

**Initial Study/
Mitigated Negative Declaration**

for the

**Bucks Bar Road at North Fork Cosumnes
River - Bridge (No. 25C0003)
Replacement Project**

July 2015

**El Dorado County
Community Development Agency
Transportation Division
2850 Fairlane Court
Placerville, CA 95667**

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1. Project Information

1. Project Title: Bucks Bar Road at North Fork Cosumnes River - Bridge (No. 25C0003) Replacement Project
2. Lead Agency Name and Address: El Dorado County Community Development Agency, Transportation Division 2850 Fairlane Court Placerville, CA 95667
3. Contact Person and Phone Number: Ms. Janet Postlewait, Principal Planner 530/ 621-5993 janet.postlewait@edcgov.us
4. Project Location: The Bucks Bar Road Bridge Replacement Project is located along Bucks Bar Road, approximately 1 mile northwest of the community of Somerset in the El Dorado County. Bucks Bar Road is an east-west, two-lane, off-system rural major collector connecting Pleasant Valley Road with Mount Aukum Road. The Project occurs on the Camino USGS topographic quad (T9N, R12E, Sections 6 and 7 Mt. Diablo Base and Meridian). The Project area includes portions of Bucks Bar Road, the North Fork Cosumnes River, mixed live oak/ lower montane conifer forest, and alder riparian forest. Adjacent land uses include rural residential.
5. Description of Project: The El Dorado County Community Development Agency, Transportation Division (Transportation) proposes to replace the existing Bucks Bar Road Bridge over the North Fork Cosumnes River. The existing bridge is located along Bucks Bar Road approximately 1.2 miles north of Mount Aukum Road. Transportation will use Highway Bridge Program (HBP) funds to replace the existing structure to improve roadway safety and comply with the American Association of State Highway and Transportation Officials (AASHTO) design guidelines and El Dorado County standards. The existing one lane reinforced concrete deck slab bridge supported by a reinforced concrete spandrel arch, spans approximately 70 (feet) ft with a width of approximately 18.5 ft., was built in 1941. The 2012 Average Daily Traffic (ADT) at the bridge is approximately 4,500 vehicles per day and is forecast to be 8,696 in 2032 (Caltrans 2013). The current width only accommodates a single lane which forces southbound vehicles to yield to northbound travelers until the bridge is clear. The Caltrans Local Agency Bridge List classifies the bridge as functionally obsolete with a sufficiency rating of 71.4. The bridge railings, transitions, approach rails, and approach guardrails do not meet current standards. The County evaluated whether the bridge could be rehabilitated. The Final Feasibility Study Report, after evaluating multiple factors, recommended the replacement of the

bridge to provide a safer roadway approach, better hydraulics, a longer term solution, and the best overall value.

The proposed replacement bridge will be an approximately 210 ft long, cast-in-place (CIP) prestressed (PS) box girder bridge. The superstructure would be supported on seat type abutments. The north abutment would be a cantilever abutment founded on a spread footing embedded into the underlying rock. The south abutment would be a seat type abutment founded on two large diameter CIDH piles with rock sockets. The bridge alignment is offset north, or upstream, of the existing alignment. The offset alignment allows the bridge to remain open during construction satisfying one of the major public concerns identified during community outreach.

The road will remain open during construction except for minor delays to traffic during the installation of the shoring and during construction of the roadway conforms. Chapter 3 provides a more detailed project description.

6. General plan designation:

APN 093-131-07: Commercial

APN 093-120-32: Natural Resources, 1 DU/ 40ac

APN 093-131-05, -12, -13, -15, -16, -33, and -34: Low Density Residential 1 DU/ 5ac

7. Zoning:

APN 093-131-07: Estate Residential Five –Acre and Planned Commercial

APN 093-120-32, and -33: Residential Agriculture 20 acre

APN 093-131-05 and -34: Estate Residential Five –Acre

APN 093-131-12, -13, -15, and -16: Estate Residential Ten –Acre

8. Surrounding Land Uses and Setting:

Adjacent land uses include rural residential. There are recreational uses of the North Fork of the Cosumnes River, but none are designated within the project limits.

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

- Caltrans — National Environmental Policy Act (NEPA) Categorical Exclusion
- El Dorado County Air Quality Management District — Fugitive Dust Plan Approval
- Corps of Engineers Section 404 Clean Water Act Nationwide Permit
- Central Valley Regional Water Quality Control Board Section 401 Water Quality Certification
- Central Valley Regional Water Quality Control Board — Section 402 NPDES
- California Department of Fish and Wildlife Section 1600 Streambed Alteration Agreement

2. Introduction

The El Dorado County Community Development Agency, Transportation Division, (Transportation) intends to replace the existing Bucks Bar Road Bridge over the North Fork Cosumnes River located in unincorporated El Dorado County. Transportation will use Highway Bridge Program (HBP) funds to replace the existing structure to improve roadway safety and comply with the American Association of State Highway and Transportation Officials (AASHTO) design guidelines and El Dorado County standards.

El Dorado County is the local lead agency and prepared this Initial Study to consider the significance of potential project impacts pursuant to the California Environmental Quality Act (CEQA) of 1970, as amended (Public Resources Code, Section 21000, et seq.). This Initial Study was prepared in accordance with the State CEQA Guidelines (14 California Administrative Code, Section 14000 et seq.).

Based on the results of this Initial Study, the County has determined that the Project would have less than significant impacts on the environment with the incorporation of mitigation measures. The County may approve the Project with the certification of a Mitigated Negative Declaration (MND).

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

- **Section 3, Project Description:** Provides a detailed description of the proposed Project;
- **Section 4, Initial Study Checklist and Supporting Documentation:** Provides CEQA Initial Study Resource impact checklists and supporting documentation. Identifies the thresholds of significance, evaluates potential impacts, and describes mitigation necessary to reduce impact significance;
- **Section 5, Initial Study Findings:** Provides a determination of the County's CEQA findings;
- **Section 6, Supporting Information Sources:** Identifies the personnel responsible for the preparation of this document and provides a list of the references cited throughout the document.
- **Appendix A, Mitigation Monitoring and Reporting Plan:** Contains the Mitigation Monitoring and Reporting Plan prepared for the proposed project. The Mitigation Monitoring and Reporting Plan includes a list of required mitigation measures and includes information regarding the County's policies and procedures for implementation and monitoring of the mitigation measures.

3. Project Description

The El Dorado County Community Development Agency, Transportation Division (Transportation) proposes to replace the existing Bucks Bar Road Bridge over the North Fork Cosumnes River. The existing bridge is located along Bucks Bar Road approximately 1.2 miles north of Mount Aukum Road. Transportation will use Highway Bridge Program (HBP) funds to replace the existing structure to improve roadway safety and comply with the American Association of State Highway and Transportation Officials (AASHTO) design guidelines and El Dorado County standards.

3.1 Project History

Transportation applied for and obtained a HBP grant to rehabilitate or replace the existing bridge. Several rehabilitation options were evaluated that included widening the bridge with a second lane. In addition, several replacement options were evaluated using various proposed design speeds.

3.1.1 Feasibility Study

A Final Feasibility Study Report was prepared to develop sufficient information for the County to select between widening or replacement alternatives for the bridge based on a conditions assessment, live load capacity, seismic capacity, life cycle cost, hydraulic capacity, right-of-way impacts, constructability, duration of construction, community impacts, and public sentiment (Dokken Engineering 2010).

The Final Feasibility Study Report included scanning the existing bridge to verify the presence and location of reinforcement compared to the as-built engineering drawings (Dokken Engineering 2010). Concrete coring was conducted followed by compression tests of the samples to determine the strength of the existing concrete. The condition assessment concludes that the concrete quality, structure type, and service load details of the bridge make it eligible for widening. The bridge was then analyzed to determine if it could satisfy current seismic design requirements and current vehicular loading. The deck was determined to be capable of handling HS-20 live loading, including the additional lane that would be included as part of the widening. Several seismic vulnerabilities were identified. The arch ribs, spandrel columns, and north thrust block foundation would require retrofitting due to inadequate reinforcement and rebar cover. Even with the retrofit, the existing structure would not be able to sustain a maximum credible seismic event without major damage.

The Final Feasibility Study Report determined that the widening alternative did not address the hydraulic performance of the existing bridge (Dokken Engineering 2010). River flow is restricted at the existing bridge and the existing bridge affects the natural flow conditions of the river both up and downstream. The Location Hydraulic Study estimates that, during the 100-year event, no freeboard between the water surface elevation and the existing soffit (WRECO 2009). The model showed a hydraulic jump phenomenon immediately downstream of the existing bridge. The velocity of water

downstream of the bridge is higher than upstream and the water surface elevation upstream of the bridge was six feet higher than downstream.

A temporary road closure and detour was proposed for either the widening or replacement alternatives considered in the Final Feasibility Study Report. An eight to twelve months road closure would have been required to allow the contractor to complete the entire project in a single construction season. Staged construction would require two construction seasons and would allow the bridge to remain open during construction. Public sentiment received during meetings and outreach events indicate that a long-duration road closure would have a greater community impact than keeping traffic open during construction.

A Supplemental Feasibility Study Report was prepared by El Dorado County and T.Y. Lin in April 2015. Based on the information presented in the previously approved Final Feasibility Study Report (Dokken Engineering 2010) and the additional work performed to develop the Supplemental Feasibility Study Report, a single span cast-in-place prestressed concrete box girder bridge replacement is the preferred alternative. The single span alternative, minimizes impacts to the river, spans environmental cultural sites, satisfies freeboard requirements, minimizes impacts to the property owner on the north, provides familiar construction and, although the bridge construction cost is slightly more expensive, it is cost competitive compared to the other span arrangements considered. With the proposed offset alignment, traffic will be maintained on the existing bridge during construction of the bridge replacement.

3.1.2 Project Outreach

Transportation held several public meetings and outreach events to inform the public about the need for the project, different engineering solutions, and project impacts. The public expressed concern about the community impacts of a long duration road closure. The public comments and responses to the presentations resulted in some early alternatives being dropped from consideration at the direction of the Board of Supervisors. The following public meetings and outreach events were held:

6 January 2010: A public meeting was held to obtain input from the citizens on the topics of replacement versus widening, temporary detour and structure type. A total of 50 residents were in attendance.

2 March 2011: The Fair Play Winery Association hosted a meeting to discuss the Project. A total of 13 wineries were in attendance.

27 April 2011: Matt Smeltzer, P.E., Transportation, provided information to the Agricultural Commission's during its regularly scheduled meeting held on April 13, 2011 regarding the Bucks Bar Bridge rehabilitation project. There was discussion of the three alternative plans as presented by Mr. Smeltzer. After consideration of the numerous public comments in support of Alternatives 2 or 3 over Alternative 1, the Commission agreed that Alternative 3 would be a better approach and in the best

interest of the agricultural businesses in the South County and made a motion in support of Alternative 3.

30 January 2014: A public informational meeting was held at the Pioneer Park Community Center in the Community of Somerset. A slideshow presentation was given that presented that discussed, facts about current condition of existing bridge structure, funding, public concerns relating to detour options, and the project schedule.

4 February 2014: Staff presented three design alternatives at the February 2014 Board of Supervisor's meeting. The three alignment alternatives were based on design speeds of 30 mph, 35 mph, and 40 mph. The net cost for the three design speeds did not include preliminary engineering, the cost of the roadway construction, or construction management costs. The estimate for the 30 and 35 mph alternatives include 1.8 million detour cost in addition to the bridge construction and right of way cost.

The 30 mph alternative would keep the bridge as close to its original alignment as possible. It minimizes right-of-way take but requires a design exception to address roadway geometrics which do not satisfy current AASHTO design requirements. Due to the long-term road closure and detour, it was more expensive compared to the 35 mph and 40 mph alternatives. The 35 mph alternative had slightly more right-of-way take than the 30 mph alternative. The construction staging for the 35 mph alternative was considered difficult and would also result in a retaining wall within 12 feet of the cabin, if the cabin was able to be retained. The 35 mph alternative was estimated at \$3 million dollars, considerably less than the estimated cost of \$4 million dollars for the 30 mph alternative. The 40 mph alternative had the most right-of-way take, required removal of the cabin, but minimizes public traffic disruption, avoids a long-term detour and minimizes design exceptions. The 40 mph alternative had a construction cost estimate of \$2.7 million, slightly less than the 35 mph alternative. The 40 mph alternative bridge cost was estimated at \$2.5 million with \$200,000 for right-of-way.

As a result of the February 2014 presentation, the Board directed staff to:

- Keep the existing bridge open during construction,
- Confirm funding of alternatives,
- Consider design exceptions, and
- Explore reducing the impact to property owners.

25 March 2014: A presentation was made to the Board of Supervisors (BOS) providing additional information regarding the replacement alignments evaluated for the Project. The BOS directed Staff to:

- Explore variations of Alternative 3 (40 mph alignment); and
- Work with property owners to protect the archaeological, natural and property rights associated with the land.

23 September 2014: An outreach meeting was held at the project sites with members of various Native American Tribes to provide a Project overview and receive input regarding tribal concerns.

16 March 2015: A second outreach meeting was held at the project sites with members of various Native American Tribes to:

- Review updated project description & construction footprint;
- Review design modifications to minimize impacts cultural features;
- Review results of the Extended Phase I (XPI) investigation;
- Discuss potential impacts to specific cultural features; and
- Discuss plan to further minimize/protect cultural features during construction.

3.1.3 Need and Purpose/ Project Objective

Need

The existing bridge is a one lane bridge on a two lane road. The current width only accommodates a single lane which forces southbound vehicles to yield to northbound travelers until the bridge is clear. The Caltrans Local Agency Bridge List classifies the bridge as functionally obsolete with a sufficiency rating of 71.4. The bridge railings, transitions, approach rails, and approach guardrails do not meet current standards. The June 2013 bridge inspection indicates that the deck geometry is ‘basically intolerable requiring high priority of replacement’. The existing bridge does not pass the 100-yr flows and was observed being overtopped during a major storm in 1997.

The bridge is a reinforced concrete deck slab bridge supported by a reinforced concrete spandrel arch approximately 70 (feet) ft long and approximately 18.5 ft wide. The National Bridge Inventory and the Caltrans Bridge Inventory indicate a construction date of 1940. The as-built plans and a newspaper article state that the bridge was built in 1941. Bucks Bar Road is an east-west, two-lane, off-system rural major collector connecting Pleasant Valley Road with Mount Aukum Road near the community of Somerset. The 2012 Average Daily Traffic (ADT) at the bridge is approximately 4,500 vehicles per day and is forecast to be 8,696 in 2032 (Caltrans 2013).

Bucks Bar Road Bridge is located at approximate post mile (PM) 1.22. The Accident Site Analysis Summary for Bucks Bar Road between PM1.0 and PM1.4 from January 1, 1992 to June 3, 2015 reports 44 accidents with 19 injuries and no fatalities (El Dorado County 2015). The Accident Site Analysis Summary was then reviewed for PM 1.22 (the bridge) and approximately two hundred feet on either side of the bridge (PM 1.19 and 1.27). Of the 44 accidents between January 1992 and June 2015, 30 accidents were reported at the bridge or within two hundred feet (between PM 1.19 and 1.27). The higher rate of accidents at the bridge and within 200 feet of the bridge compared to within 1,050 feet of the bridge may be attributable to the single lane bridge on a two lane road, requiring vehicles to stop and/or yield.

Purpose and Objectives

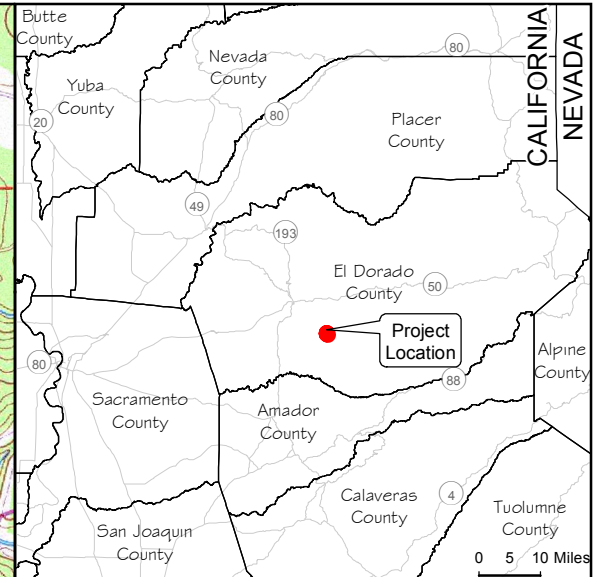
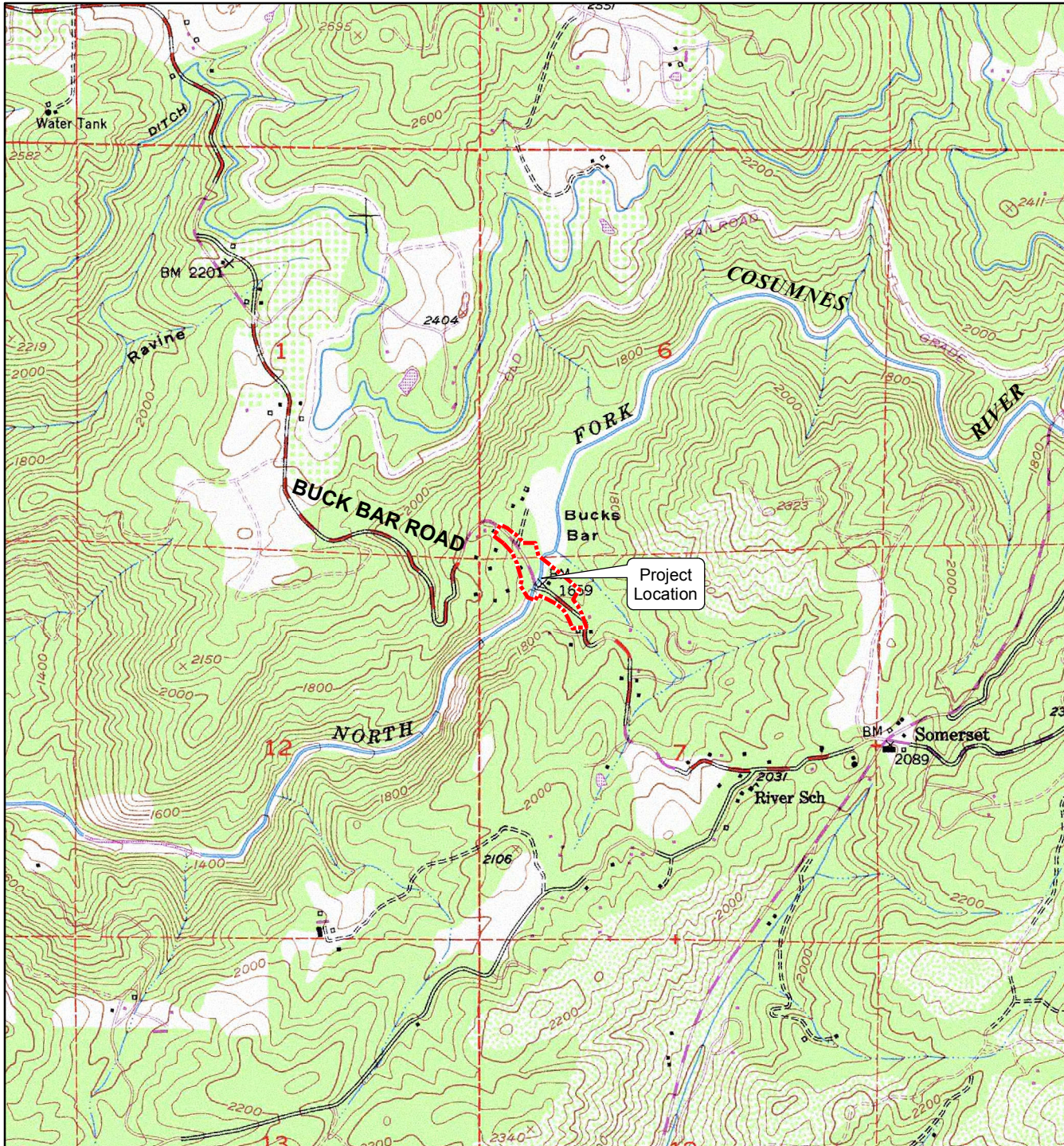
- Improve roadway safety,
- Provide a bridge that meets hydraulic flow requirements,
- Keep Bucks Bar Road open during construction, and

- Comply with the American Association of State Highway and Transportation Officials (AASHTO) design guidelines and El Dorado County standards.

3.2 Project Description

3.2.1 Location

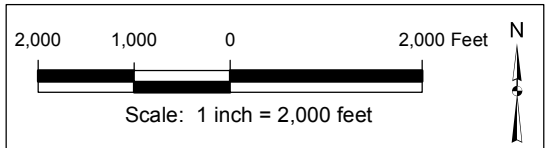
The Bucks Bar Road Bridge Replacement Project is located along Bucks Bar Road approximately one mile northwest of the community of Somerset in southern El Dorado County (Figures 1 and 2). The Project occurs on the Camino USGS topographic quad (T9N, R12E, Sections 6 and 7 Mt. Diablo Base and Meridian).



Buck Bar Road Bridge (25C-0003)
 over North Fork Cosumnes River
 Replacement Project
 El Dorado County, CA
 5 February 2014

Figure 1. Location Map

 Project Location




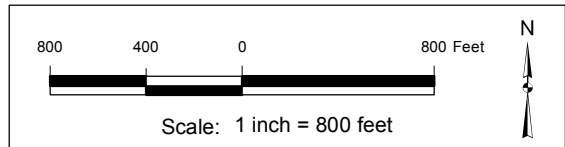
Camino, CA (Revised 1973)
 USGS 7.5' Quadrangle DRG
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Buck Bar Road Bridge (25C-0003)
 over North Fork Cosumnes River
 Replacement Project
 El Dorado County, CA
 5 February 2014

-  Biological Study Area
-  NHD Flowlines



Aerial Photograph: 14 August 2011
 UC-G Imagery, US-CA-Placerville, Microsoft
 ESRI ArcGIS Basemap Layer

Figure 2. Aerial Photograph

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3.2.2 Proposed Build Alternatives

A Caltrans Structure Type Selection Report, included in the Supplemental Feasibility Study Report (T.Y. Lin 2015) for this project was prepared by T.Y. Lin International that evaluated three replacement alternatives. The report concludes that the preferred alternative is Alternative A, a cast-in-place (CIP) prestressed (PS) single span concrete box girder bridge. The preferred alternative will improve roadway safety and be consistent with American Association of State Highway and Transportation Officials (AASHTO) design guidelines. It satisfies all hydraulic freeboard requirements and minimizes impacts to the river, cultural resources, and impacts to the property owner on the north (Figures 3 and 4).

No Project Alternative

Under the No Project Alternative, the existing bridge would remain and would not comply with current design standards and safety codes. The Caltrans designation of Functionally Obsolete would remain unchanged.

Alternative A - CIP/PS Single Span Box Girder

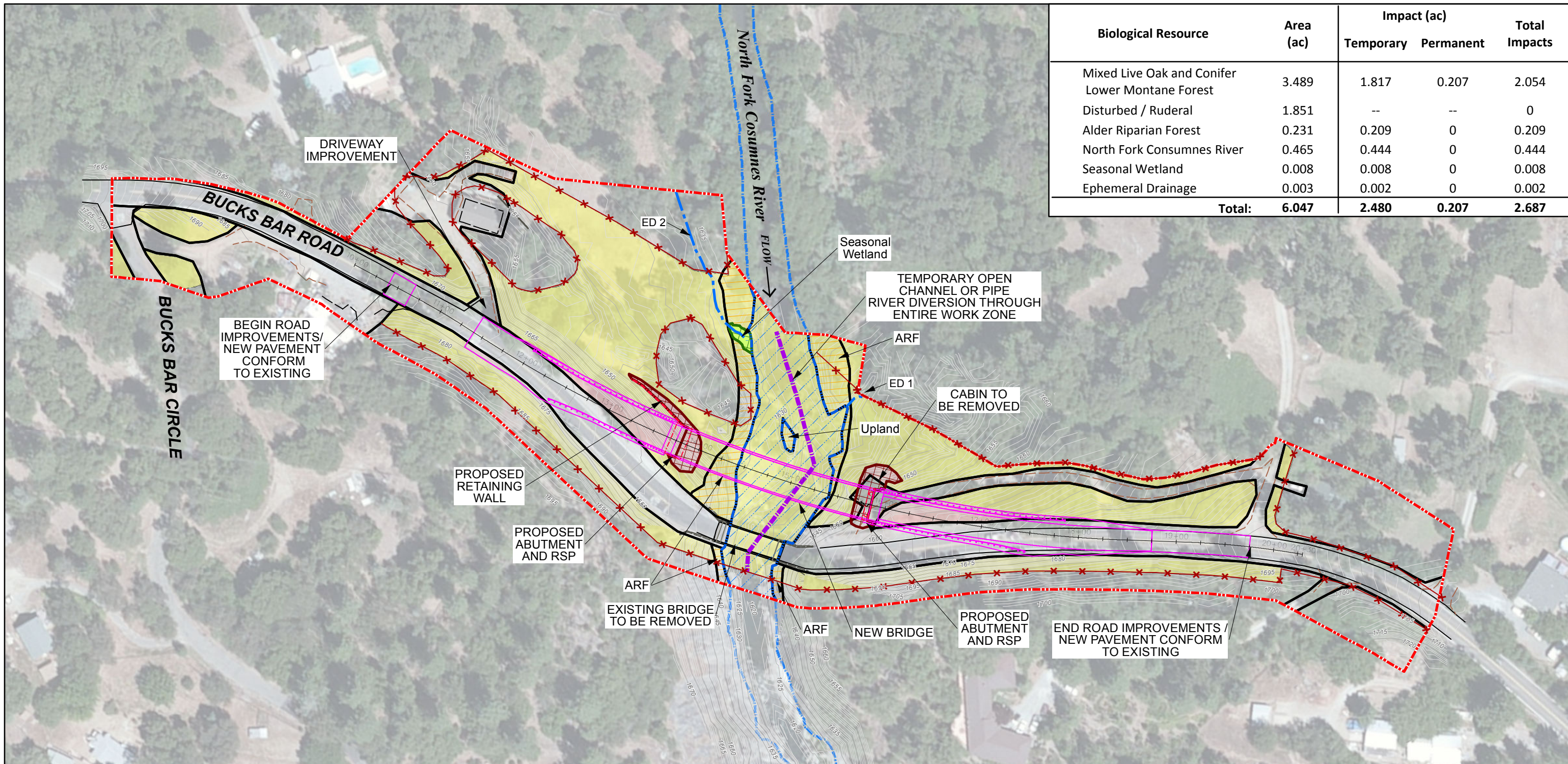
The cast-in-place (CIP) prestressed (PS) box girder is a familiar construction method to most California bridge builders. This would result in cost competitive bidding and should minimize issues during construction. The north abutment was located in order to minimize impacts to the existing trail and cultural resources on the northern side of the river.

The proposed 210 ft long single span alternative does not require any permanent supports below the ordinary high water mark of the North Fork Cosumnes River. The superstructure would be supported on seat type abutments. The north abutment would be a cantilever abutment founded on a spread footing embedded into the underlying rock. The south abutment would be a seat type abutment founded on two large diameter CIDH piles with rock sockets. The Project may require the placement of rock slope protection (RSP) at the new bridge abutments.

The single span alternative will have a structure depth of 9 ft-6 inches. To minimize the visual impacts of a deep structure, the exterior webs have been sloped. The shadow line is pushed down the edge of the bridge and has the effect of visually minimizing the structure depth.

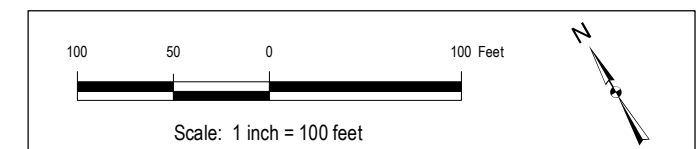
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Biological Resource	Area (ac)	Impact (ac)		Total Impacts
		Temporary	Permanent	
Mixed Live Oak and Conifer Lower Montane Forest	3.489	1.817	0.207	2.054
Disturbed / Ruderal	1.851	--	--	0
Alder Riparian Forest	0.231	0.209	0	0.209
North Fork Cosumnes River	0.465	0.444	0	0.444
Seasonal Wetland	0.008	0.008	0	0.008
Ephemeral Drainage	0.003	0.002	0	0.002
Total:	6.047	2.480	0.207	2.687



Bucks Bar Road Bridge (25C-0003)
 over North Fork Cosumnes River
 Replacement Project
 El Dorado County, CA
 7 May 2015

- Biological Study Area (BSA)
- North Fork Cosumnes River
- Ephemeral Drainages (ED)
- Seasonal Wetland
- Biological Community Boundary
- Alder Riparian Forest (ARF)
- Road and Bridge Improvements
- Proposed Abutment
- Proposed Rock Slope Protect (RSP)
- Proposed ESA Fencing
- Open Channel or Pipe Diversion through Work Zone
- Permanent Impact
- Temporary Impact



Aerial Photo: 14 Aug. 2011, UC-G Microsoft Imagery,
 ESRI Arcmap basemap service layer

Figure 3.
 Proposed Project Map

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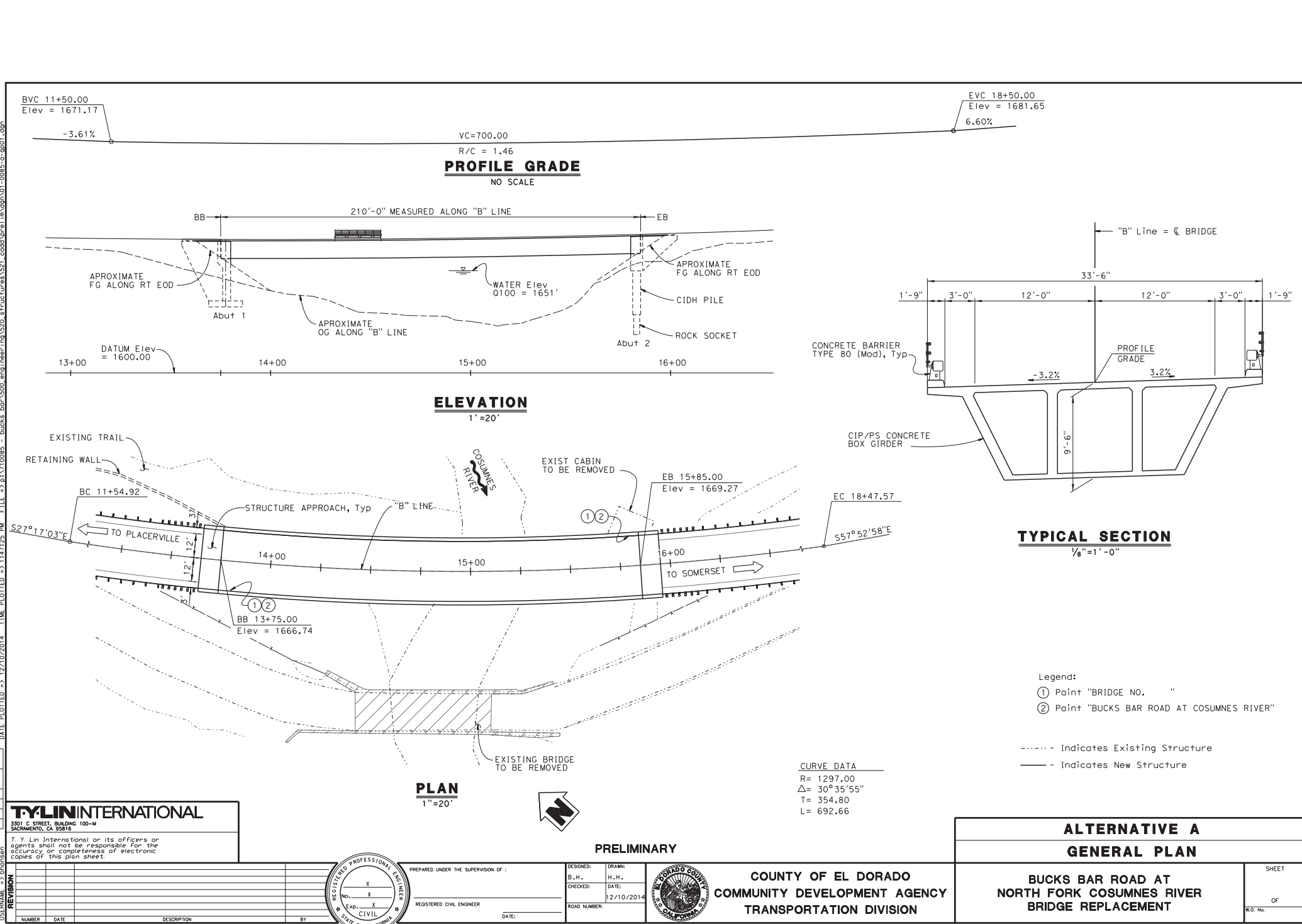


Figure 4. Proposed Bridge Plan and Profile Views (Alternative A)

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Alternative B - CIP/PS Two Span Box Girder

Alternative B is a two span CIP PS box girder with two equal spans of 110 ft for a total length of 220 ft. The benefit of the two span alternative is that a shallower structure depth can be used, minimizing the visual impact of a deeper structure. The longer total bridge length allows the abutments to be pushed away from the river, minimizing impacts to both the adjacent property owner and the river. Because the overall bridge length is only 10 ft longer, the abutment locations for Alternative A and B are similar.

The two span alternative would place a single intermediate support in the flat area adjacent to the low flow channel. During higher flows this support would be located within the ordinary high water of the river. Construction of the intermediate support is expected to be difficult due to the presence of very strong granitic rock. The intermediate support would be founded on a spread footing with tie down anchors into the bedrock to resist overturning loads. The abutments would be seat type abutments similar to Alternative A. The north abutment would be a cantilever abutment founded on a spread footing embedded into underlying rock. The south abutment would be a seat type abutment founded on two large diameter CIDH piles with rock sockets.

Alternative C - CIP/RC Three Span Box Girder

Alternative C is a three span CIP reinforced concrete (RC) box girder bridge. The three span lengths are 75, 95, and 75 ft for a total length of 245 ft. The three span alternative would place single column bents on either side of the river, outside of the low flow channel. During heavy rains the columns would be located within the high water elevations. Similar to Alternative B, construction of the intermediate supports is expected to be difficult due to the presence of very strong granitic rock. The intermediate supports would be founded on spread footings with tie down anchors into the bedrock to resist overturning loads.

The abutments would be seat type abutments similar to Alternatives A and B. The north abutment would be a cantilever abutment founded on a spread footing embedded into underlying rock. The south abutment would be a seat type abutment founded on two large diameter CIDH piles with rock sockets. Because the overall bridge length is 35 ft longer than Alternative A, the abutment locations will be slightly further up the bank.

3.2.3 Roadway Geometrics

At the bridge, the horizontal roadway alignment is on a constant horizontal curve with a 1,297 ft radius. The road slopes down as it approaches the bridge with grades of 3.61% and 6.60% from the north and south approaches respectively. The bridge is superelevated at a constant 3.2%.

A design speed of 40 mph was used to develop the roadway geometrics. The 40 mph design speed results in a proposed profile grade with an elevation that is higher compared to the existing roadway profile

grade. At the intersection of the proposed and existing edge of traveled way there is an approximate 5 ft elevation difference. This will be accounted for during roadway design and may likely require shoring for construction of roadway conforms.

The typical roadway section accommodates two 12 ft lanes with 4 ft shoulders. At the bridge, the shoulder widths are reduced to 3 ft. The bridge would include a Type 80 Caltrans barrier with a tubular steel railing to accommodate potential pedestrian and bicycle traffic.

3.2.4 Existing Traffic

Based on input from public meetings and commitments to the El Dorado County Board of Supervisors, maintaining existing traffic along Bucks Bar Road is critical to any alternative proposed. The design speed results in a relatively flat horizontal curve which pulls the alignment upstream when compared with the existing alignment. One advantage of this alignment shift is that traffic would be maintained on the existing Bucks Bar Road Bridge during construction of the replacement bridge. The new abutments will be placed relatively close to the existing roadway. The construction of the footings may require temporary shoring to support the existing roadway.

The roadway conforms will be located away from existing driveways in order to minimize impacts to property owners. Access to residences at the project site will be maintained throughout Project construction. The Project does not require a detour. Bucks Bar Road and the existing bridge will open during construction of the replacement bridge.

There may be minor delays to traffic during the installation of the shoring and during construction of the roadway conforms. Prior to establishing a temporary work trestle within the construction site, there may be minor traffic impacts as construction personnel use the existing bridge to access either side of the river.

3.2.5 Right-of-Way

With the shift in the alignment, right-of-way acquisition will be required on both the north and south sides of the river. There is an existing cabin on the south side of the river which would need to be acquired and removed prior to construction. On the north side of the river, there is an existing home which can be avoided. Right-of-way acquisition would be required between the existing roadway and the trail which leads from the home to the river. A retaining wall is proposed along the existing trail to support the proposed roadway embankment to minimize the right-of-way acquisition and impacts to the property owner.

Temporary construction easements would be required on the north and south sides of the River to provide access for construction of a temporary crossing and to provide access during construction of the north abutment and retaining wall. It is assumed that access to the crossing will be provided from both the north and south properties to minimize turn-around areas near the River.

3.2.6 Construction Considerations

The majority of construction would occur during the dry season when the water flows within the North Fork of the Cosumnes River are at their seasonal minimum. Work within the river corridor would include the installation of temporary falsework, as well as construction of a temporary crossing that would be placed over the river to provide a stable platform from which the contractor would access both sides of the river and perform the required construction activities.

Project construction may require an in-stream water diversion of a portion of the North Fork Cosumnes River. The temporary crossing may include piped and open or covered channel diversions. Flows would be maintained through the existing channel. Other diversion methods may include the use of water pillows, rock, sandbags, sheet piling, pipes or coffer dams, or other structural methods approved by the Project Engineer and CDFW.

An access road would be constructed from the south bank of the river down to the temporary crossing. It is anticipated that most of the construction activity would access the site from the south.

Falsework would be required to support the forms for the concrete bridge construction. Falsework would be designed to span the river. It is anticipated that the falsework would be founded on spread footings.

Temporary shoring would be required at the north abutment to support the roadway embankment during excavation of the north abutment. Based on the geotechnical borings, the bedrock is located at a relatively shallow depth. The height of the temporary shoring would be limited if the abutment footing is stepped to match the underlying rock.

Materials and equipment used for the construction of the bridge could be staged to the south of the river on the right-of-way acquired for the south roadway approach. General bridge construction equipment expected to be used includes, but is not limited to: off-highway trucks, off-highway tractors, cranes, excavators, crawler tractors, graders, rough terrain forklifts, pavers, backhoes, rollers, and cement and mortar mixers.

3.2.7 Utilities

Overhead utilities within the Project limits include PG&E power and AT&T telephone. The utilities would be relocated south of the proposed bridge site prior to the construction of the new bridge.

Temporary relocation would be required at the existing bridge site to accommodate bridge demolition. Relocation of overhead utility lines may require the County, utility provider, or their contractors to trim or remove trees prior to construction.

3.2.8 Schedule

It is anticipated that the Project construction will occur in 2017/2018. The new bridge and road work would be constructed in a single season. The removal of the existing bridge would likely occur in the following construction season.

3.3 Construction Contract

Transportation would retain a construction contractor to construct the proposed improvements. The contractor would be responsible for compliance with all applicable rules, regulations, and ordinances associated with proposed Project activities and for implementing construction-related mitigation measures. Transportation would provide construction contractor oversight and management and would be responsible for verifying implementation of the mitigation measures. The contractor would construct the proposed Project in accordance with the Public Contract Code of the State of California, the State of California Department of Transportation Standard Plans and Standard Specifications, and the Contract, Project Plans, and Project Special Provisions under development by Transportation. The following are a combination of standard and project-specific procedures/requirements applicable to Project construction:

- Construction contract special provisions will require that a Traffic Management Plan be prepared. The Traffic Management Plan will include construction staging and traffic control measures to be implemented during construction to maintain and minimize impacts to traffic during construction. The Traffic Management Plan will address the coordination issues;
- Contract special provisions will require compliance with El Dorado County Air Quality Management District (AQMD) Rules 223, 223-1, and 223-2 to minimize fugitive dust emissions;
- Contract provisions will require notification of Transportation and compliance with California Health and Safety Code Section 7050.5 and California Public Resources Code Sections 5097.5, 5097.9 et seq., regarding the discovery and disturbance of cultural materials or human remains should any be discovered during project construction;
- Contract provisions will require implementation of best management practices (BMPs) consistent with the current Caltrans Stormwater Quality Handbooks to protect water quality and minimize the potential for siltation and downstream sedimentation.
- Transportation or its construction contractors will conduct early coordination with utility service providers, law enforcement and emergency service providers to ensure minimal disruption to service during construction;
- Transportation and its construction contractors will comply with the current State of California Standard Specifications written by the State of California Department of Transportation, for public service provision; and
- The Project would comply with El Dorado County General Plan Policy 6.5.1.11 pertaining to construction noise.

- The County will install ESA fencing and other protection measures as shown in the Caltrans approved Cultural Resources documents.
- Contract provisions will require the existing paint system be handled in accordance with Caltrans Standard Special Provisions for removal of lead paint (Provision 14-11.08, Disturbance of Existing Paint Systems on Bridges).
- Contract provisions will require ACM be handled in accordance with Caltrans Non-Standard Special Provisions for 14-11.11, Management of Asbestos Containing Materials.

4. Initial Study Checklist and Supporting Documentation

4.1 Initial Study Checklist

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

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

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

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

4.2 Setting, Impacts, and Mitigation Measures

4.2.1 Aesthetics

	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
I. AESTHETICS—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) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The Project occurs in the Sierra Nevada, at an elevation ranging from of approximately 1,620 ft to 1,700 ft above sea level. The Project is located in rural setting in unincorporated El Dorado County. The Project area includes unpaved/ ruderal areas, paved portions Bucks Bar Road, a segment of the North Fork Cosumnes River, and riparian and upland forest habitat.

A Visual Impact Memorandum was prepared for the proposed Project (Dokken Engineering 2011) and approved by Caltrans on 10 June 2011. The potential visual impact from the Bucks Bar Bridge Replacement Project was analyzed using the Visual Impact Assessment Guide (VIA Checklist) provided in Caltrans' Standard Environmental Reference. The Visual Impact Memorandum concludes:

'A detailed visual analysis is not warranted considering the fact that, with implementation of the proposed project, viewer groups would see little change to the setting. The project would replace an existing bridge that is largely inconspicuous to viewer groups and is not a prominent visual feature in this area of rural El Dorado County.'

Potential Environmental Effects

- a) ***Less Than Significant Impact.*** Visual resources consist of two categories: scenic views and scenic resources. As per CEQA Checklist, Scenic resources are described as specific features of a viewing area (or viewshed) such as trees, rock outcroppings, and historic buildings. Scenic views are elements of the broader view shed such as mountain ranges, valleys, and ridgelines. A scenic vista refers to the view of an area that is visually or aesthetically pleasing.

Table 5.3-1 of the General Plan EIR identifies multiple scenic views and resources in the County (El Dorado County 2004a). Bucks Bar Road is not identified in Table 5.3-1 of the General Plan EIR. Bucks Bar Road is not a state designated scenic highway. Table 5.3-1 identifies the North Fork Cosumnes River as a 'scenic view' (El Dorado County 2004a).

The Project consists of replacement of the existing concrete arch open spandrel bridge with a single span bridge. There are few concrete arch open spandrel bridges in El Dorado County. In

addition to the Bucks Bar bridge, one is on Mira Paradis, a private road on the Middle Fork Cosumnes River, and the other is on Forni Road over Weber Creek in the City of Placerville. The new bridge includes a Type 80 Caltrans barrier with a tubular steel railing. This type of barrier is referred to as a “see-through concrete barrier on a concrete curb.” The low barrier includes a gap between the curb and rail, allowing the user to “see-through” the barrier. The tubular railing that accommodates pedestrian and bicycle traffic is likewise “see-through.” Typical bridge elements which could incorporate aesthetic features include concrete barrier railing and faces of retaining walls. The exterior girders of the box girder would be sloped to minimize the appearance of the structure depth. A shadow line is created by the deck overhang which projects down the exterior face of the box girder. A sloped exterior girder moves the shadow line down the exterior face of the girder resulting in a structure which appears “thinner” than a structure with vertical girders.

The scenic character of the North Fork Cosumnes River will be temporarily affected during Project construction. Once complete, the scenic view of the new bridge and North Fork Cosumnes River will be visually consistent with the existing baseline conditions and with other transportation infrastructure in the vicinity of the Project. The Project includes revegetation and planting to restore areas temporarily affected by construction. Impacts to the scenic resources are considered less-than significant.

- b) **Less Than Significant Impact.** See discussion of a) above.
- c) **Less Than Significant Impact.** See discussion of a) and b) above.
- d) **No Impact.** The Project does not introduce any new source of light or glare.

4.2.2 Agricultural and Forestry Resources

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

<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
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- a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Result in the loss of forest land or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Environmental Setting

The Project is located in a rural area in the Sierra Nevada. The Project area is mapped as ‘Urban and Built-Up Land’ by the States Farmland Mapping and Monitoring Program (California Department of Conservation 2015c). ‘Urban and Built-Up Land’ is ‘occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. Common examples include residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control structures.’ No Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or lands under Williamson Act contracts occur in the project area. The Project area is not located in an a ‘Timber Production Zone’ as identified on Exhibit 5.2-4 (Timber Production Zones) of the County General Plan EIR (El Dorado County 2004a).

Potential Environmental Effects

- a) ***No Impact.*** No Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or lands under Williamson Act contracts occur in the project area.
- b) ***No Impact.*** See response for item a).
- c) ***No Impact.*** The Project area is not located in the area identified as ‘Timber Production Zone’ on Exhibit 5.2-4 (Timber Production Zones) of the County General Plan EIR (El Dorado County 2004a). The proposed Project is consistent with the existing zoning and does not include any rezoning activities.
- d) ***Less Than Significant Impact.*** The proposed Project will result in temporary and permanent impacts to forest land (as defined in Public Resources Code section 12220(g)). Temporary impact to forest land will result from trees and vegetation removal to allow construction of the proposed Project. Approximately 0.207 ac of Mixed Live Oak and Conifer Lower Montane Forest will be permanently affected by construction of the replacement bridge. The permanent loss of less than a quarter of an acre (0.207 ac) of forest land (as defined in Public Resources Code section 12220(g)) is considered less than significant.
- e) ***No Impact.*** The project is not anticipated to involve other changes in the existing environment that could result in conversion of farmland or forest land.

4.2.3 Air Quality

III. AIR QUALITY— Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

The project area is located in the Mountain Counties Air Basin (MCAB). The San Francisco Bay Area Air Basin and the Sacramento Valley Air Basin are located to the west, and the San Joaquin Valley Air Basin is located to the south. Climate in the MCAB relate to elevation and proximity to the Sierra Ridge. Precipitation is greater and temperatures are lower at higher elevations. Summer temperatures in the project area are in the mid- to upper nineties. Winter temperatures are in the upper thirties to lower forties.

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

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

The Mountain Counties Air Basin portion of El Dorado County is currently nonattainment for the national 8-hour ozone and PM 2.5 standards. The Mountain Counties Air Basin portion of El Dorado County is nonattainment for the following CAAQS: 8-Hour Ozone, 1-Hour Ozone, and 24-Hour PM10.

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

- **Rule 205 (Nuisance):** Prohibits the discharge of air containments which cause injury, detriment, nuisance, or annoyance.
- **Rule 207 (Particulate Matter):** Limits the quantity of PM through concentration limits.
- **Rule 215 (Architectural Coatings):** Defines the quantities of reactive organic compounds permitted for use in new construction.
- **Rule 223 (Fugitive Dust):** The purpose of this rule is to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (man-made) fugitive dust sources by requiring actions to prevent, reduce or mitigate fugitive dust emissions.
- **Rule 223-1 (Fugitive Dust – Construction):** Requires a Fugitive Dust Control Plan be prepared and submitted to the El Dorado County AQMD prior to ground disturbing activities. Pursuant to Rule 610, the El Dorado County AQMD charges a fee to review the Fugitive Dust Control Plan required by Rule 223-1.
- **Rule 223-2 (Fugitive Dust – Asbestos Hazard Mitigation):** The purpose of this Rule is to reduce the amount of asbestos particulate matter entrained in the ambient air as a result of any construction or construction related activities, that disturbs or potentially disturbs naturally occurring asbestos by requiring actions to prevent, reduce or mitigate asbestos emissions.
- **Rule 224 (Cutback and Emulsified Asphalt Paving Materials):** Limits emissions of ROG's from the use of cutback and emulsified asphalt paving materials, paving, and maintenance operations.
- **Rule 233 (Stationary Internal Combustion Engines):** Limits emissions of NOx and CO from stationary internal combustion engines. (This rule applies to any stationary internal combustion engine rated at more than 50 brake horsepower, operated on any gaseous fuel or liquid fuel, including liquid petroleum gas (LPG), gasoline, or diesel fuel.)

El Dorado County AQMD's Guide to Air Quality Assessment (2002) specifies specific daily emissions thresholds that can be used to determine the significance of project emissions. The El Dorado County AQMD considers a significant cumulative impact to occur if the project requires a change in the existing land use designation (i.e., general plan) and would individually exceed the project-level thresholds of significance. Thresholds of significance for specific pollutants of concern are as follows:

- ROG: 82 lbs/day
- NOx: 82 lbs/day
- PM10: AAQS

Potential Environmental Effects

As recommended in the *El Dorado County AQMD Guide to Air Quality Assessment* construction emissions were estimated for the Project using the Sacramento Metropolitan Air Quality Management District's current *Road Construction Emissions Model (RCEM), Version 7.1.5.1*. The RCEM was

developed to estimate emissions from linear projects types including road and bridge construction. The RCEM divides the project into four ‘Construction Periods:

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

Based on similar County road and bridge projects, the assumptions presented in Table 1 regarding type of construction equipment and use duration were used in the RCEM. Other Project assumptions used in the RCEM include a twelve month construction schedule starting in 2018, use of water trucks, a daily soil import/ export volume of 100 cubic yards, and all equipment would operate 8 hrs per day. Results of the RCEM based on the Project assumptions are in Table 2.

Table 1. Construction Equipment and Use Assumptions.

Construction Period	Equipment Type &(Quantity)	Days In Use During Construction Period (Applies to all Equipment)
Grubbing/ Land Clearing	Bulldozer (1) Excavator (2) Rubber Tired Loader (1) Signal Board (2)	36
Grading/Excavation	Bulldozer (1) Excavator (2) Rollers (2) Rubber Tired Loader (1) Signal Board (2) Sweeper/ Scrubbers (1) Tractor/ Loader/ Backhoe (1)	162
Drainage/Utilities/Sub-Grade	Air Compressor (2); Generator Set (1) Excavator (1) Graders (3) Plate Compactor (3) Pump (2) Rough Terrain Forklift (4) Scraper (1) Signal Board (2) Sweeper/ Scrubbers (1) Tractor/ Loader/ Backhoe (1) Water Truck (1)	108
Paving	Air Compressor (1); Generator Set (1) Graders (1); Paver (1) Paving Equipment (1); Rollers (2) Signal Board (2) Water Truck Tractor/ Loader/ Backhoe (1)	54

Table 2. Estimated Construction Emissions

Project Phases	ROG lbs/day	CO lbs/day	NOx lbs/day	PM10 lbs/day	Exhaust PM10 lbs/day	Fugitive Dust PM10 lbs/day
Grubbing/land clearing	2.4	17.0	24.9	61.0	1.0	60.0
Grading/excavation	4.0	27.8	40.0	62.0	2.0	60.0
Drainage/utilities/sub-grade	8.7	53.0	76.0	64.4	4.4	60.0
Paving	4.0	24.2	31.9	2.0	2.0	-
Maximum lbs/day	8.7	53.0	76.0	64.4	1.0	60.0
Significance Threshold	82	AAQS	82	AAQS	N/A	N/A
Significant?	No	No	No	No	N/A	N/A

Notes: Data entered to emissions model: Project Start Year: 2018; Project Length (months): 12; Total Project Area (acres): 6; Total Soil Imported/Exported (yd³/day): 200. PM10 estimates assume 50% control of fugitive dust from watering and associated dust control measures. Total PM10 emissions are the sum of *exhaust* and *fugitive dust* emissions.

- a) **No Impact.** The proposed Project is identified in the Sacramento Council of Governments’ *Metropolitan Transportation Plan/Sustainable Communities Strategy 2035* (Sacramento Council of Governments 2012). Projects included in the Metropolitan Transportation Plan have been determined to be consistent with the planning goals of the State Implementation Plan.
- b) **Less Than Significant Impact.** El Dorado County is in nonattainment status for both federal and state ozone standards and the state PM10 standard. Construction activities would result in short-term increases in emissions from the use of heavy equipment that generate dust, exhaust, and tire-wear emissions and from paints and coatings.

Project construction would create short-term increases in ROG, NOx, and PM10 emissions from vehicle and equipment operation. The RCEM estimates are below the County’s significance threshold of 82 lbs/ day each for of ROG and NOx. As per Chapter 4 of the *El Dorado County AQMD Guide to Air Quality Assessment*, if ROG and NOx emissions are below the threshold values (not significant) then CO and PM10 emissions from construction equipment, and exhaust emissions of all constituents from worker commute vehicles are also not significant. The Project would not generate additional traffic on Bucks Bar Road and would not increase operational emissions.

- c) **No Impact.** Cumulative net increases of criteria pollutants have been evaluated in the *Metropolitan Transportation Plan/Sustainable Communities Strategy 2035* (SACOG 2012). This Project (CIP 77116) is referenced and evaluated in the *Metropolitan Transportation Plan/Sustainable Communities Strategy 2035*. Also see the response for item b.
- d) **Less Than Significant Impact.** Adjacent residences have the potential to be exposed to PM10, PM2.5, CO, ROG, and NOx during construction. These impacts are considered less than significant due to the limited nature of the Project and short-term construction period.

The Project is not located within an area known to contain naturally occurring asbestos (NOA) or an area “more likely to contain naturally occurring asbestos” (California Department of Conservation 2000, El Dorado County 2005).

- e) ***Less Than Significant Impact.*** Construction activities would involve the use of construction equipment and asphalt paving, which have distinctive odors. Odors are considered less than significant because of the limited number of the public affected and the short-term nature of the emissions.

4.2.4 Biological Resources

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

Environmental Setting

Potential impacts to biological and wetlands resources were evaluated in the Project’s Natural Environment Study (NES) and the NES Addendum (Sycamore Environmental 2015). The NES is a standard Caltrans report format for documenting and evaluating the potential Project impacts to biological resources from projects of limited scope and impact. The NES concludes the following regarding biological resources:

- The Project area does not provide habitat for federal-listed wildlife or plant species. There is no critical habitat in the Project area and the Project will not affect critical habitat.
- The Project area does not provide habitat for federal-listed anadromous salmonids.

- The Project area does not contain essential fish habitat (EFH) for Pacific salmon.
- The Project will not result in the ‘take’ of state-listed species or species proposed for listing.
- The Project area provides suitable habitat for birds of prey and birds protected under the Migratory Bird Treaty Act (MBTA).
- The Project area provides suitable habitat for special-status plants ranked by the California Native Plant Society (CNPS). No rare plants were observed.
- The Project will temporarily impact Section 404 jurisdictional wetlands and waters of the U.S.

The NES Addendum evaluated special-status species which are those listed (or candidate or proposed) under the federal or state endangered species acts, under the California Native Plant Protection Act, as a California species of special concern or fully protected by the California Department of Fish and Wildlife (CDFW), or that are California Rare Plant Rank 1 or 2 (CNPS 2015). Special-status natural communities in the NES Addendum are waters, wetlands, riparian communities, and any natural community ranked S1, S2, or S3 by CDFW (2010).

An official letter and list were obtained from the USFWS, Sacramento Field Office on 6 May 2015. The list identifies federal-listed, candidate, or proposed species that potentially occur in or could be affected by projects. The California Natural Diversity Database (CNDDDB) was queried for known occurrences of special-status species in or near the BSA (Camino Quad and the eight surrounding quads; data dated 1 May 2015). The California Native Plant Society (CNPS) inventory of rare and endangered plants was queried on 1 May 2015 for known occurrences of special-status plant species in or near the BSA (Standard Quad and the eight surrounding quads).

Data received from USFWS, CNDDDB and CNPS records were used to compile a table of regional species and habitats of concern. The NES Addendum includes all the species previously evaluated in the 2011 NES and those that have been added to the USFWS and CNDDDB lists since 2011.

The NES 2011 documents that biological field surveys were conducted by biologists in January and April 2011. On 27 January 2015, Jessica Orsolini, B.S., a Sycamore Environmental Biologist, conducted additional biological surveys. The purpose of the field survey was to verify the biological communities in the NES and document any changes in the BSA. The field survey, map review, and a review of the biology of evaluated species and habitats were used to determine the special-status species and sensitive habitats that could occur in the BSA. Additional site visits were conducted by Jeffery Little on 20 August 2014, 23 September 2014, and 16 March 2015.

Biological communities that occur in the Project area were described in the 2011 NES. The acreage of the biological communities and the temporary and permanent impacts shown in the following Table are from the NES Addendum (Sycamore Environmental 2015).

Table 3. Natural Communities in the Project area

Biological Community	Acreage	Temporary Impact (ac)	Permanent Impact (ac)	Total Impacts (ac)
Mixed Live Oak and Conifer Lower Montane Forest <i>Quercus chrysolepis</i> - <i>Pinus ponderosa</i> Alliance (71.050.18)	3.489	1.817	0.207	2.054
Alder Riparian Forest <i>Alnus rhombifolia</i> Alliance (61.420.10)	0.231	0.209	0	0.209
North Fork Cosumnes River	0.465	0.444	0	0.444
Seasonal Wetland	0.008	0.008	0	0.008
Ephemeral Drainages	0.003	0.002	0	0.002
Disturbed/Ruderal ¹	1.851	--	--	--
Total:	6.047	2.480	0.207	2.687

¹ Acres calculated using AutoCAD® functions.

² Alliance code and rarity rank (G5S4) are from the most recent CDFW list of vegetation alliances and natural communities. State (S) ranks of 1-3 are considered highly imperiled by CDFW (2010b).

Mixed live oak and conifer lower montane forest is the dominant community in the BSA. This habitat community is dominated by Canyon live oak (*Quercus chrysolepis*) and Ponderosa Pine (*Pinus ponderosa*). The Canyon live oak-Ponderosa pine community is considered highly imperiled (G5S3) by CDFW (2010).

Canyon live oak is the most common oak species in the Project area. Other oak species include California black oak (*Quercus kelloggi*) and Valley oak (*Quercus lobata*). Ponderosa pine is the most common conifer species. Other native trees include white alder, incense cedar (*Calocedrus decurrens*), California black walnut (*Juglans californica*), Jeffery pine (*Pinus jeffreyi*), knobcone pine (*Pinus attenuata*), cottonwood (*Populus* sp.), and willow (*Salix* sp.). No County designated landmark or heritage trees occur within the Project area. Non-native landscaping trees occur on private property within the Project area, and include juniper (*Juniperus* sp.), Japanese privet (*Ligustrum japonicum*), and black locust (*Robinia pseudoacacia*).

El Dorado County General Plan Policy 7.4.4.4 regulates oak canopy including oak trees occurring outside of oak woodlands. It is the policy of El Dorado County to protect and maintain native trees including oaks and landmark and heritage trees. Native trees are protected by policies in the El Dorado (2004b) General Plan Open Space Element (Section 7.4 et seq.). Trees are to be preserved wherever feasible. Public road safety projects are exempt from Policy 7.4.4.4.

Alder riparian forest consists of a narrow strip along both banks of the river interspersed between the large granite rocks. Alder riparian forest vegetation overhangs North Fork Cosumnes River, and is dominated by white alder (*Alnus rhombifolia*) and willow (*Salix* sp.) in the overstory and periwinkle (*Vinca major*) and Himalayan blackberry (*Rubus armeniacus*) in the understory. Alder riparian forest is a natural community of special concern because it is part of the stream zone protected by Fish and Game Code

Section 1600. The *Alnus rhombifolia* Alliance has a rarity rank of G4S4 and is not considered highly imperiled by CDFW.

North Fork Cosumnes River is a natural community of special concern because it is a potential waters of the U.S. North Fork Cosumnes River is mapped as a perennial river on the USGS Standard quad map. The North Fork Cosumnes River watershed begins in the Sierra Nevada Mountains northeast and outside the BSA. North Fork Cosumnes River flows south-southwest through the BSA to the Cosumnes River which drains to the Mokelumne River. Alder riparian forest occurs as a narrow strip along either side of North Fork Cosumnes River in the BSA. The creek bed consists primarily of granite bedrock.

Potential Environmental Effects

- a) Would the project: 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?

Potentially Significant Unless Mitigation Incorporated. The Project area provides marginal habitat for special status wildlife and plant species. There is no critical habitat in the Project area and the Project will not affect critical habitat. The Project will not result in the ‘take’ of state-listed species or species proposed for listing.

FOOTHILL YELLOW-LEGGED FROG (FYLF) and WESTERN POND TURTLE (WPT)

The FYLF is not a State or Federally listed species, but is a CDFG Species of Special Concern. FYLFs can be found partly shaded, shallow streams and rocky riffles in a variety of habitats. The species requires some cobble-sized substrate for egg laying and a water source persisting for at least 15 weeks for larval metamorphosis. There are recorded occurrences of the FYLF in the region, the nearest being approximately 2 miles from site. No FYLF were observed during the 2011 or 2015 surveys. There is a moderate chance for the frog to occur within the project location.

The WPT is not a State or Federally listed species, but is a CDFG Species of Special Concern. The WPT is a fully aquatic turtle, inhabiting ponds, marshes, rivers, streams and irrigation ditches with aquatic vegetation. There are recorded occurrences of the turtle in the region, the nearest being approximately 3.5 miles from site. No turtles were observed during the 2011 or 2015 surveys. There is a moderate chance for the turtles to occur within the project location.

Avoidance and minimization measure to protect North Fork Cosumnes River will also protect FYLF and WPT. BIO-1 modifies the CRLF mitigation measures as applicable for FYLF and WPT. Implementation of BIO-1 will ensure that the Project has a less than significant effect on FYLF and WPT.

Measure BIO-1

- *If FYLF or WPT are found at any time during project work, construction will stop and CDFW will be contacted immediately for further guidance.*
- *Staging areas as well as fueling and maintenance activities shall be a minimum of 100 ft from riparian or aquatic habitats. The project proponent will prepare a spill prevention and clean-up plan.*
- *The project will administer Best Management Practices (BMPs) to protect water quality and control erosion.*

- *Upon completion of construction activities, any barriers to flow shall be removed in a manner that would allow flow to resume with the least disturbance to the substrate.*
- *Environmental awareness training will be given to construction personnel by a CDFW-approved biologist to brief them on how to recognize FYLF and WPT. Construction personnel will also be informed that if a FYLF or WPT is encountered in the work area, construction will cease. The Resident Engineer, in consultation with the project biologist, will determine if work may resume while protecting the species. CDFW will be notified.*
- *Plastic mono-filament netting (erosion control matting) or similar material containing netting shall not be used. Acceptable substitutes include coconut coir matting or tackified hydroseeding components.*

CALIFORNIA RED LEGGED FROG

A Habitat Assessment for California red-legged frog (CRLF) at the Project was prepared by HydroTerra Consulting in April 2011. The Habitat Assessment determined the Project site does not provide suitable breeding habitat for CRLF due to the high velocity of the river during most of the year and the lack of emergent vegetation. Potential breeding habitat may be present within one mile of the project. The site does contain potential upland and dispersal habitat. Caltrans, acting as the federal lead agency for the Project, submitted the NES and Habitat Assessment to USFWS on 3 August 2011 requesting informal consultation regarding the Project's potential to affect CRLF. On 29 September 2011, USFWS responded with a letter of concurrence that the project is not likely to adversely affect CRLF.

The majority of in-stream construction would occur during the dry season when the water surface within the North Fork of the Cosumnes River is at its seasonal minimum. The Project does not result in any permanent impacts to the North Fork Cosumnes River. Work within the river corridor would include the installation of temporary falsework, as well as construction of a temporary crossing that would be placed over the river to provide a stable platform from which the contractor would access both sides of the river and perform the required construction activities.

Avoidance and minimization measure to protect North Fork Cosumnes River will also protect CRLF. BIO-2 lists the CRLF avoidance and minimization efforts described in the 2011 NES and conservation measures from USFWS (2011). Implementation of BIO-2 will ensure that the Project has a less than significant effect on CRLF.

Measure BIO-2

- *If the CRLF is found at any time during project work, construction will stop and USFWS will be contacted immediately for further guidance.*
- *Staging areas as well as fueling and maintenance activities shall be a minimum of 100 ft from riparian or aquatic habitats. The project proponent will prepare a spill prevention and clean-up plan.*
- *The project will administer Best Management Practices (BMPs) to protect water quality and control erosion.*

- *Upon completion of construction activities, any barriers to flow shall be removed in a manner that would allow flow to resume with the least disturbance to the substrate.*
- *Environmental awareness training will be given to construction personnel by a USFWS-approved biologist to brief them on how to recognize CRLF. Construction personnel will also be informed that if a CRLF is encountered in the work area, construction will cease and the USFWS will be called for guidance before any construction activities are resumed.*
- *Plastic mono-filament netting (erosion control matting) or similar material containing netting shall not be used at the Project area because the CRLF or other animals may become entangled or trapped in it. Acceptable substitutes include coconut coir matting or tackified hydroseeding components.*

BIRDS OF PREY AND MIGRATORY BIRDS

The Project area provides potential nesting habitat for birds of prey and birds listed by the Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711). BIO-3 will be implemented to avoid impacts to birds of prey and birds listed by the MBTA.

Measure BIO-3

Under the MBTA, nests that contain eggs or unfledged young are not to be disturbed during the breeding season. Nesting or attempted nesting by migratory birds and birds-of-prey is anticipated from February 15 through September 1.

Swallow

In California, bridge-nesting swallows typically arrive in mid-February, increase in numbers until late March, and remain until October. Nesting begins in April, peaks in June, and continues into August. Measures should be taken to prevent establishment of cliff swallow nests prior to construction. Techniques to prevent nest establishment include using exclusion devices, removing and disposing of partially constructed and unoccupied nests of migratory or nongame birds on a regular basis to prevent their occupation, or perform any combination of these. This can be done by:

- *The contractor can visit the site weekly and remove partially completed nests using either hand tools or high pressure water; and/or*
- *Hang netting from the bridge before nesting begins. If this technique is used, netting should be in place from late February until project construction begins.*

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

- *If construction begins outside the 15 February to 1 September breeding season, there will be no need to conduct a preconstruction survey for active nests.*
- *Trees scheduled for removal should be removed during the non-breeding season from 2 September to 14 February.*
- *If construction is scheduled to begin between 15 February and 1 September, a biologist shall conduct a survey for active bird of prey nests within 250 ft and active MTBA bird nests within 100 ft of the BSA from publicly accessible areas within one week prior to construction. The measures listed below shall be implemented based on the survey results.*

No Active Nests Found:

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

Active Nests Found:

- *If an active nest of a bird of prey, MBTA bird, or other CDFW protected bird is discovered that may be adversely affected by construction activities or an injured or killed bird is found, immediately:*
 1. *Stop all work within a 100-ft radius of the discovery.*
 2. *Notify the Engineer.*
 3. *Do not resume work within the 100-ft radius until authorized.*
- *The biologist shall establish a minimum 250-ft Environmentally Sensitive Area (ESA) around the nest if the nest is of a bird of prey, and a minimum 100-ft ESA around the nest if the nest is of an MBTA bird other than a bird of prey.*

Table 4. Bird Species Protection Areas

<i>Protected Bird Type</i>	<i>Size of Protection Area (ESA)</i>
<i>Bird of prey</i>	<i>250 ft no-disturbance buffer</i>
<i>MBTA protected bird (not bird of prey)</i>	<i>100 ft no-disturbance buffer</i>

- *Activity in the ESA will be restricted as follows:*
 1. *Do not enter the ESA unless authorized.*
 2. *If the ESA is breached, immediately:*
 - a. *Secure the area and stop all operations within 60 feet of the ESA boundary.*
 - b. *Notify the Engineer.*
 3. *If the ESA is damaged, County determines what efforts are necessary to remedy the damage and who performs the remedy.*
- *No construction activity will be allowed in the ESA until the biologist determines that the nest is no longer active, or unless monitoring determines that a smaller ESA will protect the active nest.*
- *The size of an ESA may be reduced if the biologist monitors the construction activities and determines that no disturbance to the active nest is occurring. Reduction of ESA size depends on the species of bird, the location of the nest relative to the project, project activities during the time the nest is active, and other project-specific factors.*
- *Between 15 February and 1 September, if additional trees or shrubs need to be trimmed and/or removed after construction has started, a survey will be conducted for active nests in the area to be affected. If an active nest is found, the above measures will be implemented.*

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

PLANTS

The Project area provides suitable habitat for several special-status plants ranked by the California Native Plant Society (CNPS). These species were not observed in the Project during a botanical survey conducted during the evident and identifiable period. One plant, Brownish beaked-rush, has an evident and identifiable period not covered by the biological surveys. There is a low to moderate potential habitat for the plant. Implementation of BIO-4 will ensure that Project impacts to Brownish beaked-rush are less than significant

Measure BIO-4

- *A botanical survey of the Project area will be conducted prior to initial construction activities during the evident and identifiable period of special-status plant species that could occur in the study area. The survey will be conducted in accordance with standard survey protocols (CDFW 2009; CNPS 2001), where applicable.*
- *If no sensitive plant species are detected during the botanical survey, no further avoidance and minimization efforts will be required.*
- *If sensitive plant species are detected during the botanical survey, the plants will be avoided to the maximum extent practicable during construction of the proposed project. Environmentally Sensitive Areas (ESAs) will be established around sensitive plant occurrences within the Project area to exclude construction activities. Temporary exclusionary fencing will be installed to define the limits of the ESA.*
- *If avoidance is not feasible, the plants will be transplanted to a suitable location in the Project area. The County will coordinate transplantation activities with the appropriate resource agencies.*

- b) Would the project: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?

Potentially Significant Unless Mitigation Incorporated. The North Fork Cosumnes River, a wetland, two ephemeral drainages, and the alder riparian forest community are considered sensitive natural communities in the Project area. Impacts to the North Fork Cosumnes River, a wetland, and two ephemeral drainages are discussed under Item c below.

Temporary impacts to Alder riparian forest will result from the pruning and removal of vegetation to allow temporary construction access. Implementation of measure BIO-5 and BIO-6 will reduce potential impacts to the alder riparian community to less than significant.

- c) Would the project: Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Potentially Significant Unless Mitigation Incorporated. The Project has been designed to minimize impacts to potential water of the U.S. including wetlands as defined by Section 404 of

the Clean Water Act including the North Fork Cosumnes River, a wetland, and two ephemeral drainages.

The proposed bridge does not require any permanent supports below the ordinary high water mark of the North Fork Cosumnes River. The majority of construction would occur during the dry season when the water surface within the North Fork of the Cosumnes River is at its seasonal minimum. Work within the river corridor would include the installation of temporary falsework, as well as construction of a temporary crossing for construction access. The temporary crossing may include piped and open or covered channel diversions. A temporary access road would be constructed from the south bank of the river down to the temporary crossing. It is anticipated that most of the construction activity would access the site from the south minimizing the impact to the property owner north of the river.

Falsework would be required to support the forms for the concrete bridge construction. Falsework would be designed to span the river. It is anticipated that the falsework would be founded on spread footings. The County will prepare a low water hydraulic assessment during final design to evaluate the clearance required for the falsework. The Project may require the placement of rock slope protection (RSP) at the new bridge abutments. The Project will result in a temporary disturbance of 0.444 acres of North Fork Cosumnes River. There is no permanent disturbance to North Fork Cosumnes River.

The temporary access road will cross over the wetland and the ephemeral drainages. All temporary impacts to wetlands and waters of the U.S. and adjacent upland areas within 25 feet of waters of the U.S. will be restored to their original contour and condition within 30 days of completion of construction activities.

During construction, water quality will be protected by implementation of best management practices (BMPs) consistent with the most current Caltrans Stormwater Quality Handbooks to minimize the potential for siltation and downstream sedimentation of North Fork Cosumnes River. Implementation of BIO-5 will reduce Project impacts to potential water of the U.S. including wetlands as defined by Section 404 of the Clean Water Act.

Measure BIO-5

- *A silt curtain/fence will be used around any in-water work area to minimize turbidity and sedimentation. Equipment will be refueled and serviced at designated construction staging areas. All construction material will be stored and contained in a designated area that is located away from channel areas to prevent transport of materials into the adjacent North Fork Cosumnes River. The preferred distance is a minimum 100 ft from the wetted width of the river. A silt fence will be installed to collect any discharge, and adequate materials for spill cleanup will be kept on site. Construction vehicles and equipment will be maintained to prevent contamination of soil or water from external grease and oil or from leaking hydraulic fluid, fuel, oil, and grease.*
- *If in-water work is required, a temporary diversion structure will be designed so that fish passage is maintained up and down stream of the BSA. The diversion will not create an impassible barrier. The diversion structure will be designed to pass summertime high flows.*

Water diversion and stream crossing structures should be based on the BMPs consistent with the most current Caltrans Stormwater Quality Handbooks.

- *If pumps are used to temporarily divert a stream to facilitate construction, an acceptable fish screen must be used to prevent entrainment or impingement of small fish. Potential contact between fish and pump will be minimized and/or avoided by constructing an open basin prior to commencing dewatering. The open basin will be inspected for fish, which will be salvaged and placed in the active flow of North Fork Cosumnes River adjacent to the work zone by a qualified biologist.*
- *If dewatering is required, the contractor will prepare a creek dewatering plan that complies with any applicable permit conditions. A qualified biologist will conduct a survey of the area to be dewatered immediately after installation of the dewatering device, prior to the continuation of dewatering activities. The biologist will use a net to capture trapped fish in the area to be dewatered. Captured fish will be released into North Fork Cosumnes River downstream of the active construction zone. Capturing of fish will continue during dewatering activities when fish are concentrated and easier to catch.*
- *All disturbed soils in the BSA will undergo erosion control treatment prior to October 15 and/or immediately after construction is terminated at the completion of the Project. Treatment includes temporary seeding and the application of sterile straw mulch. Any disturbed soils on a gradient of over 30 percent will have erosion control blankets installed. Permanent vegetation and tree replanting will take place in small openings in the erosion control blanket, with native species.*
- *Native trees should be avoided and preserved to the maximum extent practicable.*
- *A litter control program shall be instituted at the entire Project site. All workers will ensure that food scraps, paper wrappers, food containers, cans, bottles, and other trash from the study area are deposited in covered or closed trash containers.*
- *Areas temporarily disturbed will be revegetated and reseeded with native grasses and other native herbaceous annual and perennial species. Reseeded areas will be covered with a biodegradable erosion control fabric to prevent erosion and downstream sedimentation. The project engineer will determine the specifications needed for erosion control fabric (e.g., shear strength) based on anticipated maximum flow velocities and soil types. The seed type will consist of commercially available native grass and herbaceous species. No seed of nonnative species will be used unless certified to be sterile.*
- *The Project may be required to obtain wetland and/or waters mitigation credits or contribute to the Corps of Engineers' in-lieu fee account for temporary impacts to aquatic habitats.*

d) Would the project: 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?

Potentially Significant Unless Mitigation Incorporated. The parcels in the Project area are located within a County-designated Important Biological Corridor (El Dorado County 2004b). Construction of the project could temporarily disrupt movement of native wildlife species that occur in or adjacent to the Project area. Daytime construction activities will result in minimal disruption of nocturnal wildlife movement. If nighttime construction activities would alleviate traffic congestion and safety hazards it would comply with the noise standards for construction activities General Plan Policy 6.5.1.11. The lack of nearby development provides ample space for

wildlife to easily avoid the construction site. Although construction disturbance may temporarily hinder wildlife movements within the project area, the impact is less than significant due to its short-term nature. The Project proposes to replace the existing bridge and would not significantly affect vegetation corridors designated by the IBC or conflict with the intent of the IBC overlay. Implementation of BIO-5 requires water diversion to maintain fish passage.

e) Would the project: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Potentially Significant Unless Mitigation Incorporated. The project will result in 1.817 ac of temporary impacts and 0.207 ac of permanent impacts to mixed live oak and conifer lower montane forest. The proposed Project will result in the removal of approximately 5 riparian trees with a dbh of 4 inches or greater and approximately 84 native upland trees with a dbh of 4 inches and greater. The final tree removal determination will be made by the El Dorado County Transportation. Implementation of BIO-6 will reduce potential impacts to native trees to less than significant.

Measure BIO-6

- *Tree removal will be minimized to the maximum extent possible. The limits of construction will be marked with temporary fencing. Trucks and other vehicles will not be allowed to park beyond, nor shall equipment be stored beyond, the fencing. No vegetation removal, ground disturbing activities, or burning will be permitted beyond the fencing.*
- *Disturbed areas in the Project area will be seeded with native herbaceous plant species.*
- *Native riparian trees removed that are over 4 inches dbh will be replaced at a ratio agreed to by the County and CFDW, but not less than 2:1.*
- *Native upland trees removed from County owned right of way that are over 4 inches dbh will be replaced at a ratio of 1:1 where feasible within the limits of the Project area.*
- *Native upland trees removed from Temporary Construction Easements (TCEs) on private parcels will be replaced at a ratio of 1: 1 in consultation with the property owner.*

f) Would the project: Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The Project is not located in an area covered by a habitat or natural community conservation plan. El Dorado County is currently preparing an Integrated Natural Resources Management Plan to identify important habitats in the county and establish a program for the management and preservation of these areas. The plan is still in process and is not anticipated to be adopted until after this Project has been completed.

4.2.5 Cultural Resources

V. CULTURAL RESOURCES—Would the project:	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Cause a substantial adverse change in the significance of a	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

historical resource as defined in §15064.5?

- | | | | | |
|---|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Disturb any human remains, including those interred outside of formal cemeteries? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Environmental Setting

Tremaine & Associates, Inc. (Tremaine) prepared following cultural resource documentation for the proposed Project:

- *Archaeological Survey Report (ASR) and Extended Phase I Investigation (XPI) Report:* The ASR included a records search and literature review, an intensive pedestrian survey, and consultation with the Native American community and local preservation societies. The ASR documents both positive and negative archaeological survey results (Tremaine 2014a). The Extended Phase I (XPI) study is an extension of the identification phase, meeting the requirements of 36 CFR 800.4(b) and Section 106 PA Stipulation VIII B. “to identify historic properties within the area of potential effects” and similar requirements under CEQA. The goal of the XPI study is to define part or all of the boundaries (horizontal or vertical) of an archaeological site.
- *Historical Resource Evaluation Report (HRER):* The purpose of the HRER is to identify built environment resources that are 50 or more years old within the APE and evaluate eligibility for listing in the National Register of Historical Places (National Register) and California Register of Historical Resources. The HRER is used to document identification, recordation, and evaluation efforts for historical archaeological resources, built environment resources, such as buildings, structures, objects, districts, and linear features (Tremaine 2014b).

The archaeological Area of Potential Effects (APE) occupies approximately 6.05 acres, which includes a paved portion of Bucks Bar Road, a segment of the North Fork Cosumnes River, unpaved graded areas, and unpaved vegetated areas. The APE encapsulates the maximum area needed for the construction of the proposed Project. Because ground-disturbing work will occur as a result of implementing the proposed project, the proposed Project has the potential to affect historic and prehistoric cultural resources, including any historic properties within the APE. Fieldwork for the ASR included a pedestrian survey of the APE conducted on November 5, 2014. The XPI investigation, which consisted of the excavation of ten shovel test units (STUs), occurred January 26, 27 and February 2, 2105. All fieldwork was monitored by a Native American representative.

The HRER identified three historic-period built environment resources within the APE: Old Bucks Bar Road; Elmira Hutton Cabin; and Bridge 25C0003. The HRER evaluates the eligibility of these three features for listing in the National Register of Historic Properties (NRHP) and California Register of Historic Resources (CRHR) at the local level. Bridge 25C0003 was evaluated by Caltrans as part of a statewide bridge survey and was determined not eligible for listing in the NRHP (McMorris 2004).

The El Dorado County General Plan Environmental Impact Report (EIR) lists NRHP/CRHR Listed Properties in unincorporated El Dorado County in Table 5.13-1 (El Dorado County 2004a). The General

Plan EIR references that “More than 1,300 prehistoric and historic cultural resources had been documented within the county as of 2002.”

The following three paragraphs are quoted from the cultural resources chapter of the General Plan EIR:

Many prehistoric and historic cultural resources in El Dorado County have been determined eligible or likely are eligible for inclusion on the CRHR and the NRHP. Each register uses similar criteria and sites eligible for CRHR listing are also potentially eligible for inclusion on the NRHP.

Determining the CRHR eligibility of historic and prehistoric properties is guided by CCR §§15064.5(b) and Public Resources Code (PRC) §§21083.2 and 21084.1. NRHP eligibility is based on similar criteria outlined in Section 106 of the NHPA (16 U.S. Code [USC] 470). In both the CRHR and NRHP, cultural resources are defined as buildings, sites, structures, or objects that may have historical, architectural, archaeological, cultural, or scientific importance. A cultural resource may be eligible for listing on the CRHR and/or NRHP if it:

- is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
- is associated with the lives of persons important in our past;
- embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual or possesses
- high artistic values; or
- has yielded, or may be likely to yield, information important in prehistory or history.

In California, if a prehistoric or historic resource does not necessarily meet any of the four CRHR criteria, but does meet the definition of a “unique” site as outlined in PRC §21083.2, it may still be treated as a significant resource. This is the case if it is an archaeological artifact, object or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- it contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information,
- it has a special and particular quality such as being the oldest of its type or the best available example of its type, or
- it is directly associated with a scientifically recognized important prehistoric or historic event.

El Dorado County does not have a historic properties ordinance.

Potential Environmental Effects

- a) ***Less Than Significant Impact.*** An intensive pedestrian survey and records search were conducted in support of the ASR and HRER. No historic resources were discovered in the Project area (Tremaine 2015b). The HRER concludes the following regarding the 3 historic-period built environment resources within the APE:

Old Bucks Bar Road: Bucks Bar Road was officially sited in 1857 and operated as a toll road from 1865 to 1886, when it became part of the county’s public road system. The road has served the same purpose as hundreds of other roads in the County and does not appear to be singularly

associated with any important event or person. Bucks Bar Road has no distinctive characteristics in terms of construction, design, or materials, and the physical property offers no data potential. As a result, Bucks Bar Road does not appear to meet the eligibility requirements of either the NRHP or CRHR (Tremaine 2015b).

Elmira Hutton Cabin: This single family residence was constructed in 1928, fronting a walkway along Bucks Bar Road. Historical data suggests the cabin was built for the daughter, Elmira Hutton, of long-time local landowner, Charles Williams. In 1970 the owners made significant changes to the building exterior and footprint. In 2002, the current owner made significant changes to the interior. Historical research could not find any association of the property with the Bucks Bar Road covered bridge (1914-1941) and had it, the significant changes to the cabin have altered it to the extent that it no longer retains its historical integrity except for location and setting. As a result, the property does not appear to meet the eligibility requirements of either the NRHP or CRHR (Tremaine 2015b).

Bucks Bar Bridge (No. 25C0003): The open spandrel concrete arch bridge carrying Bucks Bar Road traffic over the North Fork of the Cosumnes River was determined not eligible for listing in the NRHP by Caltrans. However, the bridge was not evaluated for eligibility under the local context. The HRER evaluated the local and regional historical context of Bridge 25C0003.

Bridge 25C0003 was constructed in 1941 to replace the covered bridge that had been constructed at the same site in 1914. The 1941 bridge does not appear to be associated with any significant local event or individuals and does not offer data potential that would be considered important in local history. As a result, it does not appear to meet the NRHP or CRHR eligibility requirements under criteria A, B, D, or 1, 2, and 4. A discussion NRHP eligibility criteria C and CRHR eligibility criteria 3 follows.

When constructed Bridge 25C0003 incorporated the pre-existing stacked-granite western abutment from the covered bridge. Use of pre-existing abutment material is not an uncommon occurrence. This same feature occurs at Bridge No. 25C0115 less than two miles south of the Bucks Bar Bridge. Unlike the Bucks Bar Road Bridge where the stacked rock is only visible on one side of the abutment, Bridge 25C0115 has stacked rock visible on both sides of the abutment, offering a better example of this reuse feature.

The Bucks Bar Bridge (No. 25C0003) is a very late example of the open spandrel concrete design, a style trend that waned by the mid-to late 1930s as the Art Moderne and International styles took hold. The Bucks Bar Bridge lacks special features that other bridges hailed as hallmarks of the open spandrel type use (lanterns, railings, pylons, texture, and other amenities). As a result, it relies on the most basic, yet most prominent, features of the open spandrel type—the sweeping arch—to be included as a conservative example of this bridge type.

In comparison with Bridge 25C0116 it appears a conservative approach to bridge amenities was the norm for this rural county and it was not the intent of the designer or builder to exhibit the transitional elements between the open spandrel and modern styles. As a result, Bucks Bar Bridge (No. 25C0003) lacks sufficient distinctive local significance to be eligible for listing in the NRHP under criterion C or the CRHR under Criterion 3 (Tremaine 2015b).

- b) **Potentially Significant Unless Mitigation Incorporated.** The presence of one archaeological site was confirmed during the pedestrian survey and subsequent subsurface excavations (Tremaine 2015a). The County will implement CULT-1 as described below to reduce potential impact to less than significant.

Measure CULT-1

- *The County will install ESA fencing and protective measures as shown in the ESA Action Plan and Additional Conditions Plan.*

- c) **No Impact.** Paleontological resources in El Dorado County are associated with limestone cave deposits, occurrences of the Mehrten formation, and Pleistocene channel deposits (El Dorado County 2004a). Because these resources do not occur in the project area, no impact will occur.
- d) **Less Than Significant Impact.** The Project ASR documents that no known cemeteries or burials occur within the project study area (Tremaine 2015). Should human remains be discovered during the excavation portion of the Project, the project description includes contract provisions that will require notification of Transportation and compliance with California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097.9 et seq.

4.2.6 Tribal Cultural Resources

VI. Tribal Cultural Resources:	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

The County proactively coordinated with local CNAs during preparation of the ASR and this CEQA document. Below is a summary of the two outreach meetings with CNAs:

23 September 2014: An outreach meeting was held at the project sites with members of various Native American Tribes to provide a Project overview and receive input regarding tribal concerns.

16 March 2015: A second outreach meeting was held at the project sites with members of various Native American Tribes to:

- Review updated project description & construction footprint;
- Review design modifications to minimize impacts cultural features;
- Review results of the Extended Phase I (XPI) investigation;
- Discuss potential impacts to specific cultural features; and
- Discuss plan to further minimize/protect cultural features during construction.

Potential Environmental Effects

- a) **Potentially Significant Unless Mitigation Incorporated.** The cultural site described in Section 4.2.5, Cultural Resources, may be a tribal cultural resource. No California Native American tribes that are traditionally and culturally affiliated with the geographic area of the proposed project have requested to be notified by El Dorado County pursuant to AB 52. Implementation of mitigation measure CULT-1 in Section 4.2.5 (Cultural Resources) will reduce potential impacts to tribal cultural resources to less than significant.

4.2.7 Geology and Soils

VII. GEOLOGY AND SOILS—Would the project:	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Regional Geology: El Dorado County is located in the Sierra Nevada geomorphic province of California, east of the Great Valley province and west of the Range and Basin provinces. Steep-sided hills and narrow rocky stream channels characterize the Sierra Nevada province. This province consists of Pliocene and older deposits that have been uplifted as a result of plate tectonics, granitic intrusion, and volcanic activity. Subsequent glaciations and additional volcanic activity are factors that led to the east-west orientation of stream channels. (El Dorado County 2004a).

The southwestern foothills of El Dorado County are composed of rocks of the Mariposa Formation that include amphibolite, serpentine, and pyroxenite. The northwestern areas of the county consist of the Calaveras Formation, which includes metamorphic rock such as chert, slate, quartzite, and mica schist. The higher peaks in the County consist primarily of igneous and metamorphic rocks with granite intrusions, a main soil parent material at the higher elevations (El Dorado County 2004a). The Project is not located within an area known to contain naturally occurring asbestos (NOA) or an area “more likely to contain naturally occurring asbestos” (California Department of Conservation 2000, El Dorado County 2005).

Seismicity: Seismicity is defined as the geographic and historical distribution of earthquake activity. Seismic activity may result in geologic and seismic hazards including seismically induced fault displacement and rupture, ground shaking, liquefaction, lateral spreading, landslides and avalanches, and structural hazards. Based on historical seismic activity and fault and seismic hazards mapping, El Dorado County is considered to have relatively low potential for seismic activity, and is located beyond the highly active fault zones of the coastal areas of California. The County’s fault systems and associated seismic hazards are described below (El Dorado County 2004a).

Fault Systems: Earthquakes are associated with the fault systems in a particular area. The distribution of known faults in El Dorado County is concentrated in the western portion of the county, with several isolated faults in the central county area and the Lake Tahoe Basin. Fault systems mapped in western El Dorado County include the West Bear Mountains Fault; the East Bear Mountains Fault; the Maidu Fault Zone; the El Dorado Fault; the Melones Fault Zone of the Clark, Gillis Hill Fault; and the Calaveras–Shoo Fly Thrust. .

No active faults have been identified in El Dorado County. One fault, part of the Rescue Lineament–Bear Mountains fault zone, is classified as a well located late-Quaternary fault; therefore, it represents the only potentially active fault in the county. All other faults located in El Dorado County are classified as pre-Quaternary (inactive).

Soils: Soils on the west slope of El Dorado County consist of well-drained silt and gravelly loams divided into two physiographic regions, the Lower and Middle Foothills and the Mountainous Uplands. There are a total of eight soil associations in western El Dorado County.

Mapped soil units in the Project area include Acidic Rock Land, Chaix very rocky coarse sandy loam 9-50 percent slopes, and Shaver coarse sandy loam 9-15 percent slopes (Sycamore Environmental 2015). Acidic Rock Land occurs in canyons and includes residuum weathered from granite and/or residuum weathered from rhyolite, runoff is very high. Chaix very rocky coarse sandy loam 9-50 percent slopes occurs on mountain slopes and are composed of residuum from granite, these soils are well drained and runoff is medium. Shaver coarse sandy loam 9-15 percent slopes occurs on mountain slopes and canyons these soils are well drained and runoff is low (NRCS 2015).

Potential Environmental Effects

- a) ***a-i-iv) No Impact.*** No active faults have been identified in El Dorado County. Therefore, the Project will not rupture a fault mapped on the most recent Alquist-Priolo Earthquake Fault Zoning Map. The Project is not in a seismic hazard zone (California Department of Conservation 2014b).

No portion of El Dorado County occurs in a Seismic Hazard Zone (i.e., regulatory zones that encompass areas prone to liquefaction and earthquake-induced landslides) based on the Seismic Hazards Mapping Program administered by the California Geologic Survey (CGS). Consequently, El Dorado County and the Project site are not considered to be at risk from liquefaction hazards or earthquake-induced landslides.

- b) **Less Than Significant Impact.** Contract provisions will require implementation of best management practices (BMPs) consistent with the Caltrans Stormwater Quality Handbooks to protect water quality and minimize the potential for siltation and downstream sedimentation. Construction activities will include implementation of stormwater runoff best management practices (BMPs). Application of these requirements and measures would prevent substantial erosion or topsoil loss. Areas temporarily disturbed will be revegetated and reseeded with native grasses and other native herbaceous annual and perennial species. No seed of nonnative species will be used unless certified to be sterile.
- c) **No Impact.** The project area is underlain by granitic bedrock of Mesozoic age (California Department of Conservation 2014a). Soils on site are not susceptible to landslide, lateral spreading, subsidence, liquefaction, or collapse. No impacts are anticipated from unstable soil.
- d) **Less Than Significant Impact.** Expansive soils that may swell enough to cause problems with paved surfaces are generally clays falling into the AASHTO A-6 or A-7 groups, or classified as CH, MH, or OH by the Unified Soil Classification System (USCS), with a Plasticity Index greater than about 25 as determined by ASTM D4318. Chapter 610 of the Caltrans Highway Design Manual (2012) defines and expansive subgrade to include soils with a Plasticity Index greater than 12 (Caltrans 2012).

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

AASHTO and USCS classification for the soils in the Project area are in listed Table 5 (NRCS 2015). The NRCS Web Soil Survey indicates the maximum plasticity index of soils in the Project area is two (2) (NRCS 2015). Soils in the Project area are not expansive.

Table 5. AASHTO and USCS soil classes for Project area

Soil Unit In Project Area	Classification	
	AASHTO	USDS
Acidic Rock Land	NA	NA
Chaix very rocky coarse sandy loam 9-50 percent slopes	A-2	SM (Silty sands, sand-silt mixtures)
Shaver coarse sandy loam 9-15 percent slopes	A-2	SM (Silty sands, sand-silt mixtures)

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

4.2.8 Greenhouse Gas Emissions

VIII. GREENHOUSE GAS EMISSIONS—Would the project:	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

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

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

CEQA does not provide explicit directions on addressing climate change. It requires lead agencies identify project GHG emissions impacts and their “significance,” but does not define what constitutes a “significant” impact. Not all projects emitting GHG contribute significantly to climate change. CEQA authorizes reliance on previously approved plans (i.e., a Climate Action Plan (CAP), etc.) and mitigation programs adequately analyzing and mitigating GHG emissions to a less than significant level. El Dorado County does not have an adopted CAP or similar program-level document; therefore, the project’s GHG emissions must be addressed at the project-level.

The El Dorado County Air Quality Management District’s (EDCAQMD) has not adopted GHG emissions significance thresholds for transportation or land use development projects. On October 23, 2014, the Sacramento Metropolitan Air Quality Management District (SMAQMD) Board of Directors adopted recommended GHG thresholds of significance for CEQA. The SMAQMD utilized guidance published by the California Air Pollution Control Officers Association, *CEQA & Climate Change, Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*, and a review of local projects in developing recommended greenhouse gas emissions thresholds of significance.

The SMAQMD Thresholds Committee undertook a process to apply the Bay Area AQMD's methodology regarding a Service Population (or Per Capita) Threshold to local projects to the Sacramento region. The SMAQMD Thresholds Committee determined that a per capita threshold would hold all projects, regardless of size, to the same GHG emissions analysis and mitigation standards. This approach is not cost-effective for small projects and could impede their development. The SMAQMD Thresholds Committee sought to develop a threshold that would ensure that at least 90 percent of emissions from projects in the region would be reviewed and analyzed to determine if additional mitigation should be required, while exempting small projects from the requirement to analyze GHG emissions and mitigate.

Given the lack of locally adopted GHG emissions significance thresholds the EDCAQMD allows the use of the SMAQMD thresholds. SMAQMD GHG Emissions Significance Thresholds are listed in Table 6.

Table 6. SMAQMD 2014 Approved GHG Emissions Significance Thresholds.

Significance Determination Thresholds	
GHG Emission Source Category	Threshold
Stationary Sources	10,000 direct metric tons of CO ₂ e per year (Operational impacts)
Land Development Projects	1,100 metric tons of CO ₂ e per year ¹ (Operational impacts)
All Construction Activities	1,100 metric tons of CO ₂ e per year

¹ The 1,100 metric tons of CO₂e per year threshold is roughly equivalent to 54 residential dwelling units, 63,000 square feet of office space, 29,000 square feet of general retail space, or 12,500 square feet of supermarket space.

Potential Environmental Effects

- a) ***Less Than Significant Impact.*** The proposed Project does not increase the capacity of Bucks Bar Road and would not increase operational GHG levels. Construction of the proposed Project would generate short-term emissions of greenhouse gases. The Sacramento Metropolitan Air Quality Management District (SMAQMD's) *Roadway Construction Emissions Model (RCEM) Version 7.1.5.1* was used to estimate reactive organic gasses (ROG) and CO₂ emissions from the proposed Project. The same RCEM assumptions used in the air quality analysis were used here.

GHG emissions generated by Project construction would be primarily in the form of CO₂.

Emission of other GHGs, such as CH₄ and N₂O, are important with respect to global climate change but the emissions levels of these other GHGs from on and off-road vehicles used during construction are relatively small compared to the level of CO₂ emissions, even when factoring in the relatively larger global warming potential of CH₄ and N₂O. Therefore the primary focus of this analysis is the level of CO₂ emissions from construction of the Project.

The EPA's 'Greenhouse Gas Equivalencies Calculator' provides users a means to convert various emissions data into CO₂ equivalencies (CO₂e). Results from the Roadway Construction Emissions Model were entered into the EPA calculator to determine the total estimated Project CO₂e. The Project will require a total construction period of approximately 12 months or ± 360 days to complete. The EPA calculator does not have a conversion for 'ROG' to CO₂e. For the conversion of ROG to CO₂e, methane (CH₄) was substituted for ROG. Methane was chosen

because pound for pound, the comparative impact of CH4 on climate change is 25 times greater than CO2. Therefore using the methane conversion as a substitute for ROG would tend overestimate the amount of CO2e produced during Project construction.

Based on the Roadway Construction Emissions Model Project construction is estimated to produce approximately:

- ROG = 0.6 MT for Project.
- CO2 = 877.3 MT for Project

Using the EPA CO2e calculator the total estimated Project CO2e for the one year construction period is approximately 892 MT. The SMAQMD 2014 Approved GHG Emissions Significance Threshold for construction activities is 1,100 metric tons of CO2e per year. The proposed Projects construction GHG emissions are below the SMAQMD adopted thresholds for project construction. Project impacts are considered less than significant.

- b) **Less Than Significant Impact.** EDCAQMD has not yet adopted a qualified plan, policy, or regulation to reduce GHG emissions. Therefore, the most applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions is Assembly Bill (AB) 32, which codified the State’s future GHG emissions reduction targets.

ARB adopted the AB 32 Scoping Plan as a framework for achieving AB 32. The Scoping Plan outlines a series of technologically feasible and cost-effective measures to reduce statewide GHG emissions. These strategies are geared towards sectors and activities that generate significant amounts of GHGs. For example, the majority of measures address building, energy, waste and wastewater generation, goods movement, on-road transportation, water usage, and high global warming potential gases. Activities associated with the Project are not considered by the AB 32 Scoping Plan as having a high potential to emit GHGs. This statement is substantiated by the project-level emissions analysis, which demonstrates that the GHG emissions are below the SMAQMD adopted thresholds for project construction. Consequently, none of the AB 32 reduction strategies are applicable to construction of the project. Implementation of the Project would not conflict with implementation of AB 32.

4.2.9 Hazards and Hazardous Materials

IX. HAZARDS AND HAZARDOUS MATERIALS—Would the project:	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

quarter mile of an existing or proposed school?

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

Environmental Setting

A regulatory agency database review for locations included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (The Cortese list) was conducted as part of the Project Initial Site Assessment (Dokken 2011(b)). No listed hazardous materials or waste sites were reported within or near the project site.

Based on County records, regulatory database searches, and site visits, there are no signs of or any known hazardous materials in or adjacent to the project site. The existing bridge paint system may contain lead and the concrete abutments could possibly contain asbestos material.

Potential Environmental Effects

- a) ***Less Than Significant Impact.*** Small amounts of hazardous materials would be used during construction activities (i.e., equipment maintenance, fuel, solvents, roadway resurfacing and re-striping materials). Hazardous materials would only be used during construction of the Project, and any hazardous material uses would be required to comply with all applicable local, state, and federal standards associated with the handling and storage of hazardous materials. Use of hazardous materials in accordance with applicable standards ensures that any exposure of the public to hazard materials would have a less-than-significant impact.
- b) ***Potentially Significant Unless Mitigation Incorporated.*** Based on County records, regulatory database searches, and site visits, there are no signs of or any known hazardous materials. The existing bridge paint system may contain lead and the concrete abutments could possibly include asbestos containing material (ACM).

The existing cabin on APN 093-131-12 will be removed by the Project and could possibly contain lead based paint and or asbestos containing materials. Implementation of HAZ-1 will reduce potential impacts to less than significant.

Measure HAZ-1

- *Contract provisions will require an asbestos and lead-based paint survey prior to modifications/ demolition of the existing residential structure (APN 093-131-12) or other buildings or structures that may be altered or modified to accommodate the planned construction. The asbestos survey will be performed by an EPA accredited asbestos professional or other qualified professional. The lead-based paint survey will be performed by a California Department of Health Services (Cal-DHS) Lead Inspector/Assessor or other qualified professional.*
 - *Contract provisions will require the existing yellow striping and pavement marking materials be handled in accordance with Caltrans Standard Special Provision 14-11.07 (Remove Yellow Traffic Stripe And Pavement Marking With Hazardous Waste Residue).*
 - *Contract provisions will require ACM be handled in accordance with Caltrans Non-Standard Special Provision 14-11.11, Management of Asbestos Containing Materials.*
- c) **No Impact.** No existing or proposed schools occur within 0.25 mile of the Project site. The closest school in the Somerset area is the Gold Oak Elementary School, approximately 2.6 miles to the north. The Pioneer Union School and the Mountain Creek Middle School are located approximately 3.1 miles south of the Project site. As noted above, the Project would involve the short- term handling of hazardous materials during construction. Handling and storage of hazardous materials during construction would comply with all applicable local, state, and federal standards.
- d) **No Impact.** No listed hazardous materials or waste sites occur within or near the project site.
- e) **No Impact.** The Project is not located within two miles of a public airport or public use airport and no private air strips occur in close proximity to the Project.
- f) **No Impact.** See response of item e) above.
- g) **Less Than Significant Impact.** Bucks Bar Road will remain open during construction and motorists will make use of the existing bridge during construction. The Project will not require a detour. Project construction activities would be coordinated with local law enforcement and emergency services providers.
- h) **Less Than Significant Impact.** The completed Project will not expose people or structures to a new or increased significant risk of loss, injury or death involving wildland fires.

4.2.10 Hydrology and Water Quality

	Potentially Significant Impact	Potentially Significant Unless 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

which permits have been granted)?

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f) Otherwise substantially degrade water quality? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| j) Inundation by seiche, tsunami, or mudflow? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Environmental Setting

North Fork Cosumnes River is a natural community of special concern because it is a potential waters of the U.S. North Fork Cosumnes River is mapped as a perennial river on the USGS Standard quad map. The North Fork Cosumnes River watershed begins in the Sierra Nevada Mountains to the northeast and flows south-southwest to the Cosumnes River which drains to the Mokelumne River. The Cosumnes River is not dammed.

The FEMA/FIRM panel 0800E of Map Number 06017C0800E with an effective date of September 26, 2008 shows a Zone A flood hazard zone on both sides of the North Fork Cosumnes River upstream of Bucks Bar Road. No flood zones are mapped on the North Fork Cosumnes River for over 1.5 miles downstream of Bucks Bar Bridge.

WRECO prepared a Location Hydraulic Study for the proposed Project (May 2015) to examine and analyze the existing floodplain within the Project limits, to document potential impacts to or encroachments on the floodplain resulting from the proposed Project.

The 100-year peak discharge for North Fork Cosumnes River was estimated using the regional regression equations developed by the United States Geological Survey. These equations are based on annual peak-flow data through water year 2006 for 771 streamflow-gaging stations in California having 10 or more years of data. California is divided into six regions and the Project site is within the Sierra Nevada region. These regional regression equations are generally used to estimate stream flow for ungaged sites that are

not affected by substantial urban development and that are natural (unregulated) streams. The equations updated in 2012 were used in support of the Project's hydrologic analysis.

The hydraulics of the existing and proposed conditions were analyzed using the United States Army Corps of Engineers' (USACE's) Hydrologic Engineering Centers River Analysis System (HEC-RAS) Version 4.1.0 hydraulic modeling software.

The Project would not increase the water surface elevations (WSEs) within the Project vicinity. In contrast, the Project would result in a decrease in WSEs of approximately 4.8 ft upstream of the bridge (WRECO 2015).

Potential Environmental Effects

- a) ***Potentially Significant Unless Mitigation Incorporated.*** The bridge replacement will not violate water quality or waste discharge requirements. The Project will disturb over one acre of soil and requires a Section 402 NPDES permit. Implementation of BIO-2 and the revegetation measures and water quality BMPs in HYDRO-1 will ensure long-term soil stabilization and protect water quality during construction.

Measure HYDRO-1

- *Areas temporarily disturbed will be revegetated and reseeded with native grasses and other native herbaceous annual and perennial species in accordance. No revegetation is needed on areas of existing bare rock/granitic boulders. Reseeded areas will be covered with a biodegradable erosion control fabric to prevent erosion and downstream sedimentation. The project engineer will determine the specifications needed for erosion control fabric (e.g., shear strength) based on anticipated maximum flow velocities and soil types. The seed type will consist of commercially available native grass and herbaceous species. No seed of nonnative species will be used unless certified to be sterile.*
 - *Contract provisions will require implementation of best management practices (BMPs) consistent with the Caltrans Stormwater Quality Handbooks to protect water quality and minimize the potential for siltation and downstream sedimentation.*
- b) ***No Impact.*** The Project would not involve any withdrawals from an aquifer or groundwater table.
- c) ***No Impact.*** The May 2015 Location Hydraulic Study prepared by WRECO concludes the Project would not increase the water surface elevations (WSEs) within the Project vicinity. The WRECO report concludes that 'Although the replacement bridge would result in a small increase in impervious surface area within the Project limits, it would have an insignificant impact on the watershed runoff.'
- d) ***Less Than Significant Impact.*** See response to item a) and c) above.
- e) ***Less Than Significant Impact.*** The Project would not provide additional sources of runoff compared with the existing bridge. The minor increase of impervious surface area resulting from construction of the approaches and wider bridge deck is not expected to contribute to a substantial increase in water runoff from the site.
- f) ***Less Than Significant Impact.*** No additional impacts other than those discussed above are anticipated.

- g) **No Impact.** The Project is a bridge replacement project, and no housing development is associated with the Project.
- h) **Less Than Significant Impact.** The FEMA/FIRM panel 0800E of Map Number 06017C0800E with an effective date of September 26, 2008 shows a Zone A flood hazard zone on both sides of the North Fork Cosumnes River upstream of Bucks Bar Road. No flood zones are mapped on the North Fork Cosumnes River for over 1.5 miles downstream of Bucks Bar Bridge. The bridge replacement has been designed as a single span bridge at a higher soffit (bottom of the bridge) elevation, which allows more water to flow under the bridge, thus reducing flood impacts upstream.
- i) **No Impact.** The Project will not expose people to higher levels of risk involving flooding. General Plan Policy 6.4.2.2 protects the life and property of County residents below dams by not allowing new critical or high occupancy structures (e.g., schools, hospitals) to be located within the inundation area resulting from failure of dams. The bridge is not a critical or high occupancy structure.
- j) **No Impact.** The Project is not in an area subject to seiche or tsunami.

4.2.11 Land Use and Planning

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

Environmental Setting

The 2004 El Dorado County General Plan is the relevant land use plan for the project area. The General Plan land use and zoning designations of the parcels in the Project area are listed in the following Table.

Table 7. General Plan Land Use and Zoning Designations.

APN	General Plan Designation	
	Land use	Zoning
093-131-07	Commercial	Estate Residential Five –Acre and Planned Commercial
093-120-32	Natural Resources, 1 DU/ 40ac	Residential Agriculture Twenty acre
093-131-05	Low Density Residential 1 DU/ 5ac	Estate Residential Five –Acre

093-131-12	Low Density Residential 1 DU/ 5ac	Estate Residential Ten –Acre
093-131-13	Low Density Residential 1 DU/ 5ac	Estate Residential Ten –Acre
093-131-15	Low Density Residential 1 DU/ 5ac	Estate Residential Ten –Acre
093-131-16	Low Density Residential 1 DU/ 5ac	Estate Residential Ten –Acre
093-131-33	Low Density Residential 1 DU/ 5ac	Residential Agriculture Twenty acre
093-131-34	Low Density Residential 1 DU/ 5ac	Estate Residential Five –Acre

Potential Environmental Effects

- a) **No Impact.** The Project proposes to replace the existing bridge on substantially the same alignment and would not physically divide an established community.
- b) **No Impact.** The Project would not conflict with the goals, objectives or policies intended to mitigate environmental impacts adopted in the 2004 El Dorado County General Plan. Rehabilitation or replacement of the existing bridge was identified as a needed improvement since 2008. The Project is identified in the El Dorado County Adopted Capital Improvement Program (CIP) as CIP # 77116 (El Dorado County 2014).
- c) **No Impact.** The Project does not occur in an area covered by a habitat or natural community conservation plan. El Dorado County is currently preparing an Integrated Natural Resources Management Plan to identify important habitats in the County and establish a program for the management and preservation.

The parcels in the Project area have an Important Biological Corridor (IBC) overlay designation. This designation was developed specifically to protect biological resources in the foothill region where they are most threatened by development. The IBC overlay designation identifies core areas important for wildlife forage, cover, and migration, and areas of relatively intact native vegetation in more urbanized areas of the County. The intent of this overlay designation is to provide continuous corridors of vegetation and to provide connectivity between areas of more extensive natural vegetation or greater environmental protection. The Project proposes to replace the existing bridge and would not significantly affect vegetation corridors designated by the IBC or conflict with the intent of the IBC overlay.

4.2.12 Mineral Resources

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

Environmental Setting

El Dorado County is considered a mining region capable of producing a wide variety of mineral resources. Metallic mineral deposits, gold in particular, are considered the most significant extractive mineral resource. Other metallic minerals found in the county include silver, copper, nickel, chromite, zinc, tungsten, mercury, titanium, platinum, and iron. Nonmetallic mineral resources include building stone, limestone, slate, clay, marble, soapstone, sand, and gravel (El Dorado County 2004a). The Project area is not located in an area mapped as an ‘Important Mineral Resource Area’ (El Dorado County 2004b).

Potential Environmental Effects

- a) ***No Impact.*** The Project area is not located in an area mapped as an ‘Important Mineral Resource Area’ (El Dorado County 2004b). The Project would not impact the availability of mineral resources that are locally important or would be of value to the state.
- b) ***No Impact.*** See response to item a).

4.2.13 Noise

XIII.NOISE—Would the project:	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project 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"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The July 2004 El Dorado County General Plan Public Health, Safety, and Noise Element establishes policies and standards for noise exposures at noise sensitive land uses. The relevant policies are listed below:

Policy 6.5.1.9 Noise created by new transportation noise sources, excluding airport expansion but including roadway improvement projects, shall be mitigated so as not to exceed the levels specified in Table 6-1 at existing noise-sensitive land uses.

The following Table presents the maximum allowable noise exposure from transportation noise sources from the County General Plan (Table 6-1) as presented in General Plan Policy 6.5.1.12.

Policy 6.5.1.12 When determining the significance of impacts and appropriate mitigation for new development projects, the following criteria shall be taken into consideration.

- A. Where existing or projected future traffic noise levels are less than 60 dBA L_{dn} at the outdoor activity areas of residential uses, an increase of more than 5 dBA L_{dn} caused by a new transportation noise source will be considered significant;
- B. Where existing or projected future traffic noise levels range between 60 and 65 dBA L_{dn} at the outdoor activity areas of residential uses, an increase of more than 3 dBA L_{dn} caused by a new transportation noise source will be considered significant; and
- C. Where existing or projected future traffic noise levels are greater than 65 dBA L_{dn} at the outdoor activity areas of residential uses, an increase of more than 1.5 dBA L_{dn} caused by a new transportation noise will be considered significant.

Table 8. Maximum allowable noise exposure for transportation noise sources (General Plan Table 6-1).

TABLE 6-1 MAXIMUM ALLOWABLE NOISE EXPOSURE FOR TRANSPORTATION NOISE SOURCES			
Land Use	Outdoor Activity Areas¹ L_{dn}/CNEL, dB	Interior Spaces	
		L_{dn} /CNEL, dB	L_{eq}, dB²
Residential	60 ³	45	--
Transient Lodging	60 ³	45	--
Hospitals, Nursing Homes	60 ³	45	--
Theaters, Auditoriums, Music Halls	--	--	35
Churches, Meeting Halls, Schools	60 ³	--	40
Office Buildings	--	--	45
Libraries, Museums	--	--	45
Playgrounds, Neighborhood Parks	70	--	--
Notes:			
¹ In Communities and Rural Centers, where the location of outdoor activity areas is not clearly defined, the exterior noise level standard shall be applied to the property line of the receiving land use. For residential uses with front yards facing the identified noise source, an exterior noise level criterion of 65 dB L_{dn} shall be applied at the building facade, in addition to a 60 dB L_{dn} criterion at the outdoor activity area. In Rural Regions, an exterior noise level criterion of 60 dB L_{dn} shall be applied at a 100 foot radius from the residence unless it is within Platted Lands where the underlying land use designation is consistent with Community Region densities in which case the 65 dB L_{dn} may apply. The 100-foot radius applies to properties which are five acres and larger; the balance will fall under the property line requirement.			
² As determined for a typical worst-case hour during periods of use.			

³ Where it is not possible to reduce noise in outdoor activity areas to 60 dB L_{dn} /CNEL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB L_{dn} /CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

County General Plan Policy 6.5.1.11 outlines standards for daytime construction and would apply to construction-related noise associated with the Project. General Plan Policy 6.5.1.11 notes that night time construction activities are allowed if it can be shown that nighttime construction activities would alleviate traffic congestion and safety hazards. The significance of noise impacts associated with operation of transportation facilities is normally measured using General Plan Policy 6.5.1.12, which takes into account the existing (ambient) noise environment. Because the Project is not capacity increasing and would not result in an increase of the number of vehicles passing through the roadway corridor, the ambient condition is not expected to change as a result of the Project.

Potential Environmental Effects

- a) ***(Construction Noise) Less Than Significant Impact.*** Construction activities could increase noise levels temporarily in the vicinity of the Project. Actual noise levels would depend on the type of construction equipment involved, distance to the source of the noise, time of day, and similar factors. These increases would be temporary. Daytime construction would comply with noise standards for construction activities outlined in General Plan Policy 6.5.1.11, and any nighttime work would be allowed if nighttime construction activities would alleviate traffic congestion and safety hazards. Given that the Project contractor would adhere to applicable County construction-related noise standards, this impact considered less than significant.
- (Operational Traffic Related Noise) No Impact.*** The Project does not increase the capacity of Bucks Bar Road. The post project noise levels in the Project vicinity will be substantially unchanged from the pre-project condition
- b) ***Less Than Significant Impact.*** Project construction includes activities, such as operation of large pieces of equipment (e.g., heavy trucks) which may result in the periodic, temporary generation of ground-borne vibration. Because the Project would not expand the roadway or change the way in which it is used, an increase in ground-borne vibration associated with use of the road would not change from the current condition. Given the nature of any potential ground-borne vibration and given that any impacts would be temporary and periodic, potential impacts are less than significant.
- c) ***No Impact.*** The Project is not traffic- or growth inducing and would not change the way in which the roadway is used. The Project would not contribute to a substantial permanent increase in the ambient noise level in the project vicinity.
- d) ***Less Than Significant Impact.*** Construction activities would increase noise levels temporarily in the vicinity of the Project. Actual noise levels would depend on the type of construction equipment involved, distance to the source of the noise, weather, time of day, and other factors. However, these increases would be temporary. Daytime construction activity would comply with noise standards for construction activities outlined in General Plan Policy 6.5.1.11, and any nighttime work would be allowed if nighttime construction activities would alleviate traffic

congestion and safety hazards. Because the Project contractor would be required to comply with applicable County construction-related noise standards, this impact is considered less than significant.

- e) **No Impact.** The Project is not located within an airport land use plan area or within two miles of a public or public use airport.
- f) **No Impact.** The Project is not located within the vicinity of a private airstrip.

4.2.14 Population and Housing

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

Environmental Setting

The Project is the replacement of an existing bridge and will not increase the capacity of Bucks Bar Road.

Potential Environmental Effects

- a) **No Impact.** The Project will not result in substantial population growth in the area, directly or indirectly.
- b) **Less than significant.** The Project requires the acquisition of right-of-way including a portion of a property containing a single residential cabin. The County will implement the federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended and Title 49 Code of Federal Regulations (CFR) Part 24. All relocation services and benefits are administered without regard to race, color, national origin, or sex in compliance with Title VI of the Civil Rights Act (42 USC 2000d, et seq.).
- c) **Less than significant.** See response to item a) and b).

4.2.15 Public Services

XV. PUBLIC SERVICES—Would the project:	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The El Dorado County Sheriff provides general public safety and law enforcement services. The El Dorado County Fire District’s station 23 located at 1834 Pleasant Valley Road provides fire protection services and emergency services. The County maintains public facilities including the project area roadways and bridges.

Potential Environmental Effects

- a) ***No Impact.*** Replacement of the existing bridge would not increase human presence in the area. No new or physically altered governmental facilities would be needed.

4.2.16 Recreation

XVI. RECREATION:	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input 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"/>

Environmental Setting

There are no designated recreation facilities within or immediately adjacent to the proposed project area. An access path to the Cosumnes River Gorge occurs approximately 0.4 mile north of the Project site along Bucks Bar Road. The path provides public access to the Cosumnes River Gorge downstream of the Project area.

Potential Environmental Effects

- a) **No Impact.** The Project would not increase the use of existing parks in the area and does not include the construction of any recreational facilities.
- b) **No Impact.** The Cosumnes River Gorge access path does not occur within the Project limits. The path connects to Bucks Bar Road approximately 0.4 mile north of the Project. The path provides public access to the Cosumnes River Gorge downstream of the Project area. The proposed Project would not affect the access path. No public access from the bridge to the access path currently exists. The Project does not include the construction of any recreational facilities and would not expand existing recreational facilities.

4.2.17 Transportation/Traffic

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

Environmental Setting

Bucks Bar Road is off-system an east-west, two-lane, rural major collector connecting Pleasant Valley Road, with Mount Aukum Road, near the community of Somerset in El Dorado County (Caltrans 2014). The 2012 Average Daily Traffic (ADT) at the bridge is approximately 4,500 vehicles per day and is forecast to be 8,696 in 2032 (Caltrans 2013).

Potential Environmental Effects

- a) **No Impact.** Replacement of the existing one lane bridge would not change the amount of traffic on Bucks Bar Road because it is not a new development or growth inducing project. The Project will not require a detour. Project construction activities would be coordinated with local law enforcement and emergency services providers.
- b) **No Impact.** The bridge replacement would not change the amount of traffic on Bucks Bar Road.
- c) **No Impact.** The Project would not result in a change in air traffic patterns.
- d) **No Impact.** The Project objectives include improving roadway safety and compliance with the American Association of Highway and Transportation Officials (AASHTO) design guidelines and El Dorado County standards.
- e) **Less than Significant.** Bucks Bar Road will remain open during construction and motorists will make use of the existing bridge during construction. The Project will not require a detour. Project construction activities would be coordinated with local law enforcement and emergency services providers.
- f) **No Impact.** The Project would not result in an increase in demand for parking in the vicinity of the Project.
- g) **No Impact.** The Project is identified in the El Dorado County Capital Improvement Program (CIP) as project # 77116 (El Dorado County 2014). The CIP is coordinated with the Five-Year major review of the General Plan (including the Transportation and Circulation Element) and is also included in the annual General Plan review. The Transportation and Circulation Element address alternative transportation systems.

4.2.18 Utilities/ Service Systems

XVIII. UTILITIES AND SERVICE SYSTEMS—Would the project:	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Comply with federal, state, and local statutes and regulations related to solid waste? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Environmental Setting

Overhead utilities within the Project limits include PG&E power and AT&T telephone. The utilities would be relocated south of the proposed bridge site prior to the construction of the new bridge. Temporary relocation would be required at the existing bridge site to accommodate bridge demolition. Relocation of overhead utility lines may require the County, utility provider, or their contractors to trim or remove trees prior to construction.

Potential Environmental Effects

- a) **No Impact.** The Project would not produce additional wastewater and would not exceed the applicable wastewater treatment requirements.
- b) **No Impact.** The Project would not increase the demand on existing water or wastewater treatment facilities.
- c) **Less than Significant Impact.** The Project may involve minor reconfiguration of the roadside drainage system within the project area. The facilities will retain approximately the same capacity as the existing system.
- d) **No Impact.** The Project would not require water service.
- e) **No Impact.** The Project would not produce wastewater.
- f) **No Impact.** Solid waste generated by the Project would be limited to construction debris, including asphalt and concrete, generated by the excavation of existing roadway and construction of the proposed improvements. Solid waste disposal would occur in accordance with federal, state, and local regulations. Disposal would occur at permitted landfills. Therefore, the Project would not generate the need for new solid waste facilities.
- g) **No Impact.** The Project would conform to all applicable state and federal solid waste regulations.

4.2.19 Mandatory Findings of Significance

XIX. MANDATORY FINDINGS OF SIGNIFICANCE (To be filled out by Lead Agency if required)	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

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

5. Determination

5.1 Environmental Factors Potentially Affected

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

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

On the basis of this initial evaluation:

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

Signature: 

Date: 7-17-15

Name and Title: Janet Postlewait, Principal Planner

6. Report Preparation and References

6.1 Report Preparation

El Dorado County Community Development Agency, Transportation Division– CEQA Lead Agency

Chandra Ghimire, P.E. Senior Civil Engineer

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Jeffery Little Vice President, Consulting
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Adam Forbes Biologist/ Planner

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Brian Hansen PE Associate Senior Bridge
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Tremaine & Associates, Inc.

Kim Tremaine, M.A., Ph.C., RPA Principal Investigator

Trish Fernandez, M.A. Principal Investigator

6.2 References

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

California Department of Fish and Wildlife (CDFW). September 2010 (2010b). Vegetation classification and mapping program: Natural Communities – List. Biogeographic Data Branch, Sacramento, CA.

California Department of Fish and Wildlife (CDFW). September 2010. Vegetation classification and mapping program: Natural Communities – List. Biogeographic Data Branch, Sacramento, CA.

- California Department of Transportation (Caltrans). 10 June 2013. Bridge Inspection Report and Structure Inventory and Appraisal Report Bridge Number 25C0003, Division of Maintenance, Structure Maintenance and Investigations, Bridge Inspection Records Information System.
- California Department of Transportation (Caltrans). 12 May 2014. California Road System (CRS) Maps, Map 8J. Prepared in Cooperation with FHWA and Local Agencies.
- California Environmental Quality Act (CEQA) Statutes. 1970. Public Resources Code Section 21000, et seq.
- Dokken Engineering. 10 April 2010. Final Feasibility Study Report, Bucks Bar Road Bridge at North Fork Cosumnes River. Prepared for El Dorado County, Prepared By Dokken Engineering.
- Dokken Engineering. 22 April 2011(a). Bucks Bar Bridge Replacement Project, Visual Assessment. Prepared for: Mr. Michael McCollum, Local Assistance, Caltrans District 3, Prepared By: Emilio Viramontes, Landscape Architect, Dokken Engineering.
- Dokken Engineering. April 2011(b). Bucks Bar Bridge Replacement Project, Hazardous Waste Initial Site Assessment. Prepared for El Dorado County, Prepared By Dokken Engineering.
- El Dorado County Air Quality Management District (AQMD). February 2002. Guide to air quality assessment, determining significance of air quality impacts under the California Environmental Quality Act.
- El Dorado County. 2005. El Dorado County Asbestos Review Areas Western Slope, County of El Dorado. El Dorado County Surveyor/G.I.S. Division, G.I.S. Project Id: 3089a.
- El Dorado County. January 2004, Certified 19 July 2004 (2004a). El Dorado County general plan, final environmental impact report (EIR). Resolution No. 234-2004, State Clearinghouse No. 2001082030. Prepared by EDAW.
- El Dorado County. Adopted 19 July 2004 (2004b). El Dorado County general plan, a plan for managed growth and open roads; a plan for quality neighborhoods and traffic relief. El Dorado County Planning Department, Placerville, CA.
- El Dorado County, Community Development Agency, Transportation Division. 24 June 2014 (Accessed: June 2015). Adopted 2014 Capital Improvement Programs for: West Slope Road/Bridge; Tahoe Environmental Improvement Program; Airport Program; Transportation Facilities Improvement Program; Capital Overlay and Rehabilitation; Road Maintenance Program, National Pollutant Discharge Elimination System. Available: <http://www.edcgov.us/Government/DOT/CIP.aspx>.
- El Dorado County, Community Development Agency, Transportation Division. June 2015. CHP Accident Database maintained by El Dorado County CDA Transportation.
- Governor's Office of Planning and Research (OPR). 19 June 2008. Technical advisory: CEQA and climate change: Addressing climate change through California Environmental Quality Act (CEQA) Review. Sacramento, CA. <http://www.opr.ca.gov/ceqa/pdfs/june08-ceqa.pdf>.
- McMorris, C. 2004. Caltrans Historic Bridges Inventory Update: Concrete Arch Bridges. Prepared by JRP Historical Consulting for Caltrans Headquarters, Sacramento.
- Natural Resources Conservation Service (NRCS). Accessed April 2015. Web soil survey for El Dorado County. National Soil Survey Center, Lincoln, NE. <<http://websoilsurvey.nrcs.usda.gov/app/>>
- Sacramento Area Council of Governments. 2012. *Metropolitan Transportation Plan/Sustainable Communities Strategy 2035*. Available: <http://www.sacog.org/2035/mtpscs/>. Accessed: June 2015.
- Sycamore Environmental Consultants, Inc. June 2015. Natural Environment Study, Bucks Bar Road at the North Fork Cosumnes River Bridge (25C0003) Replacement, El Dorado County, CA.
- T.Y. Lin International. 6 September 2015. Bucks Bar Road at Cosumnes River North Fork, Bridge No. BR 25C0003, Rehabilitation or Replacement Project, Federal Project No. BRLS-5925(051), DRAFT PROJECT GEOMETRIC DESIGN CRITERIA MEMORANDUM. Prepared for El Dorado County, Prepared By T.Y. Lin International.
- T.Y. Lin International and El Dorado County, Community Development Agency, Transportation Division. 30 April 2014. Supplemental Feasibility Study Report, Bucks Bar Road Bridge at North Fork Cosumnes River. Prepared for El Dorado County, Prepared By T.Y. Lin International.
- Tremaine & Associates, Inc. June 2015 (2015a). Archaeological Survey and Extended Phase I Investigation Report, Bridge No. 25C003, Bucks Bar Road at the North Fork Cosumnes River Bridge Replacement Project.

Tremaine & Associates, Inc. May 2015 (2015b). Historical Resources Evaluation Report, Bridge No. 25C003, Bucks Bar Road at the North Fork Cosumnes River Bridge Replacement Project.

U.S. Environmental Protection Agency (EPA). Accessed May 2015. Overview of Greenhouse Gases.
<http://www.epa.gov/climatechange/ghgemissions/gases.html>.

WRECO. October 2009. DRAFT Location Hydraulic Study Report: Bucks Bar Road Bridge Replacement Project, El Dorado County, Federal Project Number BRLS-5925(051), Existing Bridge No. 25C0003.

WRECO. May 2015. Location Hydraulic Study Report: Bucks Bar Road Bridge Replacement Project, El Dorado County, Federal Project Number BRLS-5925(051), Existing Bridge No. 25C0003.

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Appendix A: Mitigation Monitoring and Reporting Plan

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**MITIGATION MONITORING AND REPORTING PLAN
BUCKS BAR ROAD AT THE NORTH FORK COSUMNES
RIVER BRIDGE (25C0003) REPLACEMENT PROJECT**

**CEQA LEAD AGENCY:
El Dorado County**

**PREPARED:
July 2015**

**REVISED:
September 2015**

ADOPTED BY BOARD OF SUPERVISORS ON: _____

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Introduction

Purpose

The El Dorado County Community Development Agency, Transportation Division, (Transportation) intends to replace the existing Bucks Bar Road Bridge over the North Fork Cosumnes River. The existing bridge is located along Bucks Bar Road approximately 1.2 miles north of Mount Aukum Road.

As described in the IS/MND, the Project itself incorporates a number of measures to minimize adverse effects on the environment. The IS/MND also identified several mitigation measures that are required to reduce potentially significant impacts to levels that are less than significant. This Mitigation Monitoring and Reporting Plan (MMRP) describes a program for ensuring that these mitigation measures are implemented in conjunction with the Project. El Dorado County Transportation, as the lead agency under the California Environmental Quality Act (CEQA), is responsible for overseeing the implementation and administration of this MMRP. The County will designate a staff member to manage the MMRP. Duties of the staff member responsible for program coordination will include conducting routine inspections and reporting activities, coordinating with the Project construction contractor, coordinating with regulatory agencies, and ensuring enforcement measures are taken.

Regulatory Framework

California Public Resources Code Section 21081.6 and California Code of Regulations Title 14, Chapter 3, Section 15097 require public agencies to adopt mitigation monitoring or reporting plans when they approve projects under a MND. The reporting and monitoring plans must be adopted when a public agency makes its findings pursuant to CEQA so that the mitigation requirements can be made conditions of Project approval.

Format of This Plan

The MMRP summarizes the impacts and mitigation measures identified and described in the Project IS/MND. Each of the impacts discussed within this MMRP is numbered based on the sequence in which they are discussed in the IS/MND. A summary of each impact with the corresponding specific mitigation measures are provided. Mitigation measures are followed by an implementation description, the criteria used to determine the effectiveness of the mitigation, the timeframe for implementation, and the party responsible for monitoring the implementation of the measure.

Implementation of mitigation measures is ultimately the responsibility of Transportation; during construction, the delegated responsibility is shared by Transportation's contractors. Each mitigation measure in this plan contains a "Verified By" signature line, which will be signed by the Transportation Project manager when the measure has been fully implemented and no further actions or monitoring are necessary for the implementation or effectiveness of the measure.

Impacts and Associated Monitoring or Reporting Measures

4.2.5 BIOLOGICAL RESOURCES

Impact (a): Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

Foothill Yellow-Legged Frog (FYLF) and Western Pond Turtle (WPT)

Avoidance and minimization measure to protect North Fork Cosumnes River will also protect FYLF and WPT. Implementation of BIO-1 will ensure that the Project has a less than significant effect on FYLF and WPT.

Measure BIO-1

- *If FYLF or WPT are found at any time during project work, construction will stop and CDFW will be contacted immediately for further guidance.*
- *Staging areas as well as fueling and maintenance activities shall be a minimum of 100 ft from riparian or aquatic habitats. The project proponent will prepare a spill prevention and clean-up plan.*
- *The project will administer Best Management Practices (BMPs) to protect water quality and control erosion.*
- *Upon completion of construction activities, any barriers to flow shall be removed in a manner that would allow flow to resume with the least disturbance to the substrate.*
- *Environmental awareness training will be given to construction personnel by a CDFW-approved biologist to brief them on how to recognize FYLF and WPT. Construction personnel will also be informed that if a FYLF or WPT is encountered in the work area, construction will cease. The Resident Engineer, in consultation with the project biologist, will determine if work may resume while protecting the species. CDFW will be notified.*
- *Plastic mono-filament netting (erosion control matting) or similar material containing netting shall not be used. Acceptable substitutes include coconut coir matting or tackified hydroseeding components.*

Implementation: The County will implement the measures as described above.

Effectiveness The County will prepare and keep on file documentation

Criteria: verifying the implementation of the above-referenced measures.

Timing: Pre-Construction Phase and Construction Phase

Verified By: _____ **Date:** _____

County Project Manager

California Red Legged Frog (CRLF)

Avoidance and minimization measure to protect North Fork Cosumnes River will also protect CRLF. BIO-2 lists the CRLF avoidance and minimization efforts described in the 2011 NES and conservation measures from USFWS (2011). Implementation of BIO-2 will ensure that the Project has a less than significant effect on CRLF.

Measure BIO-2

- *If the CRLF is found at any time during project work, construction will stop and USFWS will be contacted immediately for further guidance.*
- *Staging areas as well as fueling and maintenance activities shall be a minimum of 100 ft from riparian or aquatic habitats. The project proponent will prepare a spill prevention and clean-up plan.*
- *The project will administer Best Management Practices (BMPs) to protect water quality and control erosion.*
- *Upon completion of construction activities, any barriers to flow shall be removed in a manner that would allow flow to resume with the least disturbance to the substrate.*
- *Environmental awareness training will be given to construction personnel by a USFWS-approved biologist to brief them on how to recognize CRLF. Construction personnel will also be informed that if a CRLF is encountered in the work area, construction will cease and the USFWS will be called for guidance before any construction activities are resumed.*
- *Plastic mono-filament netting (erosion control matting) or similar material containing netting shall not be used at the Project area because the CRLF or other animals may become entangled or trapped in it. Acceptable substitutes include coconut coir matting or tackified hydroseeding components.*

Implementation: The County will implement the measures as described above.

Effectiveness The County will prepare and keep on file documentation

Criteria: verifying the implementation of the above-referenced measures.

Timing: Pre-Construction Phase and Potential Construction Phase

Verified By: _____ Date: _____
County Project Manager

Birds Of Prey and Migratory Bird Treaty Act

The Project area provides potential nesting habitat for birds of prey and birds listed by the Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711). BIO-3 will be implemented to avoid impacts to birds of prey and birds listed by the MBTA.

Measure BIO-3

Under the MBTA, nests that contain eggs or unfledged young are not to be disturbed during the breeding season. Nesting or attempted nesting by migratory birds and birds-of-prey is anticipated from 15 February through 1 September.

Swallow

In California, bridge-nesting swallows typically arrive in mid-February, increase in numbers until late March, and remain until October. Nesting begins in April, peaks in June, and continues into August. Measures should be taken to prevent establishment of cliff swallow nests prior to construction. Techniques to prevent nest establishment include using exclusion devices, removing and disposing of partially constructed and unoccupied nests of migratory or nongame birds on a regular basis to prevent their occupation, or perform any combination of these. This can be done by:

- *The contractor can visit the site weekly and remove partially completed nests using either hand tools or high pressure water; and/or*
- *Hang netting from the bridge before nesting begins. If this technique is used, netting should be in place from late February until project construction begins.*

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

- *If construction begins outside the 15 February to 1 September breeding season, there will be no need to conduct a preconstruction survey for active nests.*
- *Trees scheduled for removal should be removed during the non-breeding season from 2 September to 14 February.*
- *If construction is scheduled to begin between 15 February and 1 September, a biologist shall conduct a survey for active bird of prey nests within 250 ft and active MTBA bird nests within 100 ft of the BSA from publicly accessible areas within one week prior to construction. The measures listed below shall be implemented based on the survey results.*

No Active Nests Found:

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

Active Nests Found:

- *If an active nest of a bird of prey, MBTA bird, or other CDFW protected bird is discovered that may be adversely affected by construction activities or an injured or killed bird is found, immediately:*
 1. *Stop all work within a 100-ft radius of the discovery.*
 2. *Notify the Engineer.*
 3. *Do not resume work within the 100-ft radius until authorized.*
- *The biologist shall establish a minimum 250-ft Environmentally Sensitive Area (ESA) around the nest if the nest is of a bird of prey, and a minimum 100-ft ESA around the nest if the nest is of an MBTA bird other than a bird of prey.*

Bird Species Protection Areas

<i>Protected Bird Type</i>	<i>Size of Protection Area (ESA)</i>
<i>Bird of prey</i>	<i>250 ft no-disturbance buffer</i>

MBTA protected bird (not bird of prey)	100 ft no-disturbance buffer
--	------------------------------

- *Activity in the ESA will be restricted as follows:*
 1. *Do not enter the ESA unless authorized.*
 2. *If the ESA is breached, immediately:*
 - a. *Secure the area and stop all operations within 60 feet of the ESA boundary.*
 - b. *Notify the Engineer.*
 3. *If the ESA is damaged, County determines what efforts are necessary to remedy the damage and who performs the remedy.*
- *No construction activity will be allowed in the ESA until the biologist determines that the nest is no longer active, or unless monitoring determines that a smaller ESA will protect the active nest.*
- *The size of an ESA may be reduced if the biologist monitors the construction activities and determines that no disturbance to the active nest is occurring. Reduction of ESA size depends on the species of bird, the location of the nest relative to the project, project activities during the time the nest is active, and other project-specific factors.*
- *Between 15 February and 1 September, if additional trees or shrubs need to be trimmed and/or removed after construction has started, a survey will be conducted for active nests in the area to be affected. If an active nest is found, the above measures will be implemented.*
- *If an active nest is identified in or adjacent to the construction zone after construction has started, the above measures will be implemented to ensure construction is not causing disturbance to the nest.*

Implementation: The County will implement the measures as described above.

Effectiveness The County will prepare and keep on file documentation

Criteria: verifying the implementation of the above-referenced measures.

Timing: Pre-Construction Phase (Potential Construction Phase)

Verified By: _____ **Date:** _____
County Project Manager

Plants

The Project area provides suitable habitat for several special-status plants ranked by the California Native Plant Society (CNPS). These species were not observed in the Project during a botanical survey conducted during the evident and identifiable period. One plant, Brownish beaked-rush, has an evident and identifiable period not covered by the biological surveys. There is a low to moderate potential habitat for the plant. Implementation of BIO-4 will ensure that Project impacts to Brownish beaked-rush are less than significant

Measure BIO-4

- *A botanical survey of the Project area will be conducted prior to initial construction activities during the evident and identifiable period of special-status plant species that could occur in the study area. The survey will be conducted in accordance with standard survey protocols (CDFW 2009; CNPS 2001), where applicable.*
- *If no sensitive plant species are detected during the botanical survey, no further avoidance and minimization efforts will be required.*
- *If sensitive plant species are detected during the botanical survey, the plants will be avoided to the maximum extent practicable during construction of the proposed project. Environmentally Sensitive Areas (ESAs) will be established around sensitive plant occurrences within the Project area to exclude construction activities. Temporary exclusionary fencing will be installed to define the limits of the ESA.*
- *If avoidance is not feasible, the plants will be transplanted to a suitable location in the Project area. The County will coordinate transplantation activities with the appropriate resource agencies.*

Implementation: The County will implement the measures as described above.

Effectiveness The County will prepare and keep on file documentation

Criteria: verifying the implementation of the above-referenced measures.

Timing: Pre-Construction Phase (Potential Construction Phase)

Verified By: _____ Date: _____
County Project Manager

Impact (b): Would the project: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?

Sensitive Natural Community's

The North Fork Cosumnes River, a wetland, two ephemeral drainages, and the alder riparian forest community are considered sensitive natural communities in the Project area. Temporary impacts to Alder riparian forest will result from the pruning and removal of vegetation to allow temporary construction access. Implementation of measure BIO-5 and BIO-6 will reduce potential impacts to the alder riparian community to less than significant.

Measures BIO-5 and BIO-6 are listed under Impact (c) below.

Impact (c): Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Waters of the U.S.

The Project will result in a temporary disturbance of 0.444 acres of North Fork Cosumnes River. There is no permanent disturbance to North Fork Cosumnes River.

Measure BIO-5

- *A silt curtain/fence will be used around any in-water work area to minimize turbidity and sedimentation. Equipment will be refueled and serviced at designated construction staging areas. All construction material will be stored and contained in a designated area that is located away from channel areas to prevent transport of materials into the adjacent North Fork Cosumnes River. The preferred distance is a minimum 100 ft from the wetted width of the river. A silt fence will be installed to collect any discharge, and adequate materials for spill cleanup will be kept on site. ~~Construction vehicles and equipment will be maintained to prevent contamination of soil or water from external grease and oil or from leaking hydraulic fluid, fuel, oil, and grease.~~*
- *If in-water work is required, a temporary diversion structure will be designed so that fish passage is maintained up and down stream of the BSA. The diversion will not create an impassible barrier. The diversion structure will be designed to pass summertime high flows. Water diversion and stream crossing structures should be based on the BMPs consistent with the most current Caltrans Stormwater Quality Handbooks.*
- *If pumps are used to temporarily divert a stream to facilitate construction, an acceptable fish screen must be used to prevent entrainment or impingement of small fish. Potential contact between fish and pump will be minimized and/or avoided by constructing an open basin prior to commencing dewatering. The open basin will be inspected for fish, which will be salvaged and placed in the active flow of North Fork Cosumnes River adjacent to the work zone by a qualified biologist.*
- *If dewatering is required, the contractor will prepare a creek dewatering plan that complies with any applicable permit conditions. A qualified biologist will conduct a survey of the area to be dewatered immediately after installation of the dewatering device, prior to the continuation of dewatering activities. The biologist will use a net to capture trapped fish in the area to be dewatered. Captured fish will be released into North Fork Cosumnes River downstream of the active construction zone. Capturing of fish will continue during dewatering activities when fish are concentrated and easier to catch.*
- ***The creek dewatering plan will include Caltrans BMP NS-5 (Clear Water Diversions) and other applicable Caltrans BMPs. NS-5 requires construction vehicles and equipment to be maintained to prevent contamination of soil or water from external grease, oil, hydraulic fluid, fuel, oil, and other residues.***
- *All disturbed soils in the BSA will undergo erosion control treatment prior to October 15 and/or immediately after construction is terminated at the completion of the Project. Treatment includes temporary seeding and the application of sterile straw mulch. Any disturbed soils on a gradient of over 30 percent will have erosion control blankets installed.*

Permanent vegetation and tree replanting will take place in small openings in the erosion control blanket, with native species.

- *Native trees should be avoided and preserved to the maximum extent practicable.*
- *A litter control program shall be instituted at the entire Project site. All workers will ensure that food scraps, paper wrappers, food containers, cans, bottles, and other trash from the study area are deposited in covered or closed trash containers.*
- *Areas temporarily disturbed will be revegetated and reseeded with native grasses and other native herbaceous annual and perennial species. Reseeded areas will be covered with a biodegradable erosion control fabric to prevent erosion and downstream sedimentation. The project engineer will determine the specifications needed for erosion control fabric (e.g., shear strength) based on anticipated maximum flow velocities and soil types. The seed type will consist of commercially available native grass and herbaceous species. No seed of nonnative species will be used unless certified to be sterile.*
- *The Project may be required to obtain wetland and/or waters mitigation credits or contribute to the Corps of Engineers' in-lieu fee account for temporary **or permanent** impacts to aquatic habitats.*

Implementation: The County will implement the measures as described above.

Effectiveness The County will prepare and keep on file documentation

Criteria: verifying the implementation of the above-referenced measures.

Timing: Construction Phase and Post Construction Phase

Verified By: _____ **Date:** _____
County Project Manager

Impact (d): Would the project: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The proposed Project will result in the removal of approximately 5 riparian trees with a dbh of 4 inches or greater and approximately 84 native upland trees with a dbh of 4 inches and greater. The final tree removal determination will be made by the El Dorado County Transportation. Implementation of BIO-6 will reduce potential impacts to native trees to less than significant.

Measure BIO-6

- *Tree removal will be minimized to the maximum extent possible. The limits of construction will be marked with temporary fencing. Trucks and other vehicles will not be allowed to park beyond, nor shall equipment be stored beyond, the fencing. No vegetation removal, ground disturbing activities, or burning will be permitted beyond the fencing.*
- *Disturbed areas in the Project area will be seeded with native herbaceous plant species.*
- *Native riparian trees removed that are over 4 inches dbh will be replaced at a ratio agreed to by the County and CFDW, but not less than 2:1.*
- *Native upland trees removed from County owned right of way that are over 4 inches dbh will be replaced at a ratio of 1:1 where feasible within the limits of the Project area.*

- *Native upland trees removed from Temporary Construction Easements (TCEs) on private parcels will be replaced at a ratio of 1: 1 in consultation with the property owner. Native shrubs may be substituted for native upland trees.*

Implementation: The County will implement the measures as described above.

Effectiveness The County will prepare and keep on file documentation

Criteria: verifying the implementation of the above-referenced measures.

Timing: Construction Phase and Post Construction Phase

Verified By: _____ **Date:** _____
County Project Manager

4.2.5 CULTURAL RESOURCES

Impact (b): Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

The presence of one archaeological site was confirmed during the pedestrian survey and subsequent subsurface excavations (Tremaine 2015a). The County will implement CULT-1 as described below to reduce potential impact to less than significant.

Measure CULT-1

- *The County will install ESA fencing and protective measures as shown in the ESA Action Plan and Additional Conditions Plan.*

Implementation: The County will implement the measures as described above.

Effectiveness The County will prepare and keep on file documentation

Criteria: verifying the implementation of the above-referenced measures.

Timing: Pre-Construction and Construction Phases

Verified By: _____ **Date:** _____
County Project Manager

4.2.6 TRIBAL CULTURAL RESOURCES

Impact a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074?

The cultural site described in Section 4.2.5, Cultural Resources, may be a tribal cultural resource. No California Native American tribes that are traditionally and culturally affiliated with the geographic area of the proposed project have requested to be notified by El Dorado County pursuant to AB 52. Implementation of mitigation measure CULT-1 above (Cultural Resources) will reduce potential impacts to tribal cultural resources to less than significant.

Implementation: The County will implement the measures as described above.

Effectiveness Criteria: The County will prepare and keep on file documentation verifying the implementation of the above-referenced measures.

Timing: Pre-Construction and Construction Phases

Verified By: _____ **Date:** _____
 County Project Manager

4.2.9 HAZARDS AND HAZARDOUS MATERIALS

Impact (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?

Lead Based Paint and Asbestos Containing Material

The existing bridge paint system may contain lead and the concrete abutments could possibly include asbestos containing material (ACM).

The existing cabin on APN 093-131-12 will be removed by the Project and could possibly contain lead based paint and or asbestos containing materials. Implementation of HAZ-1 will reduce potential impacts to less than significant.

Measure HAZ-1

- *Contract provisions will require an asbestos and lead-based paint survey prior to modifications/ demolition of the existing residential structure (APN 093-131-12) or other buildings or structures that may be altered or modified to accommodate the planned construction. The asbestos survey will be performed by an EPA accredited asbestos professional or other qualified professional. The lead-based paint survey will be performed by a California Department of Health Services (Cal-DHS) Lead Inspector/Assessor or other qualified professional.*
- *Contract provisions will require the existing yellow striping and pavement marking materials be handled in accordance with Caltrans Standard Special Provision 14-11.07 (Remove Yellow Traffic Stripe And Pavement Marking With Hazardous Waste Residue).*
- *Contract provisions will require ACM be handled in accordance with Caltrans Non-Standard Special Provision 14-11.11, Management of Asbestos Containing Materials.*

Implementation: The County will implement the measures as described above.

Effectiveness Criteria: The County will prepare and keep on file documentation verifying the implementation of the above-referenced measures.

Timing: Pre-Construction and Construction Phases

Verified By: _____ **Date:** _____
 County Project Manager

4.2.10 Hydrology and Water Quality

Impact (a): Violate any water quality standards or waste discharge requirements?

Soil Stabilization & Erosion Control

Implementation of BIO-2 and the revegetation measures and water quality BMPs in HYDRO-1 will ensure long-term soil stabilization and protect water quality during construction.

Measure HYDRO-1

- *Areas temporarily disturbed will be revegetated and reseeded with native grasses and other native herbaceous annual and perennial species in accordance. No revegetation is needed on areas of existing bare rock/granitic boulders. Reseeded areas will be covered with a biodegradable erosion control fabric to prevent erosion and downstream sedimentation. The project engineer will determine the specifications needed for erosion control fabric (e.g., shear strength) based on anticipated maximum flow velocities and soil types. The seed type will consist of commercially available native grass and herbaceous species. No seed of nonnative species will be used unless certified to be sterile.*
- *Contract provisions will require implementation of best management practices (BMPs) consistent with the Caltrans Stormwater Quality Handbooks to protect water quality and minimize the potential for siltation and downstream sedimentation.*

Implementation: The County will implement the measures as described above.

Effectiveness Criteria: The County will prepare and keep on file documentation verifying the implementation of the above-referenced measures.

Timing: Construction Phases

Verified By: _____ **Date:** _____
County Project Manager