. Some of the demolished bridge components may be recycled. Waste generated at the project site will be disposed of at a suitable facility. The closest landfill is the Yolo County Central Landfill, located approximately 46 miles from the project. The landfill has a permitted capacity of 48,035,200 cubic yards (CalRecycle 2019). The project would not generate solid waste in amounts that would adversely affect the existing capacity of the Yolo County Central Landfill. The contractor would be responsible for removing the existing bridge from the site. This impact is expected to be less than significant.
- e) **No Impact.** Any solid waste generated by the project will be disposed of at an approved landfill, in compliance with local, state, and federal regulations pertaining to solid waste disposal. The project will have no impact with respect to this issue

Mitigation Measures

None required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
XX. WILDFIRE — If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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 type="checkbox"/>	<input checked="" 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"/>

Discussion of Impacts

- a) **No Impact.** The project is being implemented to replace an existing bridge. The replacement bridge would provide an improved, safer road and bridge across Cache Creek. During construction traffic would be routed over the existing bridge, maintaining traffic flow in the area. The project would not impair an adopted emergency response plan or emergency evacuation plan.
- b) **No Impact.** The replacement bridge would not exacerbate wildfire risks or expose occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.
- c) **No Impact.** The project would not require the installation or maintenance of associated infrastructure that would exacerbate fire risk.
- d) **Less than Significant.** The project would not expose people or structures to significant risks from runoff, instability or drainage changes. Incorporation of *Conservation Measure #6 – General Measures for Post-Construction Restoration* (described in Section 2.6) will ensure that construction impacts remain at a less than significant level.

Mitigation Measures

None required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE				
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	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion of Impacts

- a) **Less Than Significant Impact with Mitigation Incorporated.** As discussed in the preceding sections, the project has a potential to result in adverse effects on air quality, biological resources, cultural resources, and noise. Potential impacts on these resources are discussed in detail in the corresponding sections above. With implementation of the conservation measures and mitigation measures, all potential impacts will be reduced to a less than significant level.
- b) **Less Than Significant Impact.** The project will include improvements to an existing transportation system by replacing an existing bridge structure with a new bridge. The project will not introduce new development into a previously undeveloped area. Impacts associated with the project will be limited to the construction phase of the project and will be fully mitigated at the project level. As a result, the project's contribution to any cumulative impacts will be less than considerable. Therefore, this impact will be less than significant.
- c) **Less Than Significant Impact with Mitigation Incorporated.** The project could result in a variety of impacts on human beings, however, only during the construction phase. Potential adverse effects on nearby residents are related to minor temporary decreases in air quality, hazards and hazardous materials, and temporary increases in noise levels during construction. Conservation and mitigation measures, as described in the corresponding sections above, will be implemented to avoid or minimize potentially adverse effects to humans resulting from the construction of the project. The project will not involve any actions that will have a substantial direct or indirect impact on the human environment that cannot be mitigated to a less than significant level.



4. DETERMINATION

Based on this initial evaluation:

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



May 18, 2020

Signature

Date

Stephanie Cormier, Principal Planner
Yolo County, Planning Division



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5. MITIGATION MONITORING AND REPORTING PROGRAM

This chapter comprises the Mitigation Monitoring and Reporting Program (MMRP) for the CR 41 over Cache Creek Bridge Replacement Project (project). The purpose of this MMRP is to memorialize the mitigation responsibilities of the Lead Agency, in this case Yolo County, in implementing the proposed project. The mitigation measures listed herein are required by law or regulation and will be adopted by the County as part of the overall project approval. Mitigation is defined by the California Environmental Quality Act (CEQA) – Section 15370 as a measure that

- avoids the impact altogether by not taking a certain action or parts of an action;
- minimizes impacts by limiting the degree or magnitude of the action and its implementation;
- rectifies the impact by repairing, rehabilitating, or restoring the impacted environment;
- reduces or eliminates the impact over time by preservation and maintenance operations during the life of the project; or
- compensates for the impacts by replacing or providing substitute resources or environments.

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

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

5.1 LEGAL REQUIREMENTS

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

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

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

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



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

5.2 INTENT OF THE MITIGATION MONITORING AND REPORTING PROGRAM

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

5.3 DEVELOPMENT AND APPROVAL PROCESS

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

5.4 AUTHORITIES AND RESPONSIBILITIES

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

- coordination of monitoring activities
- maintenance of records concerning the status of all approved mitigation measures

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

5.5 RESOLUTION OF NONCOMPLIANCE COMPLAINTS

Any person or agency may file a complaint that alleges noncompliance with the mitigation measure(s) adopted as part of the approval process for the project. The complaint shall be directed to Todd Riddiough, Senior Civil Engineer, Yolo County Department of Community Services, Public Works Division, 292 W. Beamer St. Woodland, CA 95695, in written form describing the purported violation in detail. The County shall investigate and determine the validity of the complaint. If noncompliance with a mitigation measure is verified, the County shall take the necessary action(s) to remedy the violation. Complaints shall be responded to in writing including descriptions of County's investigation findings and the corrective action(s) taken, if applicable.



5.6 SUMMARY OF MONITORING REQUIREMENTS

Following this discussion are the mitigation measures and associated monitoring requirements for the project. The mitigation measures are organized by environmental issue area (i.e., Air Quality, Biological Resources, etc.) and consist of the following:

- **Mitigation Measure(s):** lists the mitigation measure(s) identified for each potentially significant impact discussed in the IS/MND. The same mitigation numbering system used in the IS/MND is carried forward in this MMRP.
- **Timing/Implementation:** Indicates at what point in time or project phase the mitigation measure will need to be implemented.
- **Enforcement:** Indicates which agency or entity is responsible for enforcement of the mitigation measure(s).
- **Monitoring:** Indicates which agency or entity is responsible for implementing and mentoring each mitigation measure.
- **Verification:** Provides a space to be signed and dated by the individual responsible for verifying compliance with each mitigation measure.

5.7 CONSERVATION MEASURES

Conservation Measure #1 – Erosion and Sedimentation Control

Erosion control measures shall be implemented during construction of the project. These measures shall conform to the appropriate erosions/sedimentation control provisions contained in the Caltrans Standard Specifications (which are in force at the time the construction contract is awarded) and the special provisions included in the contract for the project. Such provisions shall include the preparation of a Storm Water Pollution Prevention Plan or Water Pollution Control Plan, which will describe and illustrate best management practices (BMPs).

Erosion control measures to be included in the Storm Water Pollution Prevention Plan or Water Pollution Control Plan include the following:

- To the extent practicable, activities that increase the erosion potential shall be restricted to the relatively dry summer and early fall period (i.e., June– September) to minimize the potential for rainfall to transport sediment to surface water features. If these activities must take place during the late fall, winter, or spring, temporary erosion and sediment control structures shall be in place and operational at the end of each construction day and shall be maintained until permanent erosion control structures are in place.
- Vegetation clearing and ground-disturbing activities shall be limited to the minimum area necessary for project implementation.
- Areas where woody vegetation needs to be removed shall be identified in advance of ground disturbance and shall be limited to only those areas that have been approved by the County. Within



10 days of completion of construction in those areas, weed-free mulch shall be applied to disturbed areas to reduce the potential for short-term erosion. Prior to a rain event or when there is a greater than 50 percent probability of rain within the next 24 hours as forecasted by the National Weather Service and rain is forecasted to exceed 0.5 inches, weed-free mulch shall be applied to all exposed areas at the completion of the day's activities. Soils shall not be left exposed during the rainy season.

- Suitable BMPs shall be implemented, such as placing silt fences, straw wattles, or catch basins below all construction activities at the edge of surface water features to intercept sediment before it reaches the waterway. These structures shall be installed prior to any clearing or grading activities.
- If spoil sites are used, they shall be placed where they do not drain directly into a surface water feature, if possible. If a spoil site would drain into a surface water feature, catch basins shall be constructed to intercept sediment before it reaches the feature. Spoil sites shall be graded and vegetated to reduce the potential for erosion.
- Erosion control blankets and other erosion control measures that employ monofilament netting shall be prohibited within the project area.
- Sediment control measures shall be in place prior to the onset of the rainy season and shall be monitored and maintained in good working condition until disturbed areas have been revegetated.

Conservation Measure #2 – Prevention of Accidental Spills

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

- A site-specific spill prevention plan shall be implemented if any potentially hazardous materials will be used during construction. The plan shall include the proper handling and storage of all potentially hazardous materials, as well as the proper procedures for cleaning up and reporting any spills. If necessary, containment berms shall be constructed to prevent spilled materials from reaching surface water features.
- Equipment and hazardous materials shall be stored a minimum of 50 feet away from surface water features.
- Vehicles and equipment used during construction shall receive proper and timely maintenance to reduce the potential for mechanical breakdowns leading to a spill of potentially hazardous materials. Maintenance and fueling shall be conducted in an area at least 50 feet away from surface water features or within an adequate fueling containment area.

Conservation Measure #3 – Air Quality/Dust Control

In the construction bid documents, the County's approved construction contractor shall include provisions that the contractor shall implement the following reduction measures to reduce vehicle emissions during construction, including:



- To the extent that equipment and technology is available and cost effective, the contractors shall use catalyst and filtration technologies.
- Idling time shall be limited to 5 minutes when construction equipment is not in use, unless engine manufacturer's specifications or safety considerations require more time.
- Contractors will commit to using the best available emissions control technology. The use of diesel construction equipment meeting the California Air Resources Board (CARB) 1996 or newer certification standard for off-road heavy-duty diesel engines and having Tier 4 engines will be maximized to the extent feasible. Equipment may be electrified if feasible, and gasoline-powered equipment should be substituted for diesel-powered equipment when feasible, unless alternatively fueled construction equipment can be used. If the use of all equipment with Tier 4 engine standards is not feasible, the contractor should commit to using CARB and Environmental Protection Agency-verified particulate traps, oxidation catalysts, and other appropriate controls when suitable to reduce emissions of diesel particulate matter and other pollutants during construction.

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

- All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover or vegetative ground cover.
- All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.
- All land clearing, grubbing, scraping, excavation, land leveling, grading, cut & fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.
- All loose materials transported to and from the construction site shall be covered, or effectively wetted to limit visible dust emissions, and at least 6 inches of freeboard space from the top of the container shall be maintained.
- Any topsoil removed during construction shall be stored on-site in piles no higher than 4 feet to allow development of microorganisms prior to replacing the soil in the construction area. The topsoil piles shall be clearly marked and flagged. Topsoil piles that will not immediately be used in the construction area shall be revegetated with a non-persistent erosion control mixture.
- Soil piles for backfill shall be marked and flagged separately from native topsoil stockpiles. These soil piles shall also be surrounded by silt fencing, straw wattles, or other sediment barriers or covered unless they are to be used immediately.
- Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.



Conservation Measure #4 – Prevention of Spread of Invasive Species

The following measures will be implemented to prevent the spread of invasive species as a result of the project:

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

Conservation Measure #5 – General Measures for Protection of Special-Status Wildlife Species

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

- Construction access and equipment will be located on existing roads or previously disturbed parking areas, to the extent practicable.
- Disturbance of soil, vegetation, naturally occurring debris piles (including fallen trees, woodrat nests, or dead tree snags), rocky outcrops, and wildlife burrows will be avoided or minimized to the extent possible.
- To the extent practicable, all holes or trenches will be covered at the end of each workday to prevent wildlife from becoming trapped. All holes and trenches will be inspected before each workday to facilitate the release of any trapped wildlife. A qualified biologist will be consulted if work crews are unable to safely assist in the release of trapped wildlife.
- To minimize attractants to wildlife, trash will be stored in containers that can be closed and latched or locked to prevent access by wildlife. All loose trash will be cleaned up daily.

Conservation Measure #6 – General Measures for Post-Construction Restoration

- Disturbed areas outside of the new bridge location and roadway approaches would be restored to pre-disturbance conditions, which would include grading to pre-project contours and reseeding with native grasses.
- After removal of the existing bridge, excavated areas would be filled with native soil from the new bridge excavations. Natural regeneration of vegetation would be expected along the banks following bridge removal, and plantings are not expected to be necessary.

Conservation Measure #7 – Measure for Paleontological Resources

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



Conservation Measure #8 – Wildfire Potential

The County shall include the following measure in the construction bid documents to minimize project-related potential for wildfire ignition:

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

Conservation Measure #9 – Treatment Protocol for Human Remains and Cultural Items

The County shall include the *Treatment Protocol for Handling Human Remains and Cultural Items Affiliated with the Yocha Dehe Wintun Nation* in the construction bid documents for the treatment of Native American human remains if any are found during project construction. The treatment protocol for human remains and cultural items is as follows:

The determination of Most Likely Descendant (MLD) under California Public Resources Code Section 5097.98 will be made by the Native American Heritage Commission (NAHC) upon notification to the NAHC of the discovery of said remains at a Project site. In the event that the NAHC determines that the Yocha Dehe Wintun Nation or member is the MLD, the Medical Examiner shall immediately be notified, ground disturbing activities in that location shall cease and the Tribe shall be allowed, pursuant to California Public Resources Code Section 5097.98(a), to (1) inspect the site of the discovery and (2) make determinations as to how the human remains and grave goods should be treated and disposed of with appropriate dignity.

The Tribe shall complete its inspection and make its MLD recommendation within forty-eight hours of getting access to the site. The Tribe shall have the final determination as to the disposition and treatment of human remains and grave goods. Said determination may include avoidance of the human remains, reburial on-site, or reburial on tribal or other lands that will not be disturbed in the future. If there are human remains present that have been identified as Native American, all work will cease for a period of up to 30 days in accordance with Federal Law.

All cultural items, including ceremonial items and archeological items, which may be found at a Project site should be turned over to the Tribe for appropriate treatment, unless otherwise ordered by a court or agency of competent jurisdiction.

If additional significant sites are discovered during project construction, such sites will be subjected to further archeological and cultural significance evaluation by the Project Proponent, the Lead Agency, and the Tribe to determine if additional mitigation measures are necessary to treat sites in a culturally appropriate manner consistent with CEQA requirements for mitigation of impacts to cultural resources.



5.8 MITIGATION MEASURES

Mitigation Measure #1 – Valley Elderberry Longhorn Beetle (Yolo HCP/NCCP AMM 12: Minimize Take and Adverse Effects on Habitat of Valley Elderberry Longhorn Beetle)

The following avoidance and minimization measures will be implemented to minimize the potential for adverse impacts on VELB to the maximum extent possible:

- The two directly impacted elderberry shrubs (see Figure 3) will be mitigated for using the *USFWS Conservation Guidelines for the Valley Elderberry Longhorn Beetle* (Service 1999) and Avoidance and Minimization Measure 12, *Minimize Take and Adverse Effects on Habitat of Valley Elderberry Longhorn Beetle*, as described in the Yolo HCP/NCCP (Appendix C of the report). The two elderberry shrubs will be transplanted to a USFWS and Yolo Habitat Conservancy (Conservancy)-approved beetle conservation bank in accordance with the guidelines.
- The one elderberry shrub not being directly impacted by the proposed project's activities will be flagged and fenced with a buffer of 20 feet from the dripline. Signage will be posted indicating the need for avoidance. Dust control measures will be implemented to minimize impacts to this elderberry shrub.
- A USFWS- approved biologist will conduct environmental awareness training for all individuals that will be working on the proposed project before any work begins. The environmental awareness training will highlight the habitat needs of the beetle and the location of the on-site protection area.
- A USFWS-approved biologist will conduct a pre- and post-construction survey of the one elderberry shrub not directly impacted as a result of the proposed project. The pre-construction survey will document the conditions of the elderberry shrub prior to construction activities and document compliance with mitigation measures. The post-construction survey will verify that no additional impacts to the elderberry shrub took place due to the proposed project.

Mitigation Measure #2 – Foothill Yellow-Legged Frog

The following measures shall be implemented during construction:

- A qualified biologist shall conduct a survey within 5 day prior to the initiation of in-channel construction activities for the species to confirm its status (i.e., presence/absence) within the project area. Should foothill yellow-legged frogs be identified during implementation of the project, the County may need to apply for an Incidental Take Permit (ITP) to comply with the California Endangered Species Act (CESA) if the species at the time is considered a candidate or listed species under CESA.
- A qualified biologist, knowledgeable of foothill yellow-legged frogs, will brief construction personnel during the environmental awareness training in regard to the species habitat requirements, life history, and distinguishing morphological characteristics.



- To avoid potential injury or mortality to foothill yellow-legged frogs using vegetated areas for cover along Cache Creek, initial vegetation clearing (i.e., removal of small trees, shrubs, brush, and tall dense grasses) along Cache Creek will be done manually using hand tools (e.g., chainsaw, lopper, weed whacker). The vegetation will be cut to ground level and be removed from the work area by hand, to the extent feasible.
- The outside limits of the work area will be staked, flagged, and/or signed to avoid encroachment by equipment construction crews outside of the project boundaries. The number of access routes, and the total area of impacts will be limited to the minimum necessary to achieve the project goal. This goal includes locating access routes and construction areas outside of the creek to the maximum extent practicable. The demarcated areas will confine access routes and construction areas to the minimum area necessary to complete construction and minimize the impact on natural habitats in the project area.
- Upon completion of construction activities for the winter, any diversions or barriers to flow will be removed in a manner that would allow flow to resume with the least disturbance to the substrate. Alteration of the streambed will be minimized to the maximum extent possible.

Mitigation Measure #3 – Western Pond Turtle (Yolo HCP/NCCP AMM 14: Minimize Take and Adverse Effects on Habitat of Western Pond Turtle)

The following measures will reduce potential impacts to western pond turtles.

- A pre-construction survey for western pond turtle shall be conducted concurrently by a qualified biologist when performing the survey for foothill yellow-legged frog. If a western pond turtle nest is identified during the survey, the biologist shall flag the site and determine if construction activities can avoid affecting the nest. If the nest cannot be avoided, it will be excavated and re-buried at a suitable location outside of the construction impact zone by a qualified biologist. The County will inform CDFW if the nest cannot be avoided and such an activity must occur.
- If a qualified biologist determines that there is a moderate to high likelihood of western pond turtle nests within the disturbance area, 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.
- Western pond turtle shall be included in the workers environmental awareness training presented to construction personnel.

Mitigation Measure #4 – Special-Status Bird Species, Migratory Birds, and Raptors (Yolo HCP/NCCP AMMs 16, 18, 20, and 21: Minimize Take and Adverse Effects on Habitat of Special-Status Bird Species)

The project has been designed to minimize impacts on native habitats, to the maximum extent practicable. In addition to the conservation measures that have been incorporated into the project (see Section 2.6), the following measures will be implemented to further reduce the potential for impacts on special-status and migratory birds and raptors that may nest in or near the project area:



- Because construction activities cannot avoid the breeding season for native birds, the County will retain a qualified biologist to conduct a pre-construction survey of the project area and within an appropriate distance from the work limits, as access is available (e.g., 0.25 mile for Swainson’s hawk, 250 feet for other raptors, and 100 feet for passerines). The pre-construction survey will be timed between February 15 and September 15, but no more than 14 days prior to the implementation of construction activities (including staging and equipment access). In accordance with the Yolo HCP/NCCP, the results of the survey will be submitted to the Conservancy and CDFW.
- If active nests are found during the pre-construction survey, the County will coordinate with CDFW and USFWS on additional protection measures, such as establishment of a buffer around the nest tree. No construction activity will be conducted within this zone during the nesting season (generally February through September) or until such time that the biologist determines that the nest or burrow is no longer active. The buffer zone will be marked with flagging, stakes, or other means to mark the boundary. All construction personnel will be notified of the existence of the buffer zone and shall avoid entering the buffer zone during the nesting season. If project related activities within the temporary nest disturbance buffer are determined to be necessary during the nesting season, then the qualified biologist will monitor the nest and will, along with the project proponent, consult with CDFW to determine the best course of action necessary to avoid nest abandonment or take of individuals. Work may be allowed only to proceed within the temporary nest disturbance buffer if Swainson’s hawk or white-tailed kite are not exhibiting agitated behavior, such as defensive flights at intruders, getting up from a brooding position, or flying off the nest, and only with the agreement of CDFW and USFWS. The designated on-site biologist/monitor shall be on-site daily while construction-related activities are taking place within the 1,320-foot buffer and shall have the authority to stop work if raptors are exhibiting agitated behavior.
- To deter cliff swallows from nesting and bats from roosting under the existing bridge, the County will install an exclusionary device (e.g., netting) around the bridge prior to the initiation of the avian breeding season (i.e., before February 15) during the same year as bridge removal is proposed and after a qualified biologist has determined no nesting activity or bats are present within the area to be netted. The exclusionary device will remain in place until August 15 or until the bridge is demolished. The exclusionary device will be anchored such that swallows cannot attach their nests to the structure through gaps and bats cannot reach suitable night roosting habitat at the top of the bridge abutments. If swallows begin building nests on the structure after installation of the exclusionary device, the County will coordinate with CDFW and will remove the nesting material in the presence of a qualified biologist to ensure the destruction of an active nest does not occur. Bridge removal may be delayed until the nests are no longer active.

Mitigation Measure #5 – Ring-tailed Cat

The project has been designed to minimize impacts on native habitats, to the maximum extent practicable. In addition to the standard construction practices that have been incorporated into the project, the following measures are recommended to ensure the potential for direct and indirect impacts on ring-tailed cat are minimized to the greatest extent feasible:



- Given that work will occur during the natal denning period for ring-tailed cat (March 1 to June 30), the County will retain a qualified biologist to conduct a pre-construction survey concurrently with the foothill yellow-legged frog and western pond turtle surveys. If an active denning location is identified during the survey, the County will coordinate with a qualified biologist and CDFW, as necessary, on additional protection measures.
- The environmental awareness training will include information on ring-tailed cat.
- If ring-tailed cat is encountered in the project area during construction, work will stop, and the individual will be allowed to freely egress the work area.

Mitigation Measure #6 – Pallid Bat and Western Red Bat

The project has been designed to minimize impacts on native habitats, to the maximum extent practicable. In addition to the standard construction practices that have been incorporated into the project, the following measures will be implemented to further reduce the potential for impacts on special status bats:

- In conjunction with the pre-construction nesting bird survey, a qualified biologist will conduct a reconnaissance-level pre-construction survey of suitable roosting locations in the project area. The pre-construction survey will be performed to determine if the existing vegetation or bridge is being used by bats as a roosting location.
- To deter bats from roosting under the existing bridge, the County will install an exclusionary device (e.g., netting) around the bridge prior to the initiation of the avian breeding season (i.e., before February 15) during the same year as bridge removal is proposed and after a qualified biologist has determined no bats are present within the area to be netted.
- If the biologist finds evidence of bat roosts, the biologist will attempt to determine which species are present, which features are being used, and for which roosting purpose. If it is determined that roosting bats are not present or are only using the area as a night roost (i.e., no young are present in the roost), no further avoidance and minimizations measures are necessary.
- If western red bat or pallid bat day roost or maternity roosts are identified during the survey, the County will coordinate with CDFW to determine the appropriate method to remove the roosting structure. Removal of the existing bridge and vegetation would need to be scheduled before the birthing season for bats (i.e., prior to May 1) or after young bats are able to fly (i.e., after August 31). Removal of active roosts should be conducted in a manner that allows the bats the best opportunity to leave during darker hours to increase their chance of finding new roosts with minimum exposure to predation during daylight.



Mitigation Measure #7 – Waters of the United States (Yolo HCP/NCCP AMMs 1, 3, 8, 9, and 10: Establish Buffers around Sensitive Natural Communities; Confine and Delineate Work Area to Avoid and Minimize Effects of Construction Staging Areas and Temporary Work Areas; Avoid and Minimize Effects on Wetlands and Waters)

The following measures shall be implemented to avoid or minimize the potential for project-related impacts on waters of the United States:

- The County will comply with the terms of a Clean Water Act Section 404 permit issued by the Corps and Section 401 water quality certification issued by the RWQCB for activities involving the discharge of fill material into Cache Creek or the riparian wetlands. For activities in and along Cache Creek, the County will also comply with terms of a Streambed Alteration Agreement with the CDFW (if determined necessary by the CDFW). The actual project impacts will be calculated once final designs are available and during the permit application process. Prior to any discharge of dredged or fill material into Cache Creek, the perennial stream, or the riparian wetlands, the required permits and authorizations will be obtained from the respective agencies. All terms and conditions of the required permits and authorizations will be implemented.
- All waters of the United States temporarily affected by project construction will be restored as close as practicable to their original contours and conditions.
- The County will design the roadway improvements to avoid direct and indirect impacts on the wetlands, to the greatest extent practicable, and designate all wetlands outside the area of permanent impact as environmentally sensitive areas (refer to Figure 3). These areas will be identified on construction drawings and demarcated in the field with flagging and/or signs identifying the area as off limits to all personnel, equipment, and ground-disturbing activities. In addition, water quality BMPs will be installed around the wetlands (outside the wetland boundaries) in a manner that prevents water, sediment, and chemicals from draining into the features, and all staging, storage, stockpile areas, and off-road travel routes will be located as far as practicable away from the wetlands.

Mitigation Measure #8 – Cultural Resources

Per Caltrans Exhibit 5.1 in Volume 2 of the Standard Environmental Reference, it is Caltrans' policy to avoid cultural resources whenever possible. If buried cultural materials are encountered during construction, it is Caltrans' policy that work stop in that area until a qualified archaeologist can evaluate the nature and significance of the find."

Mitigation Measure #9 – Historic Properties

Per the Memorandum of Agreement between Caltrans and the State Historic Preservation Officer (SHPO), the County will implement the following:



Recordation

- Record and document the Rumsey bridge following the standards of the Historic American Engineering Record
- Locate historic construction drawings of the Rumsey bridge
- Complete a written report describing the physical characteristics of the Rumsey bridge, construction history and details its significance under National Register criteria
- Provide copies to Caltrans, SHPO, Yocha Dehe Wintun Nation, Yolo County Historical Society, Esparto High School, Yolo County Archives, and the Northwest Information Center at Sonoma State University

Interpretation

- Design, produce and install a permanent metal plaque on a concrete or boulder mount that provides a brief history of the Rumsey Bridge
- Prepare a booklet on the Rumsey bridge containing historic photographs and/or drawings, and text describing the bridge (design and construction) and use history; property type; significance character-defining features; and its historic significance and background (including photographs and descriptions of previous bridge crossings at this location). Copies will be distributed to local libraries, local historical societies, organizations and museums.

Mitigation Measure #10 – Human Remains

If human remains and related items are discovered during project activities, all activities near the find shall be suspended. Remains will be treated in accordance with the requirements of Health and Safety Code Section 7050.5(b). If pursuant to of Health and Safety Code Section 7050.5(c) the coroner determines that the human remains are or may be those of a Native American, then the discovery shall be treated in accordance with the provisions of Public Resources Code Sections 5097.98 (a)-(d). The County Coroner shall be contacted if human remains are discovered. The County Coroner shall have two working days to inspect the remains after receiving notification. During this time, all remains, associated soils, and artifacts shall remain in situ and/or on site and shall be protected from public viewing. This may include restricting access to the discovery site and the need to hire 24-hour security.

Mitigation Measure #11 – Paleontological Resources

If paleontological resources (i.e., fossils) are discovered during project construction, all work within 100 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.

Mitigation Measure #12 – Asbestos

Prior to demolishing the existing bridge, a Certified Asbestos Consultant (CAC) will assess the presence of asbestos in building materials. The CAC assessment will be submitted to the YSAQMD and will be



included in the written notification of demolition of structures or renovation operations at least 10 business days prior to commencing work, regardless of the presence or absence of asbestos in building materials.

Mitigation Measure #13 – Maintain and equip construction equipment with noise control devices.

The County shall ensure that the construction contractor implements the following mitigation measures during construction activities:

- Construction activities shall be limited to the hours of 7 a.m. to 7 p.m. when activities occur within 500 feet of a residential receptor or other noise-sensitive land use.
- All construction equipment shall be properly maintained and equipped with noise control, such as mufflers, in accordance with manufacturers' specifications.
- The simultaneous operation of multiple construction equipment within 100 feet of residences shall be prohibited. Equipment not in use shall not be left idling for more than 5 minutes when not in use.

Mitigation Measure #14 – Coordinate with residences to minimize noise disturbance.

The County will work with the construction contractor and nearby residents to minimize disturbance to occupied residences. Before construction near noise-sensitive receptors, the County shall provide written notification to potentially affected receptors, identifying the type, duration, and frequency of construction operations. Notification materials will also identify a mechanism for residents to register noise-related complaints with the County; the County shall consider noise-related concerns on a case-by-case basis, but at a minimum will implement a 7 p.m. to 7 a.m. noise curfew in the event of complaint (in addition to the requirements of Mitigation Measure #13).



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