
**EL DORADO COUNTY
TRANSPORTATION DEPARTMENT**

**MOSQUITO ROAD BRIDGE (No. 25C0061)
OVER THE SOUTH FORK OF THE AMERICAN
RIVER REPLACEMENT PROJECT**

CEQA FINDINGS OF FACT

STATE CLEARINGHOUSE No. SCH# 2015062076

LEAD AGENCY:
El Dorado County

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FINDINGS OF FACT

**for the
MOSQUITO ROAD BRIDGE (NO. 25C0061) OVER THE SOUTH FORK OF THE AMERICAN
RIVER REPLACEMENT PROJECT
FINAL ENVIRONMENTAL IMPACT REPORT
(SCH NO. 2015062076)**

1.0 INTRODUCTION

The El Dorado County Department of Transportation (County) proposes to replace the existing Mosquito Road Bridge (No. 25C0061) within the canyon of the South Fork American River. The bridge is in the west-central portion of El Dorado County and within a rugged rural area of the Sierra Nevada foothills. The County has evaluated multiple replacement options for the existing bridge and has determined that the proposed project is the most viable alternative for correcting the structural and operational deficiencies of the bridge and approaches.

The County has a Final Environmental Impact Report (Final EIR) in compliance with CEQA and CEQA Guidelines Section 15162. The Final EIR evaluates the potential environmental effects associated with completion of the Mosquito Road Bridge over the South Fork of the American River Replacement Project (Project).

In approving a Project for which the EIR identifies one or more significant environmental impacts, the approving agency must make one or more of three findings for each identified significant impact accompanied by a brief explanation of the rationale, pursuant to Section 15091 of the CEQA Guidelines. These CEQA Findings of Fact (Findings) have been prepared in accordance with CEQA and the CEQA Guidelines in consideration of the information presented in the Draft EIR and all other relevant information in the Project record.

As the lead agency for the Project under California, Title 14, Section 15367, having certified the Final EIR as adequately addressing the impacts of the Project, the County of El Dorado Board of Supervisors hereby adopts these CEQA Findings.

1.1 PURPOSE AND OBJECTIVES

County objectives for the Project are discussed in Section 2.3 of the 2015 Draft EIR and include:

Objective 1. Replace the structurally deficient and functionally obsolete bridge and reconstruct the substandard roadway approaches consistent with good design practices; and provide a safer and more reliable transportation facility that accommodates all modes of travel in keeping with the corridor's functional classification and satisfies the needs of the regional transportation system. This objective includes the following elements:

1. Replace a structurally deficient and functionally obsolete Mosquito Bridge
2. Reconstruct the substandard roadway approaches
3. Provide safer and more reliable passage to the transportation facility (new bridge and approaches)
4. Provide a solution that is consistent with the corridor's functional classification and satisfies regional transportation needs

Objective 2. Protect natural resources, including native oak trees, and adjacent waterways by selecting a Project alignment that directly avoids or minimizes impacts on these features to the extent feasible while producing environmental benefits wherever achievable.

The County obtained federal funding from the Federal Highway Bridge Program to provide improvements that result in a functional bridge that meets current design standards and satisfies the regional transportation needs of the facility. The Project is included in the El Dorado County Proposed 2017 Capital Improvement Program (CIP), CIP project number 77126.

1.2 BACKGROUND

The Mosquito Road “Swinging Bridge” was built in 1867. In 1939, the bridge was largely reconstructed, maintaining the 1867 foundations. In current times, the bridge requires extensive maintenance, which results in up to a 1-month road closure each summer. The existing span across the river is a one-lane, 9-foot wide, limited-capacity timber suspension bridge. The tops of the existing suspension cable towers are approximately 200 feet apart, while the span itself is 140 feet long. Mosquito Road is classified within Caltrans’ Local Highway Bridge Program as a Local Rural roadway and therefore the bridge is categorized as an “off-system” bridge (e.g., not on a state highway). This road is classified within the County roadway system as a Regional Road. Mosquito Road is one of two ingress/egress roadways for the communities of Mosquito and Swansboro and is thus a significant route. The bridge has a sufficiency rating of 12.5 with a status of structurally deficient. The sufficiency rating is a measure of the bridge’s ability to remain in service and is based on a scale of 0 to 100. Structurally, the bridge is rated near the bottom of the list of all bridges in California. Although the bridge was extensively repaired in 1985, 1990, and recently in 2011, it is still considered structurally deficient. Bridge repairs conducted in July 2015 required a detour of as much as 20 miles.

1.3 PROJECT DESCRIPTION

1.3.1 Project Location. The bridge is in the west-central portion of El Dorado County and within a rugged rural area of the Sierra Nevada foothills. The proposed Project site is along Mosquito Road in unincorporated El Dorado County northeast of Placerville. The existing Mosquito Road Bridge is roughly 6 miles north of U.S. Highway 50 and 2.3 miles south of the communities of Mosquito and Swansboro.

1.3.2 Project Summary. A detailed description of the Project is contained in Section 2.4 of the Draft EIR. The proposed Project would construct a new bridge with a profile to approximately 400 feet over the river on the most direct alignment across the river. The new main bridge over the South Fork American River would be a multi-span, likely cast-in-place prestressed concrete box-girder, concrete arch, or network arch type bridge with a maximum span of approximately 650 feet. Depending on the final engineered profile, a minor bridge may be constructed over a small ravine leading to the main bridge over the river. This minor bridge would be approximately 120 feet long and would likely be a single-span, cast-in-place pre-stressed concrete box-girder, or precast I-girder type bridge. A large arch culvert with concrete headwalls may be constructed instead of the minor bridge. The clear-span design of either the minor bridge or the large arch culvert would be above the ordinary high-water mark (OHWM) of the small ravine.

The proposed Project would provide a reliable river crossing with a fully accessible replacement bridge that is consistent with the roadway classification and regional transportation needs. In

accomplishing this, the proposed Project would eliminate substandard roadway approaches that currently restrict vehicle access to the bridge—the one hairpin on the Placerville side of the canyon and the four hairpins on the Mosquito/Swansboro side of the canyon that have been the subject of one fatality. The Project involves an approximately 2,000-foot realigned roadway. The departure from the existing roadway on the south involves approximately 575 feet of roadway approach to the nearly 1,200-foot-long bridge, then a 300-foot northerly roadway approach where the alignment converges back to the existing roadway.

1.4 REQUIRED CEQA FINDINGS

Public Resources Code Section 21002 requires that agencies must adopt findings before approving projects for which EIRs are required. For each significant environmental effect identified in an EIR for a proposed project, the lead agency (in this case, the El Dorado County Board of Supervisors) must issue a written finding reaching one or more of three permissible conclusions:

- (1) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR (hereinafter referred to as “Finding 1”).
- (2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency (hereinafter referred to as “Finding 2”).
- (3) Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the Final EIR (hereinafter referred to as “Finding 3”).

For purposes of these Findings, the term "mitigation measure" constitutes "changes or alterations" as discussed above. The term "avoid or substantially lessen" refers to the effectiveness of one or more of the mitigation measures to reduce an otherwise significant or potentially significant environmental effect to a less-than-significant level. "Feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, legal, and technological factors. The concept of "feasibility" also encompasses the question of whether a particular alternative or mitigation measure promotes the underlying goals and objectives of a project. (*Sequoyah Hills Homeowner Assn. v. City of Oakland* (1993) 23 Cal.App.4th 704, 715.) Moreover, "'feasibility' under CEQA encompasses 'desirability' to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, legal, and technological factors." (*City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3d 410, 417.)

CEQA Guidelines, Section 15091, requires that CEQA findings be supported by substantial evidence in the record. CEQA requires that the lead agency adopt mitigation measures or alternatives, where feasible, to substantially lessen or avoid significant environmental impacts that would otherwise occur.

The EIR identifies significant effects on the environment which may occur as a result of the Project and provides mitigation measures to reduce each of those impacts to a less than significant level.

Findings are required regarding mitigation measures, the mitigation monitoring plan, alternatives, cumulative impacts, and growth inducement. Section 2.0 of these Findings discusses the potential for the Project to result in environmental impacts which are significant and unavoidable. Section 3.0 of these Findings discusses impacts of the Project that are less than significant and do not require mitigation because of the type or design of the Project. Section 4.0 of these Findings sets forth potential environmental effects of the Project which are significant or potentially significant but can be mitigated to a level of less than significant. Section 5.0 of these Findings summarizes the alternatives discussed in the EIR and makes findings with respect to the feasibility of alternatives and whether the alternatives would lessen the significant environmental effects of the Project. Section 6.0 of these Findings summarizes findings regarding the Project's potential cumulative impacts. Section 7.0 of these Findings provides findings regarding the Project's effects on growth inducement.

1.4.1 Certification of Final EIR. In accordance with CEQA in adopting these Findings, the County considered the environmental effects as documented in the Final EIR prior to approval. These Findings represent the independent judgment and analysis of the County decision-making body. These Findings are based upon substantial evidence in the entire record before the County decision-making body. The references to the EIR set forth in the Findings are for ease of reference and are not intended to provide an exhaustive list of the evidence relied upon for these Findings.

1.4.2 Location and Custodian of Records. Pursuant to Public Resources Code Section 21081.6 and California Code of Regulations, title 14, Section 15091, El Dorado County is the custodian of documents and other material that constitute the record of proceedings upon which the County's decision is based, and such documents and other material are located at the El Dorado County Transportation Department offices at 2850 Fairlane Court, Placerville, California.

1.5 MITIGATION MONITORING AND REPORTING PLAN

Pursuant to Section 15091(d) of the CEQA Guidelines, all feasible mitigation measures that avoid or substantially lessen the significant effects of the Project and that are adopted by the County become binding on the Project at the time of approval as requirements of the Project. A Mitigation Monitoring and Reporting Plan (MMRP) has been prepared for the Project and is included as Attachment A of these Findings. The MMRP is adopted with these Findings, in accordance with CEQA Guidelines Sections 15091(d) and 15097. Transportation will use the MMRP to track implementation and compliance with the adopted mitigation measures. The MMRP will remain available for public review during the compliance period. The MMRP is approved in conjunction with certification of the EIR and adoption of these Findings.

2.0 POTENTIAL ENVIRONMENTAL IMPACTS WHICH ARE SIGNIFICANT AND UNAVOIDABLE

The EIR identifies a number of potentially significant environmental impacts that may be caused in whole or in part by the Project. The County determined that, after the implementation of mitigation measures in the MMRP and approved by these Findings, there are no significant and unavoidable environmental impacts that would result from implementation of the Project. All impacts resulting from the Project have been reduced to a less than significant level with mitigation identified in the EIR. Thus, the County decision-making body is not required to adopt overriding considerations when approving the Project.

3.0 FINDINGS REGARDING LESS THAN SIGNIFICANT ENVIRONMENTAL IMPACTS

The EIR concludes that, for the following environmental impacts, the Project as proposed will cause impacts that are less than significant. The EIR therefore concludes that the following impacts do not require mitigation in order to avoid or reduce the severity of these impacts. These impacts were identified in the Draft EIR and public comments on the Draft EIR did not provide additional evidence to revise the impact analysis or conclusions of the EIR. The following summary provides a brief explanation why each impact was determined to be less than significant. A full explanation of each environmental impact and conclusions regarding impact significance can be found in the EIR and associated record.

AESTHETICS

Impact AES-3: Substantially degrade the existing visual character or quality of the site and its surroundings

The EIR concluded the impact is less than significant based on the following facts:

Project construction activities would result in only temporary visual changes lasting no longer than 2 years, which would not negatively affect viewers. While the new bridge crossing would be realigned, widened, and raised compared to the existing crossing, views of the Project are very limited from residential areas and road approaches on both sides of the canyon. As described in the responses to comments I-299-13 and I-299-15, the Draft EIR documents the availability of views of the project from the range of viewpoints and provides evidence that views of the proposed project will be limited. Also, a bridge is an existing visual element within the Project area, and the proposed Project would not substantially alter the existing visual character of the Project area as seen by all viewer groups.

Vegetation removal would slightly alter views, but remaining vegetation would screen views of areas where vegetation has been removed to residential and recreational viewers and roadway users would only see these areas briefly, in passing. Construction would also remove mature trees and shrubs to accommodate the roadway realignment and new bridge crossing. The least possible number of trees will be removed. On-site revegetation of cleared areas, required for soil stabilization and to mitigate the loss of mature vegetation, will reduce the visual effects of the Project. Impacts and mitigation related to vegetation removal is discussed further in Section 3.3, *Biological Resources*. The Project's effects on the visual character or quality of the site are considered less than significant. No mitigation is required.

Impact AES-4: Creation of a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area

The EIR concluded the impact is less than significant based on the following facts:

Project construction would occur year-round, Monday through Friday between the hours of 7 a.m. and 7 p.m. and Saturday between the hours of 8 a.m. and 6 p.m. This schedule would reduce the need for high-intensity lighting for nighttime construction, because construction would primarily take place during daylight hours. However, if needed, such lighting would not result in adverse impacts because sensitive residential visual receptors are at a great enough distance or are not within visual sight of the construction area and roadway travelers would pass by such lighting very

briefly. The proposed Project would not involve improvements that increase daytime glare, and no operational lighting is proposed. The impact would be less than significant. No mitigation is required.

AIR QUALITY AND GREENHOUSE GASES

Impact AQ-1: Conflict with or obstruct implementation of the applicable air quality plan

The EIR concluded the impact is less than significant based on the following facts:

The proposed Project is listed in Sacramento Area Council of Government's (SACOG) financially constrained 2017/2020 Metropolitan Transportation Improvement Program (MTIP) and 2016 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS). The SACOG Project ID No. ELD19340 and the proposed Build Alternative are described as "Mosquito Rd, over South Fork American River, 5.7 miles north of US 50: Replace existing structurally deficient 1 lane bridge with new 2 lane bridge. (Toll credits programmed for PE, right-of-way, & CON. CIP77126)."

Projects included in the MTP/SCS and MTIP are required to be consistent with the planning goals of State Improvement Programs (SIPs) adopted by local air quality management agencies. While construction of the Project would result in an emissions increase, the emissions would be short term and would not exceed El Dorado County Air Quality Management District (EDCAQMD) thresholds. Moreover, implementation of the Project would improve overall efficiency as the proposed roadway approaches on the more direct alignment over the river would permit a more consistent vehicular speed, thereby reducing the currently required extreme deceleration, idling, and acceleration to get to, and generally shorter travel distance across, the existing bridge. This improved efficiency is consistent with the objectives and policies outlined in SACOG's MTP/SCS and the Ozone Plan. This impact would be less than significant, and no mitigation is required.

Impact AQ-2: Violate any air quality standard or contribute substantially to an existing or projected air quality violation

The EIR concluded the impact is less than significant based on the following facts:

Construction

Site preparation and roadway construction would involve clearing, grading, and paving roadway surfaces. Construction-related impacts on air quality would be greatest when multiple pieces of equipment are operating simultaneously and generating exhaust emissions. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. These emissions would predominantly occur during grading and earthmoving activities. Emissions would vary day-to-day, depending on the nature and magnitude of construction activity and local weather conditions.

Daily construction emissions and daily and total fuel consumption are shown Tables 3.2-5 and 3.2-6, respectively. Since construction of each phase would occur sequentially, emissions for each phase are compared separately to EDCAQMD's thresholds as opposed to adding emissions across all phases. Accordingly, if emissions generated during a single phase exceed EDCAQMD's thresholds, the Project would result in a significant air quality impact.

Table 3.2-5. Estimated Criteria Pollutant Emissions from Construction (pounds per day)

Phase	ROG	CO	NO _x	PM10	PM2.5
Grubbing/Land Clearing	3	18	26	4	2
Grading/Excavation	5	33	51	3	2
Drainage/Utilities	2	17	11	1	1
Paving	1	11	6	<1	<1
<i>Significance Threshold</i>	<i>82</i>	<i>CAAQS</i>	<i>82</i>	<i>CAAQS/BMPs</i>	<i>CAAQS/BMPs</i>

Source: Terry A. Hayes Associates Inc. 2016.

BMPs = best management practices

CAAQS = California Ambient Air Quality Standards

Table 3.2-6. Estimated Fuel Usage during Construction (gallons per day and total)

Phase	Fuel Use
Grubbing/Land Clearing	206 average gallons per day ^b
Grading/Excavation	361 average gallons per day ^b
Drainage/Utilities	222 average gallons per day ^b
Paving	143 average gallons per day ^b
Construction Total	197,042 gallons
<i>Daily Screening Threshold</i>	<i>402 gallons</i>
<i>Construction Total Screening Threshold^a</i>	<i>37,000 gallons</i>

^a EDCAQMD's construction health risk fuel consumption screening threshold is shown for reference, but not used for this analysis, as this screening criterion is based on construction equipment over 15 years old and does not account for the improved emissions control technologies found on current construction equipment that has substantially reduced DPM exhaust emissions.

^b Source: Terry A. Hayes Associates Inc. 2016.

ROG and NO_x emissions would not exceed the EDCAQMD significance threshold of 82 pounds per day. In addition, daily fuel consumption would be less than the 402 gallons per day screening threshold set by EDCAQMD since each construction phase will occur sequentially. During construction of the proposed Project, occasional short-term closures of the existing bridge (up to approximately 2 to 4 weeks) would occur. This duration is consistent with the duration of the closures that occur for existing annual bridge maintenance. When a closure is implemented, traffic is rerouted on Rock Creek Road, a detour up to 20 miles. Because under no-build conditions a detour is implemented each year during the annual bridge maintenance period, no increase in

criteria pollutant emissions would result from Project implementation of a short-term closure and detour during construction of the new bridge. Therefore, the proposed Project would not exceed CAAQS in the vicinity of the Project site. Fugitive dust would be controlled through implementation of best management practices (BMPs), including compliance with Caltrans Standard Specifications 14-9. This impact would be less than significant, and no mitigation is required.

Operation

As shown in Table 3.2-7, the new bridge would result in a negligible increase in traffic volumes under the build conditions compared to the no build conditions. While the implementation of the new bridge may increase the truck volumes by approximately 1% because large trucks cannot cross the existing bridge, the net decrease in overall emissions due to a shorter travel path (approximately 1 mile compared to using the old bridge) and more consistent speeds, without the need to idle before crossing a one lane bridge, would offset the increase in emissions due to the addition of approximately 13 daily truck trips in 2015 and 26 daily truck trips in 2034. Based on the roadway design and anticipated volumes, it is anticipated that the new Mosquito Bridge would result in a negligible change to regional emissions. Therefore, operational emissions would not result in a significant impact on criteria pollutant emissions, and no mitigation is required.

Table 3.2-7. Average Daily Traffic on Mosquito Road Bridge

Scenario	Total ADT	% Trucks	Truck ADT
Existing (2015)			
No Build	1,256	0%	0
Build	1,269	1.02%	13
Future (2034)			
No Build	2,521	0%	0
Build	2,547	1.02%	26

Source: Terry A. Hayes Associates Inc. 2016.

ADT = Average Daily Traffic

Impact AQ-3: Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is a nonattainment area for an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)

The EIR concluded the impact is less than significant based on the following facts:

The EDCAQMD considers cumulative air quality impacts to be less than significant if a project satisfies the following criteria:

- Does not require a change in the existing land use designation, such as through a general plan amendment or rezone.
- Does not exceed the “project alone” significance criteria.
- Implements applicable Ozone Plan emission reduction measures.
- Complies with all applicable district rules and regulations.

The proposed Project would not need any land use redesignation or rezoning. Neither construction nor operational emissions would exceed the EDCAQMD's "project alone" significance criteria (see Impact AQ-2 on page 3.2-12 of the Draft EIR). The Project would implement Caltrans Standard Specifications, which require compliance with local rules and regulations, including applicable Ozone Plan control strategies. The proposed Project therefore meets the EDCAQMD's cumulative significance criteria and would result in a less-than-significant impact related to cumulative emissions.

Impact AQ-4: Expose sensitive receptors to substantial pollutant concentrations

The EIR concluded the impact is less than significant based on the following facts:

Diesel Particulate Matter

Project construction would generate DPM, resulting in the potential exposure of nearby existing sensitive receptors (e.g., residences) to increased DPM concentrations. For the Mosquito Bridge project there is only 1 resident within approximately 150' of the project area. As shown in Table 3.2-6, total fuel usage would be 197,042 gallons of diesel, which is above the screening threshold of 37,000 gallons set by EDCAQMD. However, EDCAQMD's construction health risk fuel consumption screening threshold is shown only for reference, not used for the determination of significance in this analysis, as EDCAQMD's screening criterion is based on construction equipment over 15 years old and does not account for the improved emissions control technologies found on current construction equipment that has substantially reduced DPM exhaust emissions.

As described above, one residence is located in the immediate vicinity of the Project approximately 150 feet from the Project footprint on the Placerville side of the canyon. Although proximity to receptors indicates the potential for a significant health risk, air quality management agencies recognize that other variables, such as duration of the construction period, types of construction equipment, and the amount of onsite diesel-generated emissions, can influence DPM concentrations and the potential for a project to result in increased health risk.

Exposure of this sensitive receptor to project-related DPM exhaust emissions is anticipated to be minimal. As indicated in Table 3.2-5, PM10 emissions are relatively minor, with a maximum of 4 pounds per day associated with the Grubbing/Land Clearing phase. Of this amount, 1.3 pounds per day is associated with PM10 exhaust, as PM10 is often used as a surrogate for DPM emissions (Terry A. Hayes Associates Inc. 2016).

Cancer health risks associated with exposure to diesel exhaust are typically associated with chronic exposure, in which a 70-year exposure period is assumed. In addition, DPM concentrations, and, thus, cancer health risks, dissipate as a function of distance from the emissions source.

Construction associated with the Project would require approximately 30 total months to complete, but construction activities would not occur over 30 sequential months, as construction activities would be broken up into two construction seasons. The 30-month duration of construction activities is shorter than the 70-year exposure period typically associated with increased cancer health risks. Moreover, construction activities during this time period would generally occur in a linear fashion, as opposed to at a single location. As construction activities proceed on the Placerville side of the canyon they will occur further away from the sensitive receptor. A

substantial amount of the construction activities, and the construction equipment and associated emissions, will be located within the canyon of the South Fork American River, at elevations up to 300 feet below the elevation at which the sensitive receptor is located. This relocation of the construction equipment into the canyon of the South Fork American River will aid in the dispersion of construction emissions, as wind in canyon-type environments is often stronger and more pronounced, which would help to further minimizing exposure of the sensitive receptor to construction-related DPM exhaust emissions. Therefore, construction activities would result in a less-than-significant impact related to exposure of sensitive receptors to DPM.

Regarding operational emissions, health risk assessments are typically completed for substantial sources of DPM emissions (e.g., truck stops and distribution facilities). Construction of the new bridge would likely increase the truck volumes by approximately 1% to 13 daily truck trips in 2015 and 26 daily trips in 2034. These levels of truck volumes would not generate significant emissions, and do not justify completion of a health risk assessment. In addition, the Project does not meet the EPA's screening criteria for projects of air quality concern, which is greater than 125,000 ADT, where 8% or more of such traffic is diesel truck traffic—as shown in Table 3.2-7, ADT on Mosquito Bridge in 2034 would be 2,547 with 26 trucks. This impact would be less than significant, and no mitigation is required.

Carbon Monoxide

Heavy traffic congestion can contribute to high levels of CO. Individuals exposed to these CO “hot spots” may have a greater likelihood of developing adverse health effects. As shown in Table 3.2-6, daily fuel consumption would be less than the 402 gallons per day screening threshold set by EDCAQMD. Therefore, the proposed Project would not exceed the CO CAAQS in the vicinity of the Project site. This impact would be less than significant, and no mitigation is required.

Naturally Occurring Asbestos (NOA)

El Dorado County has prepared a map of asbestos areas, which indicates that the proposed Project is not in an area containing NOA (Terry A. Hayes Associates Inc. 2016). Although it is not anticipated that construction activity would encounter NOA, the proposed Project would be required to comply with EDCAQMD Rule 223-2 requiring activities to reduce asbestos dust created from earth-moving activities. Standard dust control measures such as watering will effectively control unanticipated NOA exposure. This impact would be less than significant, and no mitigation is required.

Structural Asbestos

The EIR considered impacts from the potential removal of the existing bridge because HBP funds could not be used to maintain it. Since then, the County has independently decided to maintain the bridge for pedestrian and bicycle use. Nonetheless if the existing bridge was removed, prior to it being disassembled and removed, bridge materials would have been tested for the presence of hazardous materials, such as structural asbestos. If asbestos were identified in bridge materials, the County would prepare an Asbestos Control Plan in compliance with federal and state regulations. Please refer to Section 3.7, *Hazards and Hazardous Materials*, for additional information. This impact would be less than significant, and no mitigation is required.

Lead-Based Paint

Aerially deposited lead (Pb) has been found to occur in soils adjacent to highways and high use roadways. The Pb is presumably from the historical use of leaded gasoline and subsequent exhaust emissions. Pb has not been identified in the Project area. In addition, if the existing bridge was disassembled and removed, bridge materials would first be tested for the presence of hazardous materials such as lead-based paint. If Pb is identified in bridge materials, the proposed Project would be required to develop a Lead Compliance Plan to minimize exposure. Please refer to Section 3.7, *Hazards and Hazardous Materials*, for additional information. This impact would be less than significant, and no mitigation is required.

Impact AQ-5: Create objectionable odors affecting a substantial number of people

The EIR concluded the impact is less than significant based on the following facts:

Construction activities associated with the proposed Project would involve the use of a variety of gasoline- or diesel-powered equipment that emit exhaust fumes and require asphalt paving, which has a distinctive odor during application. It is anticipated that these emissions would occur intermittently throughout the workday and the associated odors would dissipate rapidly within the immediate vicinity of the work area. Persons within close proximity to the construction work area may find these odors objectionable. However, the infrequency of the emissions, rapid dissipation of the exhaust into the air, and short-term nature of the construction activities would result in a less-than-significant impact associated with construction odors at the nearest residence.

Land uses and industrial operations that are associated with odor complaints include wastewater treatment plants, landfills, confined animal facilities, composting stations, food manufacturing plants, refineries, and chemical plants. Accordingly, it is not anticipated that the operations of the proposed Project would result in odor nuisances. This impact would be less than significant, and no mitigation is required.

BIOLOGY

Impact BIO-4: 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

The EIR concluded the impact is less than significant based on the following facts:

Construction of the proposed Project would span the river channel horizontally by approximately 1,000 feet and would result in bridge supports, including abutments, placed within the canyon. Appropriate construction safety measures will be implemented to prevent construction debris from falling into the canyon or river. Therefore, the new bridge structure is not expected to create a substantial movement barrier to wildlife. Raptors soaring through the canyon would need to fly above or below the bridge structure but generally would not be impeded by the structure. Native fish may be present and disperse through the river channel in the study area; however, there are no proposed modification to the river channel and therefore, native fish movements would not be impeded by proposed Project features. This would be a less-than-significant impact, and no mitigation is required.

CULTURAL RESOURCES

Impact CUL-2: Potential to cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5

The EIR concluded the impact is less than significant based on the following facts:

No archaeological resources were found in the APE and the archaeological sensitivity assessment indicates the area is not sensitive for buried archaeological resources (ICF International 2016a). However, because ground disturbance is required, there is still a chance for accidental archaeological discoveries. The Project will implement County policies and state laws to protect any buried archaeological resources discovered during Project construction. As described in Chapter 2, *Project Description*, the contractor will be required to stop all work in the vicinity of discovered resources and have a qualified archaeologist evaluate the nature and significance of the find prior to resuming any work in the area of the discovery. Implementation of the Construction Contract provisions and adherence to laws and regulations would reduce this impact to a less-than-significant level. No mitigation is required.

Impact CUL-3: Disturbance of any human remains, including those interred outside of formal cemeteries

The EIR concluded the impact is less than significant based on the following facts:

No known human remains are present within the proposed Project area. However, it is possible that construction activities would result in the discovery of human remains. If human remains are discovered during Project construction, the proposed Project will adhere to the construction contract provisions as described in Chapter 2, *Project Description* and will require immediate County notification and compliance with California Health and Safety Code Section 7050.5 and Public Resources Code Sections 5097.5, 5097.9 et seq., regarding the discovery and disturbance of cultural materials or human remains. Implementation of the construction contract provisions and adherence to laws and regulations would reduce this impact to a less-than-significant level. No mitigation is required.

Impact GEO-1: Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: (1) 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; (2) strong seismic ground shaking; (3) seismic-related ground failure, including liquefaction; and (4) landslides

The EIR concluded the impact is less than significant based on the following facts:

No active fault traces are shown on published mapping to cross the Project area and the Project area is not within or adjacent to an Alquist–Priolo Earthquake Fault Zone for fault rupture hazard (California Geological Survey 2016a). No evidence of surface fault rupture was observed from Taber Consultants' (2015) geologic reconnaissance at the bridge site.

As described in the preliminary geotechnical report (Youngdahl Consulting Group 2015), in earlier work, Youngdahl identified a lineament visible in aerial photography crossing the American River in

a northwesterly direction, dipping steeply upstream as it crosses the river. They indicated that the lineament may be a shear zone or prominent joint system.

The ground-shaking hazard in the Project area is low. Nonetheless, a large earthquake on a nearby fault could cause minor ground shaking in the vicinity of the Project area, potentially resulting in an increased risk of structural loss, injury, or death.

In addition to the low hazard of surface fault rupture and ground shaking and related hazards, these impacts would be less than significant because the Project applicant would be required to implement IBC and CBSC standards into the Project design for applicable features to minimize the potential fault rupture and ground-shaking hazards on associated Project features. Structures must be designed to meet the regulations and standards associated with the IBC and the CBSC. Detailed geotechnical investigations will be conducted prior to construction activities to support detailed Project design and the seismic design parameters will be based on the building codes in effect at that time.

Because of the low potential for strong seismic shaking and the absence of saturated, unconsolidated sandy sediments, the hazard of liquefaction in the Project area is low. Also, because of the low potential for strong seismic shaking, the hazard of seismically-induced landslides in the Project area is low. (See Impact GEO-4, on page 3.5-17 of the Draft EIR for a discussion of landsliding in the absence of seismic shaking.)

These impacts would be less than significant. No mitigation is required.

Impact GEO-2: Potential to result in substantial soil erosion or the loss of topsoil

The EIR concluded the impact is less than significant based on the following facts:

Grading, excavation, removal of vegetation cover, stockpiling, and loading activities associated with construction could temporarily increase water and wind erosion rates compared to pre-construction conditions. The decomposed granitic soils in the Project area are highly erodible when the vegetative cover is removed or disturbed.

Construction activities could also result in permanent overcovering and therefore loss of topsoil.

However, as required by the Construction General Permit, a Storm Water Pollution Prevention Plan (SWPPP) will be prepared by a Qualified SWPPP Developer and implemented before and during construction. The SWPPP must identify pollutant sources that may affect the quality of stormwater associated with construction activities and identify stormwater and non-stormwater pollution prevention measures to reduce pollutants in stormwater discharges during and after construction. The SWPPP also would include details of how the sediment and erosion control practices (i.e., BMPs) will be implemented and maintained during construction. Implementation of the SWPPP will comply with local, state and federal water quality regulations.

In addition to the SWPPP, adherence to the NPDES MS4 Order and applicable El Dorado County Grading Ordinance, Subdivision Ordinance, Design and Improvement Standards Manual, and Drainage Manual will all minimize any effects from erosion, runoff, and sedimentation.

Accordingly, this impact would be less than significant. No mitigation is required.

Impact GEO-4: Location on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property

The EIR concluded the impact is less than significant based on the following facts:

The soils in the Project area are rated by the NRCS as having a low or moderate expansion potential and therefore probably would not meet the Uniform Building Code criteria for an expansive soil.

Additionally, per County and Caltrans requirements, the Project engineers will be responsible for conducting a final geotechnical evaluation of unconsolidated materials in the Project area to determine whether they are susceptible to high shrink-swell behavior prior to grading and construction activities. Subsurface borings at regular intervals within the Project footprint or other methods determined by a geotechnical engineer are recommended. Based on subsurface conditions, the Project engineers will design the specific Project elements to accommodate effects of expansive soils. If expansive soils are determined to be present at any location where Project activities would occur, corrective actions will be taken. Such actions may include excavation of potentially expansive soils during construction and replacement with engineered backfill, ground treatment processes, and direction of surface water and drainage away from foundation soils. The County will select one or more of these measures in consultation with a qualified engineer before construction activities begin. At a minimum, the County will ensure that in the event that expansive soils are encountered, these soils are properly managed in the context of applicable AASHTO and LRFD design requirements and in agreement with the recommendations of a qualified engineer. The impact would be less than significant. No mitigation is required.

GREENHOUSE GAS EMISSIONS

Impact GHG-1: Generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment

The EIR concluded the impact is less than significant based on the following facts:

Construction

Construction GHG emissions include emissions produced by on-site construction equipment, including heavy-duty equipment and haul trucks. The RCEM (Version 7.1.5.1) was used to estimate GHG emissions from these sources. As estimated by the RCEM, construction activities would generate 2,005 metric tons of GHG emissions. This would include 67 metric tons per month over the 30-month construction period, or 802 metric tons in a 12-month period (Terry A. Hayes Associates Inc. 2016). These emissions would be less than the regional draft threshold of 1,100 metric tons CO₂e per year. During construction, occasional short-term closures of the bridge of up to approximately 2 to 4 weeks would occur. As discussed in Draft EIR Chapter 2, *Project Description*, and Chapter 3, *Impact Analysis*, Section 3.2.2, this duration is consistent with the duration of the closures that occur for existing annual bridge maintenance. Because under the no build condition a 20-mile detour via Rock Creek Road is implemented each year, no increase in GHG emissions would result from Project implementation of a short-term closure and detour during construction of the new bridge. Accordingly, construction emissions would result in a less-than-significant impact related to GHGs. No mitigation is required.

Operation

As shown in Table 3.2-7 in Chapter 3.2, *Air Quality*, the new bridge would result in a negligible increase in traffic volumes under the build conditions compared to the no build conditions. While the implementation of the new bridge would increase the truck volumes by approximately 1%, the net decrease in overall emissions due to a shorter travel path (approximately 1 mile shorter compared to using the old bridge), speed gains, and elimination of idled cars waiting to cross the existing one-lane bridge, will offset the increase in emissions due to addition of 13 daily truck trips in 2015 and 26 daily trips in 2034. Based on the roadway design and anticipated volumes, it is anticipated that the new Mosquito Bridge would result in a negligible change to emissions. The new bridge also likely requires fewer closures for maintenance, further reducing emissions resulting from short term detours along Rock Creek Road. Therefore, operational emissions would not result in a significant impact on GHGs. No mitigation is required.

Impact GHG-2: Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases

The EIR concluded the impact is less than significant based on the following facts:

The most applicable GHG regulation to transportation projects, including the proposed Project, is SB 375. SB 375 became effective January 1, 2009, to reduce GHG emissions from automobiles and light trucks through integrated transportation, land use, housing, and environmental planning. Under this law, SACOG is tasked with developing an SCS that provides a plan for meeting per capita CO₂ emissions levels allocated to SACOG by ARB. For the SACOG region, the targets set by ARB are 7% below 2005 emissions levels by 2020 and 16% below 2005 levels by 2035. Accordingly, the targets established by SB 375 not only address near-term (2020) emissions, but also long-term (2035) emissions consistent with statewide executive orders, judicial attention, and recommendations made by the Association of Environmental Professionals' Climate Change Committee.

The Final EIR for the 2016 MTP/SCS demonstrates that projects identified in the MTP/SCS meet the ARB's issued SB 375 GHG targets for the SACOG region in 2020 and 2035. GHG emissions associated with the MTP/SCS, including those projects identified in the MTP/SCS, would therefore be less than significant (Sacramento Area Council of Governments 2016).

As discussed in Draft EIR Chapter 3.2, *Air Quality*, the proposed Project is listed in the 2016 MTP/SCS. The design concept and scope of the proposed Project are described in Draft EIR Chapter 2, *Project Description*. Because the proposed Project is identified and consistent with SACOG's 2016 MTP/SCS, which was found to have a less-than-significant GHG impact, project-level GHG emissions would be consistent with SB 375. Accordingly, this impact would be less than significant and no mitigation is required.

HAZARDS AND HAZARDOUS MATERIALS

Impact HAZ-1: Creation of a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials

The EIR concluded the impact is less than significant based on the following facts:

Construction of the proposed Project would involve small quantities of commonly used materials, such as fuels and oils, to operate construction equipment. However, because standard BMPs will be implemented to reduce the emissions of pollutants during construction of the proposed Project, this impact would be less than significant. Once construction is complete, there would be no further use of hazardous materials or potential exposure associated with the Project.

Some of the structures within the Project area may pose a risk related to hazardous materials. The existing bridge could contain LBP, ACM, or TWW. These chemicals are known to be toxic or carcinogenic. Construction workers could be exposed to these hazardous wastes or materials if the components of the existing bridge were demolished and removed. Harmful exposure to these chemicals may result from dermal contact, or from inhalation or ingestion of particulate (e.g., sawdust and smoke). The potential exposure of construction workers to hazardous materials or wastes is considered to be a significant impact because of the possible threat to human health from the handling of these materials. However, even if the Board had not independently decided to maintain the bridge and it was removed, implementation of the following specifications and adherence to laws and regulations would reduce this impact to a less-than-significant level.

Construction contract specifications would provide that the County or its contractors would arrange for sampling and testing of bridge paint in areas scheduled for removal to determine the presence of lead chromate, other metals, or chemicals. If present, the materials would be removed and disposed of in accordance with all applicable laws and regulations, including Caltrans Construction Program Procedure Bulletin 99-2 (CPB 99-2). If the lead or chemical content of the paint was above regulatory thresholds, standard BMPs as described under the SWPPP, as discussed in Draft EIR Section 3.8, *Hydrology and Water Quality*, would address worker safety when working with potential LBP. The bridge would also be sampled and tested for ACM and TWW. Hazardous materials found within the Project area will be removed and disposed of by a licensed and certified abatement contractor prior to demolition or other activities that will disturb hazardous materials. The potential to encounter hazardous materials during removal of existing structural elements has also been further reduced as the existing Mosquito Bridge will remain in place. This impact would be less than significant, and no mitigation is required.

Impact HAZ-2: Creation of 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

The EIR concluded the impact is less than significant based on the following facts:

Construction equipment that would be used to build the Project has the potential to release oils, greases, solvents, and other finishing materials through accidental spills. Accidental releases of small quantities of these substances could contaminate soils and degrade the quality of surface water and groundwater, resulting in a public safety hazard. However, the consequences of construction-related spills are not as great as other accidental spills and releases because the amount of hazardous material released during a construction-related spill is small because the volume in any single piece of construction equipment is generally less than 50 gallons, and fuel trucks are limited to 10,000 gallons or less. Moreover, the handling and disposal of these materials will be governed according to regulations enforced by CUPA, Cal/OSHA, and DTSC, as previously discussed. In addition, regulations under the federal Clean Water Act require contractors to avoid allowing the release of materials into surface waters as part of their SWPPP and NPDES permit

requirements (see Draft EIR Section 3.8, *Hydrology and Water Quality*, for a discussion of SWPPPs). Consequently, it is not anticipated that use of hazardous materials during construction would result in reasonably foreseeable upset or accident conditions that would cause significant hazard to the public or environment. This impact would be less than significant, and no mitigation is required.

Impact HAZ-7: Impairment of or physical interference with implementation of an adopted emergency response plan or emergency evacuation plan

The EIR concluded the impact is less than significant based on the following facts:

Construction of the proposed Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. With the exception of occasional short-term closures of up to 2 to 4 weeks, which are less than or equivalent to the current annual maintenance closures, the existing bridge will remain open during construction of the new bridge. Traffic controls would be implemented during construction, although minimal traffic restrictions are anticipated. If needed, temporary single-lane traffic controls would be implemented. The Project contractor will be required to prepare a traffic control plan that must be approved by the County. Access for emergency vehicles through the Project area would be maintained at current conditions at all times. When a closure is implemented, traffic would be rerouted on Rock Creek Road, a detour of as much as 20 miles, and the current route used by large emergency vehicles because the existing Mosquito Road Bridge cannot accommodate them. Upon completion, the Project will significantly increase emergency response times in the Project area. This impact would be less than significant, and no mitigation is required.

HYDROLOGY, WATER QUALITY, AND WATER RESOURCES

Impact WQ-1: Potential to violate any water quality standards or waste discharge requirements

The EIR concluded the impact is less than significant based on the following facts:

Construction Impacts

Implementation of the Project would include construction activities, such as asphalt demolition, excavation, rock drilling, grading, paving, and landscaping. Two large construction staging areas will be used to store equipment and materials. These land-disturbing activities and placement of stockpiles within proximity to drainage culverts or nearby surface waters may result in a temporary increase in sediment loads and pollutants to the South Fork American River, and can be transported to downstream locations and degrade water quality.

The delivery, handling, and storage of construction materials and wastes (e.g., concrete form and construction debris), and the use of heavy construction equipment, could also result in stormwater contamination, affecting water quality. Construction activities may involve the use of chemicals and operation of heavy equipment that could result in accidental spills of hazardous materials (e.g., fuel and oil) during construction activities that could enter the groundwater aquifer or nearby surface waterbodies via runoff or storm drains. Constituents in fuel, lubricating oil, and grease can be acutely toxic to aquatic organisms and/or bio-accumulate in the environment. Staging areas or construction sites can be sources of pollution because of the use of paints, solvents, cleaning agents, and metals during construction.

Operation Impacts

Operation and maintenance activities of the Project would be similar to existing operation and maintenance activities, including landscape maintenance, bridge maintenance, and vehicle use. Leaks of fuel or lubricants, tire wear, and fallout from exhaust and runoff from impervious surfaces could contain nonpoint pollution sources typically associated with automobiles. Heavy metals, oil, grease, and polycyclic aromatic hydrocarbons are common pollutants in road runoff, and roadside landscaping can introduce pesticides and fertilizers. Runoff from vehicles on bridges or sediment can be discharged into streams during rain events and through normal usage and aging. Roadside ditches would be constructed to convey stormwater from the roadway. Implementation of the Project would not result in an increase in vehicle use, and therefore the amount and types of pollutants associated with vehicle and road use would not increase compared to existing conditions. Impacts will be minimized through implementation of BMPs and other measures specified in the Construction General Permit SWPPP, the 401 Water Quality Certification, and the Section 404 Permit. The Project will also be in compliance with El Dorado County MS4 requirements that include provisions for post construction stormwater runoff site retention and water quality with a potential to improve site runoff performance after project completion. The impact would be less than significant, and no mitigation is required.

Impact WQ-3: Potential to 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 that would result in substantial erosion or siltation on-site or off-site

The EIR concluded the impact is less than significant based on the following facts:

The proposed bridge would be likely be constructed using segmental construction or concrete arch methods. These methods would eliminate the need for work in the South Fork American River and the need to divert river flows. Project construction activities would temporarily alter existing drainage patterns and could result in local (on-site) and temporary erosion and siltation during construction or the removal or modification of drainage culverts.

Excavation and the exposure of shallow soils related to grading could result in erosion and sedimentation. For roadway approaches, cut and fill slopes will be constructed on approximately 2:1 (horizontal: vertical) conditions and seeded with native seed mixes to protect against erosion. Standard BMPs to ensure erosion and sedimentation control during construction would also be undertaken as part of the Project, such as a SWPPP that the construction contractor would be required to prepare and implement. Preparation and implementation of the Grading Plan, compliance with the County's Grading, Erosion and Sediment Control Ordinance and the SWPPP would reduce the potential for substantial erosion or siltation on-site or off-site or alteration of existing drainage patterns that would result in substantial erosion or siltation on-site or off-site. The impact would be less than significant, and no mitigation is required.

Impact WQ-4: Potential to 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 that would result in flooding on-site or off-site

The EIR concluded the impact is less than significant based on the following facts:

Construction would occur well above the river elevation and outside of the channel and would not substantially alter the existing drainage pattern of the site or area or alter the course of the river. Implementation of the Project would involve the construction of new impervious surfaces, including roadways on predominantly undeveloped land. The accumulation of sediment could result in the blockage of flows, potentially causing increased localized ponding or flooding. Although drainage patterns may be temporarily altered, the proposed Project would not increase stormwater runoff that would exceed the capacity of existing or planned stormwater drainage systems or result in on-site or off-site flooding. The pre- and post-development peak flows of the 10-year and 100-year storms will comply with the guidelines and procedures of the El Dorado County Drainage Manual.

Preparation and implementation of the Grading Plan, compliance with the Grading, Erosion and Sediment Control Ordinance, NPDES Construction General Permit, and the SWPPP will reduce the potential for flooding on-site or off-site as a result of altering existing drainage patterns, or substantially increasing the rate or amount of runoff that would result in substantial flooding on-site or off-site. The impact would be less than significant, and no mitigation is required.

Impact WQ-5: Creation or contribution of runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff

The EIR concluded the impact is less than significant based on the following facts:

Roadside ditches would be constructed to convey stormwater from the roadway. Drainage culverts may be necessary to facilitate roadway drainage from one side of the road to the other. Drainage system outfalls would likely involve light rock slope protection to dissipate stormwater flow.

The Project would be designed to prevent potential additional runoff from the Project being discharged to the storm drain system and therefore would not create or contribute runoff water that would exceed the capacity of the existing stormwater drainage systems. Roadway approaches will be seeded with native seed mixes to protect against erosion, and allow stormwater drainage and infiltration from surface runoff. The final design will be required to meet several criteria, including the 100-year flood criteria for the bridge and local storm drain performance criteria based on local manuals and watershed sizes, to ensure adequate storm drain capacity for the Project, and will comply with the guidelines and procedures of the El Dorado County Drainage Manual. The impact would be less than significant, and no mitigation is required.

Impact WQ-6: Potential to otherwise substantially degrade water quality

The EIR concluded the impact is less than significant based on the following facts:

In contrast to Impact WQ-1, which discusses impacts involving violations of water quality objectives and standards, this impact addresses other water quality impacts, such as those that can result from wetland dredge and fill. Construction activities that require work within waters of the United States/State and navigable waters trigger compliance with USACE jurisdiction under Section 404 of the CWA, Section 10 of the River and Harbor Act, and Central Valley RWQCB jurisdiction under CWA Section 401. The project will not require permanent improvements within waters of the United States and will not otherwise degrade water quality. Therefore, the impact would be less than significant and no mitigation is required.

Impact WQ-8: Placement within a 100-year flood-hazard area of structures that would impede or redirect flood flows

The EIR concluded the impact is less than significant based on the following facts:

The method of bridge construction limits the number of supports and does not result in supports in the floodplain of the South Fork American River or supports in the water. Therefore, new structures would not be placed within a 100-year flood-hazard area that may impede or redirect flood flows.

The impact would be less than significant, and no mitigation is required.

Impact WQ-9: Exposure of 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

The EIR concluded the impact is less than significant based on the following facts:

The Project is within a special flood-hazard area, Flood Zone A, which is a 100-year floodplain that is subject to river flooding. However, no structures would be placed within a 100-year flood-hazard area and the proposed bridge would be elevated approximately 400 feet above the South Fork American River Canyon, which is approximately 1,730 feet above sea level. There are no major reservoirs or levees located upstream of the Project site. Because there are no major reservoirs or levees located upstream of the Project site, there would be no exposure of people or structures to flood impacts as a result of dam or levee failure and the Project would not expose people or structures to a significant risk of loss, injury, or death involving flooding and the impact would be less than significant. No mitigation is required.

LAND USE PLANNING AND AGRICULTURAL RESOURCES

Impact LU-4: Conversion of Important Farmland to nonagricultural use

The EIR concluded the impact is less than significant based on the following facts:

Proposed Project improvements requiring temporary construction disturbance, temporary easements, and permanent easements would affect lands in the Project area that are mapped as both Grazing Land (G) and Farmland of Local Importance (L) by the DOC FMMP (Figure 3.9-4).

The proposed Project would require approximately 318,000 square feet in permanent easements for the realigned roadway segment, crossings structure, and access roads. An estimated 160 feet of roadway approaching the bridge structure, beginning at the southeast terminus and extending northwest toward the river crossing, would require the acquisition of up to 36,000 square feet (0.83 acre) of Farmland of Local Importance for permanent easements. This represents less than 0.001 percent of farmland in the County. No portion of the area designated as Farmland of Local Importance by the state is currently used as farmland, and much of it is on sloped land that would make agricultural activities difficult.

The County is required to submit notification to the DOC to notify public acquisition of Important Farmland. The notification would include the acreage (0.83 acre) and type of farmland (nonprime), as well as a description of why the land acquisition is necessary for public improvement. This impact would be less than significant. No mitigation is required.

Impact LU-5: Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract

The EIR concluded the impact is less than significant based on the following facts:

There are no farmlands under Williamson Act contract present within the Project area. The proposed Project would not require the temporary or permanent acquisition of land designated by the County as Timberland Preserve Zones. Thus, the proposed Project would not conflict with the Timberland Productivity Act or other forest land protections. The impact would be less than significant. No mitigation is required.

Impact LU-6: Other changes in the existing environment that, due to their location or nature, could result in conversion of farmland to nonagricultural use

The EIR concluded the impact is less than significant based on the following facts:

The temporary easements required on the Grazing Lands (see Impact LU-4 on page 3.9-8 of the Draft EIR) would not result in conversion of farmland to nonagricultural use. There would be no other changes associated with the proposed Project that would result in conversion of farmland to nonagricultural use. The impact would be less than significant. No mitigation is required.

NOISE AND VIBRATION

Impact NOI-1: Exposure of persons to or generation of noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies

The EIR concluded the impact is less than significant based on the following facts:

Construction Noise

During construction of the Project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Table 3.10-13 summarizes noise levels produced by construction equipment that is anticipated to be used for the Project.

Table 3.10-13. Construction Equipment and Associated Noise Levels

Equipment	Construction Purpose	L _{max} at 50 feet (dBA)
Asphalt Concrete Paver	Paving roadways	77
Backhoe	Soil manipulation and drainage work	78
Rock drilling equipment	Rock excavation and tie-down anchor installation	81
Bulldozer/Loader	Earthwork construction, cleaning and grubbing, tree removal	82
Cranes	Placement of bridge materials, placing of forms, and rebar	81
Dump Truck	Fill material delivery/surplus removal	76
Excavator	Soil and rock manipulation	81
Front-end Loader /	Dirt or gravel manipulation	79

Equipment	Construction Purpose	L _{max} at 50 feet (dBA)
Bobcat		
Grader	Ground leveling	85
Haul Trucks	Earthwork construction; large tree removal; material delivery	76
Concrete pump systems	Concrete delivery to various locations along the bridge	81
Roller	Earthwork and compacting	80
Scraper	Earthwork construction; clearing and grubbing	84
Truck with Seed Sprayer	Erosion control and landscaping	76
Water Truck	Earthwork construction; clearing and grubbing	76

Source: Federal Highway Administration 2006.

To provide a conservative analysis, modeling for construction noise assumed that three of the loudest pieces of equipment proposed to be used for Project construction (a bulldozer, grader, and scraper) would be operating simultaneously in close proximity to one another on site. Although pile driving may be required and would be a louder activity, pile driving would occur further away from residences than other project-related construction activities. Noise effects specific to pile driving are analyzed below. The combined noise level (both L_{max} and L_{eq}) from operation of a bulldozer, grader, and scraper was calculated. L_{eq} values were calculated from L_{max} values assuming estimated utilization factors (the fraction of time that each piece of equipment is assumed to be operating). Calculated average (L_{eq}) construction noise levels at various distances from the Project site are shown in Table 3.10-14.

Table 3.10-14. Project Construction Noise Levels (L_{eq}) at Various Distances

Source Data:		Utilization Factor	L _{eq} Sound Level (dBA)	
Source 1: Bulldozer - Sound level (dBA) at 50 feet = 82		0.4	78.0	
Source 2: Scraper - Sound level (dBA) at 50 feet = 84		0.4	80.0	
Source 3: Grader - Sound level (dBA) at 50 feet = 85		0.4	81.0	
Calculated Data:				
All Sources Combined - L _{max} sound level (dBA) at 50 feet =			89	
All Sources Combined - L _{eq} sound level (dBA) at 50 feet =			85	
Distance Between Source and Receiver (ft.)	Geometric Attenuation (dB) ^a	Ground Effect or shielding Attenuation (dB) ^b	Calculated L _{max} Sound Level (dBA)	Calculated L _{eq} Sound Level (dBA)
50	0	0.0	89	85
100	-6	-1.5	81	77
200	-12	-3.0	74	70
300	-16	-3.9	69	65

Distance Between Source and Receiver (ft.)	Geometric Attenuation (dB) ^a	Ground Effect or shielding Attenuation (dB) ^b	Calculated L _{max} Sound Level (dBA)	Calculated L _{eq} Sound Level (dBA)
400	-18	-4.5	66	62
500	-20	-5.0	64	60
600	-22	-5.4	62	58
700	-23	-5.7	60	56
800	-24	-6.0	59	55
900	-25	-6.3	57	53
1000	-26	-6.5	56	52
1200	-28	-6.9	54	50
1400	-29	-7.2	52	48
1600	-30	-7.5	51	47
1800	-31	-7.8	50	46
2000	-32	-8.0	49	45
2500	-34	-8.5	46	42
3000	-36	-8.9	44	40

Notes:

Source: Federal Highway Administration 2006.

^a Geometric attenuation based on 6 dB per doubling of distance.

^b Ground affect attenuation based on 1.5 dB per doubling of distance.

This calculation does not include the effects, if any, of local shielding from walls, topography, trees or other barriers which may reduce sound levels further.

There are a few residences located near the southern boundary of the proposed Project area, and at times, construction equipment could be as close as 50 feet from residential land uses. The results in Table 3.10-14 indicate concurrent operation of these three pieces of equipment would result in a noise level of 85 dBA Leq at 50 feet and 77 dBA Leq at a distance of 100 feet.

Impact pile driving may also occur as a part of Project construction. Although general construction activities may occur as close as 50 feet to a nearby residence (as discussed above), pile driving would occur 300 feet or more from the nearest residence. At a distance of 300 feet, the average noise level from pile driving would be approximately 75 dBA Leq. Calculated average (Leq) pile driving noise levels at various distances from the Project site are shown in Table 3.10-15. (See page 3.10-15 and 3.10-16 of Draft EIR.)

During the hours of 7 a.m. to 7 p.m. on weekdays and 8 a.m. to 5 p.m. on weekends and federally recognized holidays, construction noise associated with the actual construction of a project is exempt from the numerical noise standards. The proposed construction schedule for the Project includes construction during mostly exempted hours (7 a.m. to 7 p.m. on weekdays and 8 a.m. to 6 p.m. on Saturdays), with only 1 hour (5 p.m. to 6 p.m. on Saturdays) of construction proposed during non-exempt hours.

Although 1 hour per week of Project construction may not qualify under this exemption, the County General Plan also states that the noise standards do not apply to public projects that are intended to alleviate traffic congestion and safety hazards. As discussed in Draft EIR Chapter 2, *Project Description*, the current bridge has a sufficiency rating of 12.5 out of 100 and is considered structurally deficient. As such, construction of the proposed Project will alleviate a safety hazard, and is considered to be exempt from the construction noise standards from the General Plan. According to the Mosquito Fire Protection District Chief, emergency vehicle response times from Mosquito to Placerville are currently 45 minutes or longer on Rock Creek Road, which was closed numerous times in early 2017 due to slides. With the new proposed Mosquito Bridge, response times are anticipated to reduce from 45 minutes to 10-15 minutes. Although construction activities may increase noise in the Project area temporarily, construction would be short-term, occurring over a period of 1 to 2 years (2018 to 2019), occur during mostly exempted hours, and would be exempt from noise standards in the General Plan because Project construction would alleviate safety hazards related to the existing structurally deficient bridge and would substantially reduce emergency response times. It will also reduce congestion near the existing Mosquito Bridge when vehicles are waiting to cross. Impacts related to construction noise would be less than significant, and no mitigation is required.

Operational Noise

Traffic noise was modeled for existing and Year 2034 conditions (with and without Project) using peak-hour traffic volumes. The Project proposes to replace a structurally deficient bridge and would not directly result in an increase in overall traffic. The Traffic and Transportation Technical Memorandum for the Project (Quincy Engineering 2015) concluded that the total future (Year 2034) peak hour ADT would be equal with or without Project implementation. However, with the proposed Project, large trucks would be able to utilize the bridge and the roadways surrounding the bridge, which is not currently possible.

Operational noise from the future No-Project and future With-Project scenarios would, therefore, only differ due to the fact that With-Project conditions would include noise from truck traffic, which is greater than noise from passenger cars or automobiles. Operational noise also includes noises caused by braking and acceleration as vehicles travel into and out of the canyon. This would be reduced in the future With-Project scenario since the bridge alignment both reduces the number of switchbacks and changes in the roadway elevation through the canyon.

Based on monitoring results, weekday Ldn values were within 1 dB of the worst-hour weekday Leq noise levels at both sites LT-1 and LT-2. Therefore Ldn values are assumed to be equal to modeled worst-hour Leq noise levels.

Nearby receivers that were modeled under all conditions include the residential receptors at 8200 Mosquito Road, 8140 Mosquito Road, and 8061 Mosquito Road. Table 3.10-16 below presents the modeling results for the Existing, Year 2034 No-Project, and Year 2034 With-Project conditions.

Table 3.10-16. Modeled Noise Levels (L_{dn}) at Residential Receptors

Residential Receptor ^a	Existing (L _{dn})	Future 2034 No Project (L _{dn})	Future 2034 With-Project (L _{dn})	Significant Impact (greater than 60 L _{dn})?
R1: 8200 Mosquito Road	37	40	42	No
R2: 8140 Mosquito Road	39	42	44	No
R3: 8061 Mosquito Road	41	44	47	No

^a Residential noise levels modeled at residential outdoor use areas. Table 3.10-8 (Table 6-1 from the County Noise Element) states that “in Rural Regions, an exterior noise level criterion of 60 dB L_{dn} shall be applied at a 100-foot radius from the residence.” Noise levels at a 100-foot radius may be higher than the noise levels reported in this table, but would still be below 60 L_{dn} due to the relatively small volume of vehicle traffic that uses this roadway.

Project implementation would not result in traffic noise levels in excess of the 60 L_{dn} threshold at nearby residential receptors; therefore, Project impacts related to operational noise would be less than significant, and no mitigation is required.

Impact NOI-2: Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels

The EIR concluded the impact is less than significant based on the following facts:

Land uses in which groundborne vibration could potentially interfere with operations or equipment, such as research, manufacturing, hospitals, and university research operations are considered “vibration-sensitive” (Federal Transit Administration 2006). The degree of sensitivity depends on the specific equipment that would be affected by the groundborne vibration. No vibration-sensitive land uses are located within 200 feet of the Project area. Because no vibration-sensitive land uses are located within 200 feet of the Project area, construction vibration would not affect vibration-sensitive land uses. However, excessive levels of groundborne vibration of either a regular or an intermittent nature can result in annoyance to residential uses.

The operation of heavy construction equipment may generate localized groundborne vibration in areas adjacent to the construction site, especially during the operation of high-impact equipment, such as pile drivers. Vibration from non-impact construction activity and truck traffic is typically below the threshold of perception when the activity is more than approximately 50 feet from the noise-sensitive land uses (Federal Transit Administration 2006). Consequently, for Project construction activities that do not involve the use of high-impact equipment and construction sites that are more than 50 feet from noise-sensitive land uses, groundborne vibration impacts are expected to be less than significant.

One residence is located approximately 50 feet from some of the roadway construction necessary for the Project; vibration could be perceptible at this location or at other nearby residences (all other residences are located over 100 feet away from construction activities), depending on the amount of and specific types of equipment being utilized. However, equipment capable of generating perceptible vibration levels would only be in close proximity to these residences intermittently, and for relatively short periods of time. Of the non-impact (non-pile driving) equipment proposed for use in Project construction, large earth-moving equipment (such as a large bulldozer) would be the most likely to result in perceptible vibration levels. A large bulldozer

would result in a vibration level of approximately 0.031 PPV at a distance of 50 feet. This is below the “distinctly perceptible” level of 0.04 PPV, and below the vibration damage threshold for older residential buildings of 0.3 PPV. Because all non-impact equipment associated with Project construction would generate less than “distinctly perceptible” vibration levels at surrounding residences, non-impact equipment used for Project construction would not result in the exposure of persons to excessive groundborne vibration. As such, vibration impacts from non-impact construction equipment would be less than significant, and no mitigation is required.

Because Project construction could require the use of pile drivers, which are considered to be high-impact equipment, further analysis was conducted to determine the potential vibration levels from pile driving at nearby residential land uses. As shown in Table 3.10-3 on page 3.10-5 of the Draft EIR, an impact pile driver has the potential to generate a vibration level of 1.518 PPV at a reference distance of 25 feet. Pile driving for Project construction would occur at a distance of 300 feet or more from the nearest residential receptor. Per the equation shown in Draft EIR Section 3.10.1.2 ($PPV = PPV_{ref} \times (25/distance)^{1.5}$), impact pile driving could generate a vibration level of 0.037 PPV at a distance of 300 feet. This vibration level would be below the vibration damage threshold for older residential buildings (0.3 PPV) shown in Table 3.10-4 on page 3.10-5 of the Draft EIR, and below the “distinctly perceptible” vibration level (0.04 PPV) shown in Table 3.10-5 on page 3.10-6 of the Draft EIR (California Department of Transportation 2013a). As pile drivers would result in vibration levels less than the “distinctly perceptible” level of 0.04 PPV and the damage threshold of 0.3 PPV at a distance of 300 feet, pile driving activities associated with the Project would result in less-than-significant impacts, and no mitigation is required.

Impact NOI-3: Potential to result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project

The EIR concluded the impact is less than significant based on the following facts:

As discussed under Impact NOI-1 [see page 3.10-13 of the Draft EIR], operational traffic noise associated with Project implementation would not result in traffic noise levels in excess of the applicable local standards ($60L_{dn}$ for nearby rural residential receptors). The proposed Project would therefore not result in a substantial permanent increase in noise levels at noise sensitive receptor locations in the Project vicinity, and this impact would be less than significant. No mitigation is required.

PUBLIC SERVICES AND UTILITIES

Impact PSU-1: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services: fire protection; police protection; schools; other public facilities

The EIR concluded the impact is less than significant based on the following facts:

The proposed Project would not result in a population increase, require new government facilities, or lead to the physical alteration of existing facilities, including fire and police protection, schools,

parks, or other public facilities. There are no community facilities within the study area and the Project will not physically alter any government facilities.

During construction, short-term closures of the existing bridge may be necessary. These closures generally would coincide with the County's planned maintenance (approximately 2- to 4- week duration) and would not preclude travel along Mosquito Road to or from community facilities for extended durations. Road closures could affect the response times for emergency service providers. The County contract special provisions will require the contractor to prepare a Traffic Management Plan (see Chapter 2, *Project Description*, in the Draft EIR). Traffic controls would be implemented throughout all phases of construction to facilitate local traffic circulation and through-traffic requirements, although minimal restrictions are anticipated. Emergency service providers including the police and fire departments would be notified as early as possible in order to plan for lane closures and other potential delays related to construction activity. If needed, temporary single-lane traffic controls would be implemented. When a closure is implemented, traffic would be rerouted on Rock Creek Road, a detour of as much as 20 miles, which is the current route used by large emergency vehicles because the existing Mosquito Road Bridge cannot accommodate them. It is expected that emergency service providers in the Project vicinity would be minimally affected during construction. This impact would be less than significant, and no mitigation is required.

Project operation would make the Mosquito Road crossing over the South Fork American River more reliable, safer, and more efficient for travelers and for emergency service providers. According to the Mosquito Fire Protection District Chief, emergency vehicle response times from Mosquito to Placerville are currently 45 minutes or longer on Rock Creek Road, which was closed numerous times in early 2017 due to slides. With the new proposed Mosquito Bridge, response times are anticipated to reduce from 45 minutes to 10-15 minutes. This would be a beneficial effect of the Project.

Impact PSU-4: Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects

The EIR concluded the impact is less than significant based on the following facts:

Realignment of the bridge and roadway approaches would require construction of roadside ditches to convey stormwater from the realigned roadway. Drainage culverts may be necessary to facilitate roadway drainage from one side of the road to the other. Drainage system outfalls would likely involve light rock slope protection to dissipate stormwater flow. Other than provision of these facilities to direct stormwater flow for the proposed Project, there would be no need to construct new or expand existing stormwater facilities in the Project vicinity. This impact would be less than significant. No mitigation is required.

Impact PSU-7: Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs

The EIR concluded the impact is less than significant based on the following facts:

If the existing bridge were to be demolished, which was a possibility at the time the Draft EIR was issued, the EIR provided that construction debris from demolition would have been transported off-

site and disposed of at a permitted landfill site. The amount of solid waste generated by the Project or even removal of the existing bridge would not be great enough that it would reduce the capacity of a permitted landfill. This impact would have been less than significant. No mitigation is required.

Impact PSU-9: Result in long-term disruption of telecommunications services.

The EIR concluded the impact is less than significant based on the following facts:

The Project may require relocation of the aerial telecommunications for AT&T and PG&E along the roadway on the Placerville side of the canyon. If the utilities remain in their current location, the roadway to the existing bridge location would likely be used for access by the utility agencies.

Segments of roadway may then require transfer of title to the utility companies that require access. If the utilities are relocated, access roadways would need to be provided on the canyon slopes to remove the facilities. This would also require titles or easements for new utility poles along the proposed roadway and placement of utilities on (within) the new bridge. Relocation of the utility poles could result in short-term temporary disruption of telecommunications services. The County has already initiated coordination with AT&T and PG&E and will continue to evaluate the need for relocation of the utility lines. Should relocation be required, the agencies would develop and implement a procedure to minimize the effects on affected lines and transition to the new system as quickly as possible to ensure no long-term disruption of services would occur. This impact would be less than significant and no mitigation is required.

Impact PSU-10: Lead to a wasteful, inefficient, and unnecessary usage of energy

The EIR concluded the impact is less than significant based on the following facts:

Project construction would result in short-term increased energy requirements through the use of gasoline and diesel fuels for operation of heavy-duty construction equipment and vehicles. Materials manufacturing would also consume energy, although information on the intensity and quantity of fuel used during manufacturing is currently unknown and beyond the scope of project-level environmental analyses. An analysis of energy associated with materials manufacturing is considered speculative and is not presented in this Draft EIR.

The use of heavy-duty trucks and construction equipment would result in a temporary increase in fuel consumption in the study area relative to the existing condition. As discussed in Draft EIR Section 3.2, *Air Quality*, the maximum average daily fuel usage would be 361 gallons of diesel fuel per day. For the evaluation of impacts on air quality emissions, this level of fuel usage falls below the screening threshold for exceedance of ambient air quality standards set by EDCAQMD. This level of fuel use is not considered excessive or wasteful.

Overall, in the long term the proposed Project would be expected to result in lower fuel consumption and energy use. The existing bridge requires extensive maintenance, which results in up to a 1-month road closure for maintenance construction activities each summer. Maintenance of the new bridge would be less frequent and less intensive and expected to result in lower fuel consumption.

The proposed Project would generate a negligible increase in traffic volumes from large trucks compared to no build conditions (see Section 3.13, *Traffic and Circulation*, in the Draft EIR). However, there would likely be additional fuel savings because the new roadway approaches and

bridge crossing would have a shorter travel path (approximately 1 mile less compared to the existing bridge) and vehicles would no longer idle while waiting to cross the existing one-lane bridge. The shorter travel distance and anticipated gains in travel speed from the current 0 to 10 miles per hour to approximately 25 miles per hour improve traffic conditions and could result in further fuel efficiencies, and have a negligible effect on fuel consumption compared to existing conditions.

The new bridge would not result in a long-term continuous use of electricity or other energy sources and would have no effect on local or regional energy supplies and would not require additional capacity. There would be no effect on peak- or base-period demands for electricity or other forms of energy.

The energy use associated with construction and operation of the proposed Project would not conflict with applicable state or local energy legislation, policies, or standards and would not be considered wasteful, inefficient, or unnecessary. The impact on energy use would be less than significant. No mitigation is required.

RECREATION

Impact REC-1: 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

The EIR concluded the impact is less than significant based on the following facts:

Replacement of the Mosquito Road Bridge would not increase the use of any existing parks or recreational facilities that could lead to physical deterioration. The existing Mosquito Road Bridge location is informally used as a take-out point by rafters and kayakers, and the undeveloped area surrounding the bridge is used in its natural state for other recreational uses, including fishing and rock climbing. Vehicle access to the existing bridge site would be restricted once construction of the replacement bridge is complete. Access to the old roadway segments on one side of the river would be controlled by pipe gates, which would be closed on one side of the river once the new bridge is open for use. Non-motorized access to the river would continue, as under existing conditions, and vehicle access would be possible on one side of the river from dawn to dusk. The project thus would not result in a substantial physical deterioration of the area. The impact would be less than significant. No mitigation is required.

In an independent agreement separate from this Project, the County agreed to help facilitate informal parking for four to six cars, which recreationalists indicate is the current informal parking near the existing bridge. Essentially, the status quo for river access will remain, but neither this project nor the independent agreement anticipate or provide for the development of any recognized recreation facilities or developed parking areas. The recreational use of the undeveloped natural area is therefore expected to remain the same as the current use.

TRAFFIC AND CIRCULATION

Impact TRA-1: Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel, and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit

The EIR concluded the impact is less than significant based on the following facts:

Transportation Facilities

The proposed Project would realign Mosquito Road to bypass nonstandard portions of the roadway. These improvements are anticipated to reduce the extent and duration of maintenance, improve safety, and make roadway operations more efficient. During the construction period, short-term closures of the existing bridge may be required, but would coincide with the County’s planned maintenance and would not preclude travel along Mosquito Road for extended durations. As discussed in Draft EIR Chapter 2, *Project Description*, the construction contractor will prepare and implement a Traffic Management Plan and any required road closures will be communicated in advance through outreach to residents and through the use of portable message signs.

As shown in Table 3.13-2, traffic volumes are anticipated to nearly double by 2034, but no difference in ADT or truck volumes is anticipated between the proposed Project and No Project scenarios for Mosquito Road. There is however a small increase in truck volume across Mosquito Bridge between the proposed Project and No Project scenarios since the existing bridge does not accommodate access of larger vehicles (i.e. emergency and larger commercial vehicles, trucks with trailers, etc.) across the bridge.

Table 3.13-2. Existing and Future Traffic Volumes

Year	Scenario	AM Peak Hour ADT	AM Peak Hour Count	AM Peak Hour %
2015	Proposed Project	1,256	13	0.4
	No Project	1,256	13	0
2034	Proposed Project	2,521	26	0.8
	No Project	2,521	26	0

Table 3.2-7. Average Daily Traffic on Mosquito Road Bridge

Scenario	Total ADT	% Trucks	Truck ADT
Existing (2015)			
No Build	1,256	0%	0
Build	1,269	1.02%	13
Future (2034)			
No Build	2,521	0%	0
Build	2,547	1.02%	26

Source: Terry A. Hayes Associates Inc. 2016.
ADT = Average Daily Traffic

Access, Circulation, and Parking

Project improvements are anticipated to reduce the extent and duration of the maintenance requirements for crossing the South Fork American River, improve safety, and make roadway operations more efficient, all of which would improve access and circulation in the Project vicinity. Informal parking on the side of the road and off-road in the bypassed section of Mosquito Road would be facilitated to the minimal extent it is currently available. Similarly informal bicycle and pedestrian paths and use of the bypassed section and new sections of Mosquito Road would be facilitated to the extent it is currently today (with the exception that areas of the new section will be wider to accommodate current design standards).

Plan Consistency

The proposed Project is listed in the MTP/SCS as a project that would be implemented. The Project is also consistent with the goals, policies, and performance standards of the El Dorado County General Plan. The design of the proposed Project complies with the applicable road design standards. The proposed Project would bypass a nonstandard bridge and approaches, thereby improving the operational efficiency. And, the proposed Project would result in safety improvements, which would support the General Plan provision of a unified, coordinated, and cost-efficient countywide road and highway system that ensures the safe, orderly, and efficient movement of people and goods.

Impact TRA-5: Result in inadequate emergency access

The EIR concluded the impact is less than significant based on the following facts:

Short-term closures of the existing bridge that may be required during the construction period would coincide with the County's planned maintenance and would not preclude travel along Mosquito Road for extended durations. With the exception of those occasional short-term closures of up to approximately 2 to 4 weeks, the existing bridge would remain open during construction of the new bridge. The County or its construction contractors will conduct early coordination regarding any required road closures with emergency service providers, including fire and police, to ensure minimal disruption and access through the Project area would be maintained at all times. Traffic controls would be implemented during construction, although relatively minimal traffic restrictions are anticipated. If needed, temporary single-lane traffic controls would be implemented. The Project contractor would be required to prepare a traffic management plan that must be approved by El Dorado County. Access for emergency vehicles through the Project area would be maintained at current conditions at all times. When a closure is implemented, traffic would be rerouted on Rock Creek Road, a detour of as much as 20 miles, which is the current route used by large emergency vehicles because the existing Mosquito Road Bridge cannot accommodate them. This impact would be less than significant, and no mitigation is required.

Project operation would make the Mosquito Road crossing over the South Fork American River more reliable, safer, and more efficient for travelers and for emergency service providers. This would be a beneficial effect of the Project.

4.0 FINDINGS REGARDING IMPACTS WHICH ARE SIGNIFICANT OR POTENTIALLY SIGNIFICANT WHICH WERE MITIGATED BELOW A LEVEL OF SIGNIFICANCE

The EIR found the following environmental impacts to be significant or potentially significant in the absence of mitigation measures. Mitigation measures identified in the EIR for each of these impacts will avoid or substantially lessen potentially significant or significant effects of the Project. Public comments did not provide additional evidence to revise the impact analysis or conclusions of the EIR. As such, the County makes Finding 1, finding that changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

The following findings do not attempt to describe the full analysis of each environmental impact contained in the EIR. Instead, these findings provide a summary description of each significant and potentially significant impact of the Project, identify the applicable mitigation measures identified in the EIR and hereby adopted by the County, and state the County's findings on the significance of each impact after imposition of the adopted mitigation measures.

A full explanation of these environmental impacts, mitigations, and conclusions can be found in the EIR (see Draft EIR, Chapter 3, *Impact Analysis*). In making these Findings, the County adopts and incorporates in these Findings the determinations and conclusions of the EIR relating to environmental impacts and mitigation measures.

For all adopted mitigation measures, the County hereby finds that the stated mitigation measure has been incorporated in its entirety to the MMRP. The County finds that each such measure is appropriate and feasible and will lessen the impact to a less than significant level. The County has adopted all of the mitigation measures identified in the Final EIR and has included each in the adopted MMRP which is included with these Findings as Attachment A.

BIOLOGICAL RESOURCES

Impact BIO-1: 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 CDFW or USFWS (less than significant with mitigation)

Impact BIO-2: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS (less than significant with mitigation)

Impact BIO-3: Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the CWA (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.), through direct removal, filling, hydrological interruption, or other means (less than significant with mitigation)

Impact BIO-7: Potential for construction activities to introduce or spread invasive plant species (less than significant with mitigation)

Findings.**The County hereby makes Finding 1.****Facts in Support of Findings.****The following mitigation measures will mitigate the impacts below the level of significance.*****Mitigation Measure BIO-1: Install Construction Barrier Fencing around the Construction Area to Protect Sensitive Biological Resources to Be Avoided***

El Dorado County's contractor will install orange construction barrier fencing between the construction area and adjacent sensitive biological resource areas as one of the first orders of work. Sensitive biological resources that occur adjacent to the construction area include sensitive natural communities and habitats for special-status wildlife such as foothill yellow-legged frog, Blainville's horned lizard, bald eagle, California spotted owl, willow flycatcher, other migratory birds, and roosting bats.

The area that would be required for construction, including staging and access, is shown in Figure 3.3-1. Before construction begins, the construction contractor will work with the Project engineer and a resource specialist to identify the locations for the orange construction fencing and will place stakes to indicate these locations. The fencing will be installed before construction activities are initiated, maintained throughout the construction period, and removed when construction is completed. The protected areas will be designated as environmentally sensitive areas and clearly identified on the construction plans. To minimize the potential for snakes and other ground-dwelling animals being caught in the orange construction fencing, the fencing will be placed with at least a 1-foot gap between the ground and the bottom of the fencing. The exception to this condition is where construction barrier fencing overlaps with erosion control fencing and must be secured to prevent sediment runoff.

Mitigation Measure BIO-2: Conduct Environmental Awareness Training for Construction and Mitigation Planting Area Personnel

El Dorado County will retain a qualified professional to develop and conduct environmental awareness training for construction employees and personnel who will prepare the site and/or maintain the mitigation planting area on the importance of on-site biological resources, including sensitive natural communities; mature trees to be retained; special-status wildlife habitats; potential nests of special-status birds, and other migratory bird species including swallows; and roosting habitat for special-status bats, as applicable. In addition, construction employees will be educated about the importance of controlling and preventing the spread of invasive plant infestations.

The environmental awareness program will be provided to all construction and mitigation planting area personnel to brief them on the life history of special-status species in or adjacent to the Project area, the need to avoid impacts on sensitive biological resources, any terms and conditions required by state and federal agencies, and the penalties for not complying with biological mitigation requirements. If new construction or mitigation area personnel are added to the Project, the contractor's superintendent or El Dorado County will ensure that the personnel receive the mandatory training before starting work. An environmental awareness handout that describes and illustrates sensitive resources to be avoided during Project

construction and work/maintenance at the mitigation area, and identifies all relevant permit conditions, will be provided to each person.

Mitigation Measure BIO-3: Retain a Qualified Biological Monitor to Conduct Periodic Monitoring during Construction

El Dorado County will retain a qualified biological monitor to conduct periodic construction monitoring in and adjacent to all sensitive habitats (i.e., interior live oak woodland, willow thickets, streams, and yellow star thistle or invasive weed as needed) in the construction area. The frequency of monitoring will range from daily to weekly depending on the biological resource. The monitor, as part of the overall monitoring duties, will inspect the fencing once a week to ensure that fencing around environmentally sensitive areas is intact. The biological monitor will assist the construction crew as needed to comply with all Project implementation restrictions and guidelines. The biological monitor also will be responsible for ensuring that the contractor maintains the staked and flagged perimeters of the construction area and staging areas adjacent to sensitive biological resources. The monitor will provide El Dorado County with a monitoring log for each site visit, which will be provided to interested agencies upon request.

Certain activities will require a biological monitor to be present for the duration of the activity or during the initial disturbance of an area to ensure that impacts on special-status species are avoided. The activities that require specific monitoring are identified below and include but are not limited to Mitigation Measures BIO-9, BIO-10, BIO-11, and BIO-12.

Mitigation Measure BIO-4: Protect Water Quality and Prevent Erosion and Sedimentation in Wetlands and Drainages

El Dorado County will ensure the construction specifications include the following water quality protection and erosion and sediment control BMPs, based on standard County/Caltrans requirements, in conjunction with state Regional Water Quality Control Board (RWQCB) to minimize construction-related contaminants and mobilization of sediment in wetlands and streams, including South Fork American River, in and adjacent to the study area.

The BMPs will be selected to achieve maximum sediment removal and represent the best available technology that is economically achievable and are subject to review and approval by the County. The County, in conjunction with a qualified stormwater designer (QSD), will perform routine inspections of the construction area to verify the BMPs are properly implemented and maintained. The County will notify contractors immediately if there is a noncompliance issue and will require compliance.

The BMPs will include, but are not limited to, the following:

- Ensure that equipment used in and around streams is in good working order and free of dripping or leaking engine fluids. All vehicle maintenance will be performed at least 300 feet from all streams. Any necessary equipment washing will be carried out where the water cannot flow into streams.

- Prepare and implement a hazardous material spill prevention, control, and countermeasure plan before construction begins that will minimize the potential for, and the effects of, spills of hazardous or toxic substances during construction. The plan will include storage and containment procedures to prevent and respond to spills and will identify the parties responsible for monitoring the spill response. The plan will include the following:
 - Prevent raw cement, concrete or concrete washings, asphalt, paint or other coating material, oil or other petroleum products, or any other substances that could be hazardous to aquatic life from contaminating the soil or entering watercourses.
 - Clean up all spills immediately according to the spill prevention, control, and countermeasure plan.
 - Avoid operation of vehicles and equipment in flowing water.
 - Provide areas located outside all stream OHWMs for staging and storing equipment, materials, fuels, lubricants, solvents, and other possible contaminants.
 - Ensure that areas where equipment is refueled or lubricated are storm-proofed to prevent contaminants from being discharged to the streams. Pump contaminated water to a holding tank for proper disposal.
- El Dorado County will review and approve the contractor's hazardous materials spill prevention, control, and countermeasure plan before allowing construction to begin.
- Prohibit the following types of materials from being rinsed or washed into the roads, shoulder areas, or gutters: concrete; solvents and adhesives; thinners; paints; fuels; sawdust; dirt; gasoline; asphalt and concrete saw slurry; and heavily chlorinated water.
- Dispose of any surplus concrete rubble, asphalt, or other rubble from construction at a local landfill.
- Prepare and implement an erosion and sediment control plan for the proposed Project. The plan will include the following provisions and protocols.
 - Runoff from disturbed areas will be made to conform to the water quality requirements of the waste discharge permit issued by the RWQCB.
 - Temporary erosion control measures, such as sandbagged silt fences, will be applied throughout construction of the proposed Project and will be removed after the working area is stabilized or as directed by the engineer. Soil exposure will be minimized through use of temporary BMPs, groundcover, and stabilization measures. Exposed dust-producing surfaces will be sprinkled daily, if necessary, until wet; this measure will be controlled to avoid producing runoff. Paved roads will be swept daily following construction activities.
 - The contractor will conduct periodic maintenance of erosion and sediment control measures.
 - An appropriate seed mix of native species will be planted on disturbed areas upon completion of construction.

- Cover or apply nontoxic soil stabilizers to inactive construction areas (previously graded areas inactive for 10 days or more) that could contribute sediment to waterways.
- Enclose and cover exposed stockpiles of dirt or other loose, granular construction materials that could contribute sediment to waterways. Material stockpiles will be located in non-traffic areas only. Side slopes will not be steeper than approximately 2:1. All stockpile areas will be surrounded by a filter fabric fence and interceptor dike.
- Contain soil and filter runoff from disturbed areas by berms, vegetated filters, silt fencing, straw wattle, plastic sheeting, catch basins, or other means necessary to prevent the escape of sediment from the disturbed area.
- Use other temporary erosion control measures (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) to control erosion from disturbed areas as necessary.
- Avoid earth or organic material from being deposited or placed where it may be directly carried into streams.
- Minimize the extent of all areas requiring clearing, grading, revegetation, and recontouring.
- Grade areas following construction to minimize surface erosion.
- Cover bare areas with mulch and revegetate all cleared areas.

El Dorado County also will obtain a CWA Section 404 permit from USACE and a Section 401 Water Quality Certification from the Central Valley RWQCB, which may contain additional BMPs and measures to ensure the protection of water quality.

Mitigation Measure BIO-5: Conduct Preconstruction Surveys for Blainville's Horned Lizard and Monitor Initial Ground Disturbance Work in Staging Areas

To avoid and minimize potential injury or mortality of Blainville's horned lizard, El Dorado County will retain a qualified wildlife biologist to conduct a preconstruction survey of suitable habitat within 24 hours of the start of construction activities. The biologist will survey the areas designated for staging activities (yellow star-thistle field, annual grassland, and Kentucky blue grass turf) for Blainville's horned lizard. If a Blainville's horned lizard is observed within the construction/staging area during the preconstruction survey, a biologist will be present during all vegetation clearing and grading to prepare the site. The biologist will monitor initial ground disturbing activities and if a horned lizard is observed, the animal will be allowed to leave to construction area on its own.

For the remainder of construction, the biologist will remain on call in case a Blainville's horned lizard is discovered. The construction crew will be instructed to notify the crew supervisor who will contact the biologist if this species is found dead or trapped within the construction area. Work in the area where the lizard is found dead or trapped will stop until the biologist arrives

and determines the appropriate course of action. If a horned lizard becomes trapped in the construction area and cannot leave on its own, CDFW will be contacted to obtain authorization or a permit to capture and relocate the horned lizard out of the construction area. The discovery of any dead Blainville's horned lizard will be reported to the County immediately and the County will notify CDFW within 24 hours of the discovery. If the County can determine that construction activities caused the death of the horned lizard, the County will take efforts to prevent a subsequent death of another horned lizard.

Mitigation Measure BIO-6: Avoid and Minimize Potential Disturbance of Woody Vegetation

The potential for long-term loss of woody vegetation will be minimized by trimming vegetation rather than removing entire trees or shrubs in areas where complete removal is not required. However, complete removal of shrubs (grubbing) may be necessary in parts of the temporarily affected staging areas. Trees or shrubs that only need to be trimmed will be cut at least 1 foot above ground level to leave the root systems intact and allow for more rapid regeneration. Cutting will be limited to the minimum area necessary within the construction zone. To protect nesting birds, Caltrans will not allow pruning or removal of woody vegetation between February 1 and September 30 without preconstruction surveys. A certified arborist will be retained to perform any necessary pruning or root cutting of retained trees. If a nest is found in a tree (or other vegetation) to be removed during preconstruction nest surveys (described below), the tree cannot be removed until the end of the nesting season.

Mitigation Measure BIO-7: Compensate for Temporary and Permanent Impacts on Interior Live Oak Woodland

Public Road Safety Projects are exempt from El Dorado County General Plan Policy 7.4.4.4. However, El Dorado County will avoid impacts to interior live oak woodland to the maximum extent feasible including but not limited to adjusting construction paths to avoid oak trees and considering the density of oak trees in locating staging and other areas. In areas where temporary or permanent impacts will occur in interior live oak woodland, mitigation will be implemented through the most current El Dorado County Oak Resources Management Plan (ORMP) or Policy 7.4.4.4 if applicable at the time of Project construction by applying a combination of the options listed below to ensure that all impacts are collectively mitigated to a less than significant impact.

Construction activities and improvement features will seek to avoid tree removals and oak woodland disturbances wherever possible to minimize impacts. Additionally, existing oak woodland habitat canopy characteristics will be considered in an effort to minimize impacts to oak woodland habitat as it pertains to post-construction canopy conditions. Onsite replanting of oak woodland vegetation will be done to the maximum extent practicable to mitigate for no more than half of the impacts, however due to physical constraints of the project area, and in efforts to minimize the acquisition of new right-of-way, there is little available suitable space for planting trees onsite to compensate for the temporary and permanent impacts to interior live oak woodland. Public Resources Code Section 21083.4(b) (2) (c) also limits replanting to one-half of the total mitigation for oak woodlands. Alternatively, onsite planting will be

supplemented with offsite planting and/or the purchase of mitigation credits. The proximity to the project will be considered when selecting locations.

The final impact areas will be confirmed by a qualified biologist or arborist based on actual disturbances and in cooperation with California Department of Fish and Wildlife (CDFW). The specific mitigation measure to include mitigation quantities and costs will be determined based on construction impacts associated with the actual project constructed and will ensure that mitigation collectively results in impacts that are less than significant.

The mitigation measures will include a combination of one or more of the options below:

- 1. In-Lieu Fee Fund.** Based on the costs of acquisition of land and conservation easements, management, monitoring, and administrative costs, the County will pay into an in-lieu fee fund for replacement of oak woodlands. Replacement will be according to the current ORMP requirements adopted by the County at the time of construction. Currently, the Project would mitigate at a 2:1 ratio (2 acres purchased for every 1 acre impacted) unless Option A of Policy 7.4.4.4 is satisfied, in which case mitigation would be at a 1:1 ratio under that option. The Board is currently considering a new ORMP that would require mitigation at a ratio of a minimum of 2:1 per acre for 75.1 – 100% oak woodland impact level; 1:1 per acre in the event that the percent of oak woodland impact can be minimized to 0 to 50%; or 1.5:1 for impacts at 50 to 75.1%. The standards in the County ORMPs are designed to mitigate impacts to less than significant and the Oak Woodland Management Plan for this Project will ensure that the ratios in the controlling ORMP are sufficient to mitigate the Project's impacts to less than significant.
- 2. Onsite and/or Offsite Replacement.** If this option is implemented, onsite replacement will not fulfill more than one-half of the mitigation for oak woodlands. As discussed under the prior option, the oak woodland replacement ratio for temporary and permanent impacts will be at a ratio of 2:1, 1.5:1, or 1:1, depending on actual impacts and the requirements of the current ORMP at the time of construction. If substitution of per acre formula is warranted with a per tree planting formula, a minimum of 2:1 tree planting formula (2 oak trees planted for every 1 removed) will be applied. The final required quantities and methods will be based on actual project disturbances and will be coordinated with a qualified biologist and/or arborist and with CDFW for impacts within their jurisdiction. The location of the oak woodland planting site will be determined prior to Project permitting and proximity to the Project will be achieved to the extent feasible. Temporarily disturbed areas will be replanted after construction. However, due to the limited area, right-of-way constraints, and steep topography available for onsite planting trees, the oak woodland compensation will likely require a supplementary off-site planting location. The County will prepare a Project Oak Woodland Management Plan when the final woodland disturbance area and replacement planting locations have been determined. Details of the number and species of trees and other applicable understory shrubs to be planted, based on the replacement ratio, as well as the specific planting locations, maintenance and irrigation needs, and annual monitoring requirements will be included in the Oak Woodland

Management Plan. The success criterion will be a minimum of 80 percent survival of all plantings in 3 years after planting, with annual survival goals to be met prior to the final monitoring. This survival criterion requires a higher relative rate of success for the 3 year monitoring period, and the monitoring duration is consistent with the project's funding requirements for the maximum 3 year post-construction monitoring period. If planting survival does not meet the criterion in any year, the potential reasons for failure will be analyzed and addressed in remedial measures, and additional plantings will be installed and monitored for the full 3 years. Monitoring, remedial measures, and replanting will continue until the final success criterion is met. After expiration of the initial 3 years, the County will, likely at its own cost, maintain the planted trees for an additional four years pursuant to the Public Resources Code.

3. **Mitigation Credits.** This compensatory option may be used to ensure that the ecological losses are offset, do not result in a net loss of oak woodland habitat, and reduce the impact to interior live oak woodlands to less than significant. Credits will be purchased from a mitigation bank, or resource area, that has been restored, established, enhanced, or in some circumstances, preserved for the purpose of providing compensation for the unavoidable impacts permitted under the regulatory framework. As discussed under the first option, the oak woodland replacement ratio for temporary and permanent impacts will be at a ratio of 2:1, 1.5:1, or 1:1, depending on actual impacts and the requirements of the current ORMP at the time of construction. The number of credits purchased will be determined in coordination with CDFW for impacts within their jurisdiction, with a qualified biologist and/or arborist and will be based on actual project disturbances.

Mitigation Measure BIO-8: Remove Vegetation during the Nonbreeding Season and Conduct Preconstruction Surveys for Nesting Migratory Birds

To the maximum extent feasible, tree removal will occur during the non-breeding season for most migratory birds (generally between October 1 and January 31). This is highly preferred because if an active nest is found in a tree (or other vegetation) to be removed during preconstruction nest surveys (described below), the tree cannot be removed until the end of the nesting season, which could delay construction. If trees cannot be removed between October 1 and January 31, the area where vegetation will be removed must be surveyed for nesting birds, as discussed below.

If construction activities are expected to begin during the nesting season for migratory birds and raptors (generally February 1 through September 30), El Dorado County will retain a qualified wildlife biologist with knowledge of the relevant species to conduct nesting surveys before the start of construction. A survey will be conducted for migratory birds, including raptors. The survey will include a search of all trees and shrubs that provide suitable nesting habitat in the construction area and within a minimum 300-foot buffer from construction activities. The survey buffer for bald eagle will extend a minimum of 0.5 mile around the construction area. The survey will occur within 1 week of the start of construction. With regard to California spotted owl surveys, the survey method will follow the U.S. Forest Service 1993 protocol for California spotted owl, which is intended to determine presence/absence,

occupancy, and nesting status. If no active nests are detected during these surveys, no additional measures are required.

If an active nest is found in the survey area, a no-disturbance buffer will be established around the site to avoid disturbance or destruction of the nest site until the end of the breeding season (September 30) or until after a qualified wildlife biologist determines that the young have fledged and moved out of the project area (this date varies by species). The extent of these buffers will be determined by the biologist in coordination with USFWS and CDFW and will depend on the level of noise or construction disturbance, line-of-sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers. Suitable buffer distances may vary between species. In the event a nest is found after the survey has been completed, the same conditions described above will apply until the nest is fledged or the biologist has cleared the area for work.

Mitigation Measure BIO-9: Conduct Preconstruction Survey for Mud Nests on the Bridge and Implement Protective Measures for Bridge-Nesting Birds

To address the possibility that the existing bridge could have been removed, the EIR discussed ways to avoid impacts on nesting swallows and other bridge-nesting migratory birds that are protected under the Migratory Bird Treaty Act and California Fish and Game Code, which included the following implementation measures:

- The County would have hired a qualified wildlife biologist to inspect the bridge during the swallows' non-breeding season (September 1 through February 28). If nests were found and were abandoned, they would have been removed. To avoid damaging active nests adjacent to new bridge construction, nests would have been removed before the breeding season begins (March 1).
- After nests would have been removed, the undersides of the bridge would have been covered with 0.5- to 0.75-inch mesh net by a qualified contractor. All net installation would have occurred before March 1 and would have been monitored by a qualified biologist throughout the breeding season (typically several times a week). The netting would have been anchored so that swallows and other birds could not attach their nests to the bridge through gaps in the net.
- As an alternative to netting the underside of a bridge, the County could have hired a qualified biologist to remove nests as the birds construct them and before any eggs are laid. Visits to the site would have needed to occur daily throughout the breeding season (March 1 through August 31) as swallows can complete a nest in a 24-hour period.
- If netting of the bridge would not have occurred by March 1 and swallows colonize the bridge, modifications to the structure would have begun before August 31 of that year or until a qualified biologist has determined that the young have fledged and all nest use is completed.

If appropriate steps are taken to prevent swallows and other birds from constructing new nests, work could have proceeded at any time of the year.

Mitigation Measure BIO-10: Identify Suitable Roosting Habitat for Bats and Implement Avoidance and Protective Measures

To avoid potential impacts on breeding and hibernating bats, tree removal or trimming should occur between September 16 and October 31. If tree removal/trimming cannot be conducted in selected areas identified as potential bat habitat, between September 16 and October 31, qualified biologists will examine trees to be removed or trimmed for suitable bat roosting habitat before removal/trimming. High-quality habitat features (large tree cavities, basal hollows, loose or peeling bark, larger snags, palm trees with intact thatch, etc.) will be identified and the area around these features searched for bats and bat sign (guano, culled insect parts, staining, etc.) Passive monitoring using bat detectors may be needed if identification of bat species is required. Survey methods should be discussed with CDFW prior to the start of surveys.

Measures to avoid and minimize impacts to sensitive bats species will be determined in coordination with CDFW and will include the following:

- Tree removal will be avoided between April 1 and September 15 (the maternity period) to avoid effects on pregnant females and active maternity roosts (whether colonial or solitary).
- All tree removal should be conducted between September 16 and October 31, which corresponds to a time period when bats have not yet entered torpor or would be caring for nonvolant young.
- Trees with high-quality roosting habitat will be removed in pieces rather than felling entire tree.
- If a maternity roost is located, whether solitary or colonial, that roost will remain undisturbed until September 16 or until a qualified biologist has determined the roost is no longer active, whichever occurs first.
- If avoidance of nonmaternity roost trees is not possible, and tree removal or trimming cannot occur between September 16 and October 31, qualified biologists will monitor tree trimming or removal that occurs before September 16 or after October 31. If possible, tree trimming and removal should occur in the late afternoon or evening when it is closer to the time that bats would normally arouse. Prior to removal or trimming, each tree will be shaken gently multiple times (at least three times) and several minutes (a minimum of 5 minutes) should pass between shakes before felling trees or limbs to allow bats time to arouse and leave the tree. The biologist should search downed vegetation for dead and injured bats. The biologist will prepare a biological monitoring report, which will be provided to the Project lead and CDFW. If dead or injured bats are encountered, the presence of such will be reported to CDFW, and site conditions and activities will be evaluated to ensure bats are protected. In coordination with CDFW and the project biologisy, proper precautions will be taken to mitigate or reduce further occurrences.

- The biologist will conduct a preconstruction survey of crack, crevice, and cavity habitat including boulder and bedrock outcrops, human-made structures (existing Mosquito bridge span, associated rock stack wall, cable anchors and abutment, other wood-framed structures, etc.) for suitable bat roosting habitat before rock blasting or removal. High-quality habitat features will be identified and the area around these features searched for bats and bat sign (guano, culled insect parts, urine staining, etc.). Passive monitoring using bat detectors may be needed if identification of bat species is required. Survey methods should be discussed with CDFW prior to the start of surveys.

If a roost is located, the biologist will determine the species, the level of occupancy (solitary or colonial), and the status of the roost (maternity or nonmaternity) if possible. If a maternity roost is located, whether solitary or colonial, that roost will remain undisturbed until September 16 or a qualified biologist has determined the roost is no longer active, whichever occurs first. If the roost is not a maternity roost, CDFW will be consulted to determine if the roost can be disturbed, and, if so, the approach to removing the habitat and compensatory mitigation for its loss. Implementation of the approach will be conducted by biologist in coordination with contractor, and construction activities to occur before, during, and/or after implementation will be monitored, documented, and reported to the Project lead and CDFW.

- The removal of oak woodland will be compensated as discussed in Mitigation Measure BIO-7. Any additional compensation for loss of tree-roosting habitat, if required by CDFW, will be developed in coordination with CDFW.

Mitigation Measure BIO-11: Compensate for Permanent Impacts on Willow Thicket Wetland

El Dorado County will compensate for the loss of approximately 0.06 acre of riparian willow thicket wetland identified in the Natural Environment Study (NES) for the EIR, either by purchasing mitigation bank credits, which can be in the form of preservation and/or creation credits, or by paying into the National Fish and Wildlife Foundation Sacramento District In-Lieu Fee program. The mitigation ratio will be a minimum of 2:1 (2 acres of mitigation for 1 acre of wetland filled) if credits are for preservation of wetland habitat, or 1:1 (1 acre of mitigation for 1 acre of wetland removed) if credits are for creation of wetland habitat. The final ratio will be as required under the Section 404 permit in order to result in no net loss of wetland habitat. If mitigation bank credits are used for mitigation, the County will purchase willow wetland credits from an approved mitigation bank that has a service area that covers the project site.

Mitigation Measure BIO-12: Avoid the Introduction and Spread of Invasive Plants

El Dorado County or its contractor will be responsible for avoiding the introduction of new invasive plants and the spread of invasive plants previously documented in the study area. Accordingly, the following measures will be implemented during construction:

- Educate construction supervisors and managers on weed identification and the importance of controlling and preventing the spread of invasive weeds.

- Dispose of invasive species material removed during Project construction off-site at an appropriate disposal facility to avoid the spread of invasive plants into natural areas.
- Minimize surface disturbance to the greatest extent feasible to complete the work.
- Use weed-free imported erosion-control materials (or rice straw in upland areas).
- Use locally grown native plant stock and native or naturalized (noninvasive) grass seed during revegetation.
- On BLM lands and in areas identified with a presence of invasive plants, the Contractor will be required to wash (clean) all equipment before entering the work area and leaving the identified work area. In these locations, routine visual inspections will also be conducted.
- The contractor will be required to prepare a noxious weed plan for submittal that details the surveying, preventing, controlling, and monitoring for noxious weed populations in areas identified to contain noxious weeds (invasive plants). This plan will also detail the use of specific prevention BMPs as detailed by the California Invasive Plant Council (<http://cal-ipc.org/ip/prevention/tuc.php>), and as applicable for the project site and operations.
- Post construction monitoring will be conducted for a period of 3 years it is identified during construction by qualified personnel that there is a threat of the spread of noxious weed based on disturbances to areas identified to contain noxious weed, and observations of non-conformance to project invasive weed BMPs or controls to prevent the spread.

GEOLOGY, SOILS, MINERALS, AND PALEONTOLOGICAL RESOURCES

Impact GEO-3: Location on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in an on-site or off-site landslide or subsidence (less than significant with mitigation)

Findings.

The County hereby makes Finding 1.

Facts in Support of Findings.

The following mitigation measure will mitigate the impact below the level of significance.

Mitigation Measure GEO-1: Design and Implement Slope Stabilization Measures.

Detailed, site-specific geotechnical report(s) will be prepared to identify the type of slope stabilization measures that should be constructed at those existing failures and areas otherwise subject to instability that could be affected by Project construction and operation. Such measures may include but are not limited to installation of slope drains, buttressing of cuts and fills, proper design of roadways, construction of soil nail walls, monitoring of groundwater levels, driving piles below loose soil into competent material, and construction of retaining walls. The recommendations contained in the reports will be reflected in the Project construction plans and specifications.

HAZARDS AND HAZARDOUS MATERIALS

Impact HAZ-8: Exposure of 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 (less than significant with mitigation)

Findings.

The County hereby makes Finding 1.

Facts in Support of Findings.

The following mitigation measure will mitigate the impact below the level of significance

Mitigation Measure HAZ-1: Implement a fire protection plan

The County will require its contractors to coordinate with CAL FIRE to prepare a Fire Protection Plan. CAL FIRE will review, revise if necessary, and approve the plan before construction begins in areas with moderate to high fire hazards. The Fire Protection Plan will include the following measures:

- Internal combustion engines, stationary and mobile, will be equipped with spark arresters. Spark arresters shall be in good working order.
- Contractor will keep all construction sites and staging areas free of grass, brush, and other flammable materials.
- Personnel will be trained in the practices of the fire safety plan relevant to their duties. Construction and maintenance personnel shall be trained and equipped to extinguish small fires.
- Work crews shall have fire-extinguishing equipment on hand, as well as emergency numbers and cell phone or other means of contacting the Fire Department.
- Necessary controls required to be in place when fire risk activities are being performed. Controls may include availability of fire extinguishers, proximity to grass and dry debris, etc.
- Smoking will be prohibited while operating equipment and shall be limited to paved or graveled areas or areas cleared of all vegetation. Smoking will be prohibited within 30 feet of any combustible material storage area (including fuels, gases, and solvents). Smoking will be prohibited in any location during a Red Flag Warning issued by the National Weather Service for the project area.
- Emergency access routes will be properly planned and communicated to all personnel. Boulders will not be placed or stored such that landowner access is blocked.

NOISE AND VIBRATION

Impact NOI-4: Potential to result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project (less than significant with mitigation)

Findings.

The County hereby makes Finding 1.

Facts in Support of Findings.

The following mitigation measure will mitigate the impact below the level of significance

Mitigation Measure NOI-1: The construction contractor shall employ noise-reducing construction practices to reduce construction noise.

The Project applicant will require the construction contractor to employ noise-reducing construction practices to limit construction noise during non-exempt hours (hours before 7 a.m. and after 7 p.m. Monday through Friday, and before 8 a.m. and after 5 p.m. on weekends and federally recognized holidays) to the sound level limits for residential uses shown in Table 3.10-7 [see page 3.10-8 of the Draft EIR]. Measures that can be used to limit noise include, but are not limited to, those listed below.

- Locating equipment as far as feasible from noise-sensitive uses.
- Requiring that all construction equipment powered by gasoline or diesel engines have sound-control devices whenever possible that are at least as effective as those originally provided by the manufacturer and that all equipment be operated and maintained to minimize noise generation. This requirement is in effect for all hours of operation.
- Not idling inactive construction equipment for prolonged periods (i.e., more than 2 minutes). This requirement is in effect for all hours of operation.
- Prohibiting gasoline or diesel engines from having unmuffled exhaust. This requirement is in effect for all hours of operation.
- Using noise-reducing enclosures around noise-generating equipment, including shrouds mounted on pile driving equipment.
- Constructing temporary barriers between noise sources and noise-sensitive land uses or taking advantage of existing barrier features (terrain, structures) to block sound transmission.

5.0 FINDINGS REGARDING ALTERNATIVES

CEQA requires that an EIR consider a reasonable range of alternatives to the proposed project. Alternatives must generally achieve the project objectives, and alternatives that avoid or reduce significant impacts of the project should be considered. Based on impacts identified in the EIR, and other reasons documented below, the County finds that adoption and implementation of the proposed Project is the most desirable, feasible, and appropriate action and rejects other alternatives as either less desirable or infeasible based on consideration of the relevant factors identified herein.

As documented in Sections 2.0, 3.0, and 4.0 of these Findings, the County finds that the Project with implementation of mitigation measures in the MMRP would not result in any significant and unavoidable impacts Project-specific impacts. As documented in Section 6.0 of these Findings, the County finds that the Project would not result in cumulative considerable (i.e., significant) impacts when considered in combination with impacts of other past, present, or reasonably foreseeable projects. In fact, given the site constraints of the canyon, the only reasonably foreseeable project in the area of the Proposed Project is the emergency repair project of the existing sinkhole on Mosquito Road near the existing Mosquito Bridge. With construction of the Proposed Project, such emergency repair projects should reduce. Thus, the consideration of alternatives that would reduce or avoid significant environmental effects of the Project is not relevant in this instance.

No Project Alternative

CEQA requires that the “no project” alternative be evaluated in an EIR. The No-Project Alternative is a scenario in which the County would not proceed with the bridge replacement. The County finds that the No-Project Alternative does not attain the Project objectives. The County also finds, based on the analysis presented in the EIR, that certain environmental benefits would not be realized under the No-Project Alternative, including:

- Reduced risk of people and structures being exposed to fire; and
- Because no improvements would be made to the bridge or roadway approaches, the route would remain substandard and structurally deficient. Annual maintenance requirements would continue resulting in up to 1 month of road closures each summer. Access for larger vehicles, including emergency response vehicles and delivery trucks would remain restricted and emergency response times to Mosquito and Swansboro would not be improved. Compared to the proposed Project, traffic conditions would be worse thus accident rates, including deaths, would likely increase.

Mid-Level Alternative

The Mid-level Alternative proposes to raise the bridge profile to approximately 250 feet over the river. This proposed mid-level bridge is not as direct an alignment across the river as the proposed Project and results in a longer bridge due to its skewed alignment that results in a bridge length of approximately 1,200 feet. It is anticipated that the structure would be a multi-span, cast-in-place pre-stressed concrete box girder, concrete arch, or network arch type bridge.

Under the Mid-Level Alternative, bridge maintenance costs would remain an issue as the road and bridge alignment proposed by this alternative lies within the slide-riddled canyon on the north and could experience blocking debris and damage due to slides. Such events could render the road impassible and the risk of long-term closures exists. This would perpetuate emergency opening exercises and repairs totaling in the many millions of dollars.

Because of the instability of the canyon, there is the possibility of a rock slide large enough to wipe out the bridge, which would require a replacement similar to the proposed Project. The Mid-level Alternative would only eliminate the four hairpins on the Mosquito/Swansboro side of the canyon, but maintains the one hairpin on the Placerville side. The one remaining hairpin is less restricting to vehicles than those eliminated.

The County finds, based on the analysis presented in the EIR, that overall, the Mid-Level Alternative would be similar to the proposed Project, but with slighter greater magnitude to include the following:

- The duration of construction activities under the Mid-level Alternative would be approximately seven (7) months greater which could increase the risk of accidental spills and human-caused fire hazards during construction. A construction detour would be in place longer than the proposed Project.
- The types of air quality impacts under the Mid-level Alternative would be similar to those under the proposed Project, but of a greater magnitude due to extensive abutment retaining wall and possible slide confinement retaining wall construction on the Swansboro side as well as a four-month detour. The Mid-level Alternative could require more construction activity due to its longer construction duration compared to the proposed Project and the need for improvements on Rock Creek Road to accommodate the additional traffic usage during the detour period.
- Additional construction activity would be needed if a retaining wall is deemed necessary on the north slope to confine the large slide complex that could be activated from roadway approach excavation or if deemed necessary to protect against slide impacts on the new roadway and bridge. This would result in higher short-term criteria pollutant emission levels than the proposed Project. Given the level of additional construction activity and overall longer construction duration, activity could exceed the EDCAQMD's mass emission and/or fuel thresholds. Similar to the proposed Project, the Mid-level Alternative would be required to comply with Caltrans Standard Specifications 14-9 to control fugitive dust.
- The types of hydrology and water quality impacts under the Mid-level Alternative would be similar to those under the proposed Project, but of a slightly greater magnitude. The Mid-level Alternative would require more construction activity, relative to the proposed Project, which would result in the greater potential for temporary increases in sediment loads and pollutants to the South Fork American River and degradation of water quality. The temporary construction disturbance area for the Mid-level Alternative is greater than the proposed Project and therefore a greater potential for the use of chemicals or pollutants associated with construction activities or erosion or siltation may occur at the site. The increased disturbance area may also result in temporary changes in flow rates and drainage patterns, flooding onsite or offsite, contribute runoff water that could exceed the capacity of existing or planned stormwater drainage systems, or provide substantial additional sources of polluted runoff. The Mid-level Alternative has small temporary and permanent construction disturbance areas within the 100-year flood-hazard area. Construction BMPs and federal, state, and local regulations would apply to this alternative addressing hydrological and water quality impacts. Nonetheless, the potential for impacts would remain greater for the Mid-level Alternative compared to the proposed Project.

Low-Level Alternative

The Low-level Alternative proposes to raise the bridge profile to approximately 90 feet over the river, which is approximately 25 to 30 feet higher than existing. To adhere to current alignment

design standards, and to better accommodate vehicular passage over the bridge, this low-level bridge would be on a very high skew across the South Fork American River, and would result in a bridge length of approximately 700 feet. Some falsework and the temporary platforms would still be required for this alternative, along with a temporary traffic detour bridge to maintain traffic on Mosquito Road during construction. Both the low-level bridge and the temporary detour bridge would require bridge support construction in the river floodplain.

Construction of a temporary bridge would be necessary because the existing bridge would be inaccessible during construction of the new bridge. This temporary bridge would require piers in the floodplain and would be in use for 2 to 3 years. The existing bridge must be removed to allow construction of this low-level bridge. The existing bridge would be removed once traffic is shifted onto the temporary detour bridge.

The County finds that, overall, the Low-Level Alternative would have greater environmental impacts than the Proposed Project (as discussed in Section 4.3.3). The environmental impacts associated with the Low-level Alternative include the following:

- The duration of construction activities under the Mid-level Alternative would be approximately seven (7) months greater which could increase the risk of accidental spills and human-caused fire hazards during construction. A construction detour would be in place longer than the proposed Project.
- The duration of construction activities under the Low-level Alternative would be approximately seven (7) months greater which could increase the risk of accidental spills and human-caused fire hazards during construction. A construction detour would be in place longer than the proposed Project.
- The Low-level Alternative has substantial improvement features performed in environmentally sensitive areas (including within the high water mark). The bridge foundations are located within the 100-year flood hazard area and consequently the construction improvement features would require disturbances and placement of fills within the waterway of the South Fork of the American River. This condition also results in a greater potential to adversely impact hydrology, water quality, and drainage patterns than the proposed project.

6.0 FINDINGS REGARDING CUMULATIVE IMPACTS

CEQA requires an EIR to include examination of a project's cumulative impacts. As discussed in CEQA Guidelines Section 15130(a)(1), a cumulative impact "consists of an impact that is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts." As documented in the analysis presented in Section 5.2 of the Draft EIR, the County finds that none of the Project-specific impacts identified in the EIR would result in a substantial contribution to cumulative impacts.

7.0 FINDINGS REGARDING GROWTH INDUCEMENT

Section 15126(d) of the CEQA Guidelines requires that an EIR discuss the ways in which a project could foster economic or population growth in the surrounding environment.

Based on the analysis in Section 5.3 of the Draft EIR and as summarized below, the County finds that proposed Project would not induce growth.

Because Mosquito Road is an existing roadway connecting the Placerville area with the Mosquito/Swansboro area, the Project would not provide access to undeveloped areas. Rather, it would involve replacing and realigning a nonstandard roadway and bridge structure. Therefore, accessibility to employment, shopping, or other destinations is not expected to change.

Due to the operational traffic efficiency benefits that would result from Project implementation, the Project would reduce commute and trip times for those traveling between the Placerville area and the Swansboro/Mosquito area, which could contribute to changed preferences in the employment and residential location decisions of individuals. The reduced travel times, however, would not be substantial and are unlikely to have an overall effect on employment and residential location decisions such that growth would occur.

Project-related growth is not reasonably foreseeable. Although the proposed Project would likely reduce the amount of maintenance-related closures, remove existing operational traffic and roadway deficiencies, accommodate additional truck traffic, and increase emergency response times relative to existing conditions, the Project would neither connect to undeveloped areas nor would it affect the underlying zoning in the area. The only land use change would be the incorporation of right-of-way for the bridge structure and abutments. The Project would increase the operational efficiency of Mosquito Road near the South Fork American River by realigning the roadway to avoid existing deficiencies and would therefore be responsible for increased travel speeds and decreased trip times. Such reductions in travel time, however, would be marginal and it would be remote and speculative to assume that growth would occur as a result of the increased efficiency of a relatively short segment of roadway.

ATTACHMENT A
MITIGATION MONITORING AND REPORTING PLAN

**MITIGATION MONITORING AND
REPORTING PLAN
FOR THE
MOSQUITO ROAD BRIDGE REPLACEMENT
PROJECT
(No. 25C0061)
(SCH # 2015062076)**

CEQA LEAD AGENCY:

El Dorado County

PREPARED:

June 2017

ADOPTED BY BOARD OF SUPERVISORS ON:

Introduction

Purpose

The El Dorado County Community Development Services, Department of Transportation (County) proposes to replace the existing Mosquito Road Bridge (No. 25C0061) within the canyon of the South Fork American River (Project). The bridge is in the west-central portion of El Dorado County and within a rugged rural area of the Sierra Nevada foothills. The proposed Project site is along Mosquito Road in unincorporated El Dorado County northeast of Placerville. The existing Mosquito Road Bridge is roughly 6 miles north of U.S. Highway 50 and 2.3 miles south of the communities of Mosquito and Swansboro. The County has evaluated multiple replacement options for the existing bridge and has determined that the proposed project is the most viable approach for correcting the structural and operational deficiencies of the bridge and approaches.

As described in the Environmental Impact Report (EIR), the Project itself incorporates a number of measures to minimize adverse effects on the environment. The EIR 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, 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 an EIR. 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 potentially significant impacts and mitigation measures identified and described in the Project EIR. Potential impacts that have been determined “less than significant” or “no impact,” that require no mitigation, are not included in this MMRP.

Each of the impacts discussed within this MMRP is numbered based on the sequence in which they are discussed in the EIR. A brief summary of each impact with the corresponding specific mitigation measures is 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 the County; during construction, the delegated responsibility is shared by the County’s contractors. Each mitigation measure in this plan contains a “Verified By” signature line, which will be signed by the County

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

Impact BIO-1: 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 CDFW or USFWS (less than significant with mitigation).

Summary: Potential impacts to:

Foothill yellow legged frog – see following mitigation measures set forth below: MM BIO-1, MM BIO-2, MM BIO 3 and MM BIO 4;

Blainville’s horned lizard - see following mitigation measures set forth below: MM BIO-1, MM BIO-2, MM BIO 3 and MM BIO 5;

Nesting bald eagles - see following mitigation measures set forth below: MM BIO-1, MM BIO-2, MM BIO-3, MM BIO-6, MM BIO-7, and MM BIO-8

Nesting California spotted owls - see following mitigation measures set forth below: MM BIO-1, MM BIO-2, MM BIO-3, MM BIO-6, MM BIO-7, and MM BIO-8

Willow flycatcher foraging habitat - see following mitigation measures set forth below: MM BIO-1, MM BIO-2, MM BIO-3 and MM BIO-4, and MM BIO-6

Nesting migratory birds - see following mitigation measures set forth below: MM BIO-1, MM BIO-2, MM BIO-3, MM BIO-6 and MM BIO-7 MM BIO-8, and MM BIO-9

Special status bats and their habitat - see following mitigation measures set forth below: MM BIO-1, MM BIO-2, MM BIO-3, MM BIO-6, MM BIO-7 and MM BIO-10

Impact BIO-2: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS (less than significant with mitigation)

Table 3.3-3 summarizes the impacts on sensitive land cover types in the study area.

Table 3.3-3. Impacts on Sensitive Land Cover Types in the Study Area

	Interior Live Oak Woodland (acres)	Willow Thicket Wetland (acres)	Intermittent Stream (acres)	Perennial Stream (acres)
Permanent Impacts	6.67	0.06	0	0
Temporary Impacts	7.62	0	0	0
<i>Total Impacts</i>	<i>14.29 acres</i>	<i>0.06 acre</i>	<i>0. acre</i>	<i>0 acre</i>

Impact BIO-3: Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the CWA (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.), through direct removal, filling, hydrological interruption, or other means (less than significant with mitigation)

Summary: The proposed Project would avoid temporary and permanent impacts, but could result in indirect impacts, on the intermittent stream. The clear-span design of either the minor bridge or the large arch culvert for the bridge approach road would avoid placement of fill within the OHWM of the stream. The construction access/maintenance road on the Placerville side of the river would use an existing dirt road alignment that was built upslope of the beginning of the stream. Therefore, no permanent fill would be placed in the stream.

Temporary impacts on the intermittent stream could occur during construction of the bridge and use of the proposed staging area on the Placerville side of the river. However, the ravine in which the intermittent stream is located will be avoided during construction.

Impact BIO-7: Potential for construction activities to introduce or spread invasive plant species (less than significant with mitigation)

Summary: The proposed Project has the potential to create additional disturbed areas for a temporary period and to introduce and spread invasive plant species to uninfected areas within and adjacent to the study area. This would be of particular concern for natural communities of special concern, where nonnative invasive plants could outcompete and replace native vegetation.

Mitigation Measure BIO-1: Install Construction Barrier Fencing around the Construction Area to Protect Sensitive Biological Resources to Be Avoided

El Dorado County's contractor will install orange construction barrier fencing between the construction area and adjacent sensitive biological resource areas as one of the first orders of work. Sensitive biological resources that occur adjacent to the construction area include sensitive natural communities and habitats for special-status wildlife such as foothill yellow-legged frog, Blainville's horned lizard, bald eagle, California spotted owl, willow flycatcher, other migratory birds, and roosting bats.

Before construction begins, the construction contractor will work with the Project engineer and a resource specialist to identify the locations for the orange construction fencing, and will place stakes to indicate these locations. The fencing will be installed before construction activities are initiated, maintained throughout the construction period, and removed when construction is completed. The protected areas will be designated as environmentally sensitive areas and clearly identified on the construction plans. To minimize the potential for snakes and other ground-dwelling animals being caught in the orange construction fencing, the fencing will be placed with at least a 1-foot gap between the ground and the bottom of the fencing. The exception to this condition is where construction barrier fencing overlaps with erosion control fencing and must be secured to prevent sediment runoff.

Implementation: The County will install orange construction barrier fencing, as described above, to identify environmentally sensitive areas as one of the first orders of work.

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

Timing: Pre-Construction, Construction, and Post-Construction Phases

Verified By: _____ Date: _____
County Project Manager

Mitigation Measure BIO-2: Conduct Environmental Awareness Training for Construction and Mitigation Planting Area Personnel

El Dorado County will retain a qualified biologist to develop and conduct environmental awareness training for construction employees and personnel who will prepare the site and/or maintain the mitigation planting area on the importance of on-site biological resources, including sensitive natural communities; mature trees to be retained; special-status wildlife habitats; potential nests of special-status birds, and other migratory bird species including swallows; and roosting habitat for special-status bats, as applicable. In addition, construction employees will be educated about the importance of controlling and preventing the spread of invasive plant infestations.

The environmental awareness program will be provided to all construction and mitigation planting area personnel to brief them on the life history of special-status species in or adjacent to the Project area, the need to avoid impacts on sensitive biological resources, any terms and conditions required by state and federal agencies, and the penalties for not complying with biological mitigation requirements. If new construction or mitigation area personnel are added to the Project, the contractor’s superintendent or El Dorado County will ensure that the personnel receive the mandatory training before starting work. An environmental awareness handout that describes and illustrates sensitive resources to be avoided during Project construction and work/maintenance at the mitigation area, and identifies all relevant permit conditions, will be provided to each person.

Implementation: The County will hire a qualified biologist to develop and conduct environmental awareness training for construction employees, 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 Phase

Verified By: _____ Date: _____
County Project Manager

Mitigation Measure BIO-3: Retain a Qualified Biologist to Conduct Periodic Monitoring during Construction

El Dorado County will retain a qualified biologist to conduct periodic construction monitoring in and adjacent to all sensitive habitats (i.e., interior live oak woodland, willow thickets, streams, and yellow star thistle or invasive weed as needed) in the construction area. The frequency of monitoring will range from daily to weekly depending on the biological resource. The monitor, as part of the overall monitoring duties, will inspect the fencing once a week to ensure that fencing around environmentally sensitive areas is intact. The biological monitor will assist the construction crew as needed to comply with all Project implementation restrictions and guidelines. The biological monitor also will be responsible for ensuring that the contractor maintains the staked and flagged perimeters of the construction area and staging areas adjacent to sensitive biological resources. The monitor will provide El Dorado County with a monitoring log for each site visit, which will be provided to interested agencies upon request.

Certain activities will require a biological monitor to be present for the duration of the activity or during the initial disturbance of an area to ensure that impacts on special-status species are avoided. The activities that require specific monitoring are identified below and include but are not limited to Mitigation Measures BIO-9, BIO-10, BIO-11, and BIO-12.

Implementation:	The County will hire a qualified biologist to conduct construction monitoring in and adjacent to all sensitive habitats, inspect fencing, assist the construction crew, and document monitoring activities, as described above.
Effectiveness Criteria:	The County will prepare and keep on file documentation verifying the implementation of the above-referenced measures.
Timing:	Construction Phase
Verified By:	_____ Date: _____ County Project Manager

Mitigation Measure BIO-4: Protect Water Quality and Prevent Erosion and Sedimentation in Wetlands and Drainages

El Dorado County will ensure the construction specifications include the following water quality protection and erosion and sediment control BMPs, based on standard County/Caltrans requirements, to minimize construction-related contaminants and mobilization of sediment in wetlands and streams, including South Fork American River, in and adjacent to the study area.

The BMPs will be selected to achieve maximum sediment removal and represent the best available technology that is economically achievable and are subject to review and approval by the County. The County will perform routine inspections of the construction area to verify the BMPs are properly implemented and maintained. The County will notify contractors immediately if there is a noncompliance issue and will require compliance.

The BMPs will include, but are not limited to, the following:

- Ensure that equipment used in and around streams is in good working order and free of dripping or leaking engine fluids. All vehicle maintenance will be performed at least 300 feet

from all streams. Any necessary equipment washing will be carried out where the water cannot flow into streams.

- Prepare and implement a hazardous material spill prevention, control, and countermeasure plan before construction begins that will minimize the potential for, and the effects of, spills of hazardous or toxic substances during construction. The plan will include storage and containment procedures to prevent and respond to spills and will identify the parties responsible for monitoring the spill response. The plan will include the following:
 - Prevent raw cement, concrete or concrete washings, asphalt, paint or other coating material, oil or other petroleum products, or any other substances that could be hazardous to aquatic life from contaminating the soil or entering watercourses.
 - Clean up all spills immediately according to the spill prevention, control, and countermeasure plan.
 - Avoid operation of vehicles and equipment in flowing water.
 - Provide areas located outside all stream OHWMs for staging and storing equipment, materials, fuels, lubricants, solvents, and other possible contaminants.
 - Ensure that areas where equipment is refueled or lubricated are storm-proofed to prevent contaminants from being discharged to the streams. Pump contaminated water to a holding tank for proper disposal.
- El Dorado County will review and approve the contractor's hazardous materials spill prevention, control, and countermeasure plan before allowing construction to begin.
- Prohibit the following types of materials from being rinsed or washed into the roads, shoulder areas, or gutters: concrete; solvents and adhesives; thinners; paints; fuels; sawdust; dirt; gasoline; asphalt and concrete saw slurry; and heavily chlorinated water.
- Dispose of any surplus concrete rubble, asphalt, or other rubble from construction at a local landfill.
- Prepare and implement an erosion and sediment control plan for the proposed Project. The plan will include the following provisions and protocols.
 - Runoff from disturbed areas will be made to conform to the water quality requirements of the waste discharge permit issued by the RWQCB.
 - Temporary erosion control measures, such as sandbagged silt fences, will be applied throughout construction of the proposed Project and will be removed after the working area is stabilized or as directed by the engineer. Soil exposure will be minimized through use of temporary BMPs, groundcover, and stabilization measures. Exposed dust-producing surfaces will be sprinkled daily, if necessary, until wet; this measure will be controlled to avoid producing runoff. Paved roads will be swept daily following construction activities.
 - The contractor will conduct periodic maintenance of erosion and sediment control measures.
 - An appropriate seed mix of native species will be planted on disturbed areas upon completion of construction.
 - Cover or apply nontoxic soil stabilizers to inactive construction areas (previously graded areas inactive for 10 days or more) that could contribute sediment to waterways.

- Enclose and cover exposed stockpiles of dirt or other loose, granular construction materials that could contribute sediment to waterways. Material stockpiles will be located in non-traffic areas only. Side slopes will not be steeper than 2:1. All stockpile areas will be surrounded by a filter fabric fence and interceptor dike.
- Contain soil and filter runoff from disturbed areas by berms, vegetated filters, silt fencing, straw wattle, plastic sheeting, catch basins, or other means necessary to prevent the escape of sediment from the disturbed area.
- Use other temporary erosion control measures (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) to control erosion from disturbed areas as necessary.
- Avoid earth or organic material from being deposited or placed where it may be directly carried into streams.
- Minimize the extent of all areas requiring clearing, grading, revegetation, and recontouring.
- Grade areas following construction to minimize surface erosion.
- Cover bare areas with mulch and revegetate all cleared areas.

El Dorado County also will obtain a CWA Section 404 permit from USACE and a Section 401 Water Quality Certification from the Central Valley RWQCB, which may contain additional BMPs and measures to ensure the protection of water quality.

Implementation: The Contractor will ensure the construction specifications include the water quality protection and erosion and sediment control best management practices described above and will ensure they are implemented during and immediately after construction.

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

Timing: Pre-Construction, Construction, and Post-Construction Phases

Verified By: _____ Date: _____
County Project Manager

Mitigation Measure BIO-5: Conduct Preconstruction Surveys for Blainville’s Horned Lizard and Monitor Initial Ground Disturbance Work in Staging Areas

To avoid and minimize potential injury or mortality of Blainville’s horned lizard, El Dorado County will retain a qualified wildlife biologist to conduct a preconstruction survey of suitable habitat within 24 hours of the start of construction activities. The biologist will survey the areas designated for staging activities (yellow star-thistle field, annual grassland, and Kentucky blue grass turf) for Blainville’s horned lizard. If a Blainville’s horned lizard is observed within the construction/staging area during the preconstruction survey, a biologist will be present during all vegetation clearing and grading to prepare the site. The biologist will monitor initial ground disturbing activities and if a horned lizard is observed, the animal will be allowed to leave to construction area on its own.

For the remainder of construction, the biologist will remain on call in case a Blainville’s horned lizard is discovered. The construction crew will be instructed to notify the crew supervisor who

will contact the biologist if this species is found dead or trapped within the construction area. Work in the area where the lizard is found dead or trapped will stop until the biologist arrives and determines the appropriate course of action. If a horned lizard becomes trapped in the construction area and cannot leave on its own, CDFW will be contacted to obtain authorization or a permit to capture and relocate the horned lizard out of the construction area. The discovery of any dead Blainville's horned lizard will be reported to the County immediately and the County will notify CDFW within 24 hours of the discovery. If the County can determine that construction activities caused the death of the horned lizard, the County will take efforts to prevent a subsequent death of another horned lizard.

Implementation: Implement protective measure to avoid or reduce potential impacts on Blainville's horned lizard in the Project construction area.
 The County will prepare and keep on file documentation verifying the implementation of the above-referenced measures.

Effectiveness Criteria: The County shall verify incorporation of the above-referenced measures in permit documentation and plans and will ensure preconstruction surveys are conducted through file documentation prior to issuance of grading or building permits.

Timing: Pre-Construction, Construction, and Post-Construction Phases

Verified By: _____ Date: _____
 County Project Manager

Mitigation Measure BIO-6: Avoid and Minimize Potential Disturbance of Woody Vegetation

The potential for long-term loss of woody vegetation will be minimized by trimming vegetation rather than removing entire trees or shrubs in areas where complete removal is not required. However, complete removal of shrubs (grubbing) may be necessary in parts of the temporarily affected staging areas. Trees or shrubs that only need to be trimmed will be cut at least 1 foot above ground level to leave the root systems intact and allow for more rapid regeneration. Cutting will be limited to the minimum area necessary within the construction zone. To protect nesting birds, Caltrans will not allow pruning or removal of woody vegetation between February 1 and September 30 without preconstruction surveys. A certified arborist will be retained to perform any necessary pruning or root cutting of retained trees.

Implementation: Implement protective measure to avoid or reduce potential disturbance of woody vegetation.
 The County will prepare and keep on file documentation verifying the implementation of the above-referenced measures.

Effectiveness Criteria: The County shall verify incorporation of the above-referenced measures in permit documentation and plans and will ensure preconstruction surveys are conducted through file documentation prior to issuance of grading or building permits.

Timing: Pre-Construction, Construction, and Post-Construction Phases

Verified By: _____ Date: _____
 County Project Manager

Mitigation Measure BIO-7: Compensate for Temporary and Permanent Impacts on Interior Live Oak Woodland

The project will avoid impacts to interior live oak woodland to the maximum extent feasible including but not limited to adjusting construction paths to avoid oak trees and considering the density of oak trees in locating staging and other areas. In areas where temporary or permanent impacts will occur in interior live oak woodland, mitigation will be implemented through the most current El Dorado County Oak Resources Management Plan (ORMP) or Policy 7.4.4.4 if applicable at the time of Project construction by applying a combination of the options listed below to ensure that all impacts are collectively mitigated to a less than significant level. Construction activities and improvement features will avoid oak tree removals and oak woodland disturbances wherever possible to minimize impacts. Additionally, existing oak woodland habitat canopy characteristics will be considered in an effort to minimize impacts to oak woodland habitat as it pertains to post-construction canopy conditions. Onsite replanting of oak woodland vegetation will be done to the maximum extent practicable to mitigate for no more than half of the impacts, however due to physical constraints of the project area, and in efforts to minimize the acquisition of new right-of-way, there is little available suitable space for planting trees onsite to compensate for the temporary and permanent impacts to interior live oak woodland. Alternatively, onsite planting will be supplemented with offsite planting and/or the purchase of mitigation credits. The proximity to the project will be considered when selecting locations.

The final impact areas will be confirmed by a qualified biologist or arborist based on actual project disturbances and in cooperation with California Department of Fish and Wildlife (CDFW). The specific mitigation measure to include mitigation quantities and costs will be determined based on construction impacts associated with the actual project constructed and will ensure that mitigation collectively results in impacts that are less than significant.

The mitigation measures will include a combination of one or more of the options below:

- 1. In-Lieu Fee Fund.** Based on the costs of acquisition of land and conservation easements, management, monitoring, and administrative costs, the County will pay into an in-lieu fee fund for replacement of oak woodlands. Replacement will be according to the current ORMP requirements adopted by the County at the time of construction. Currently, the Project would mitigate at a 2:1 ratio (2 acres purchased for every 1 acre impacted) unless Option A of Policy 7.4.4.4 is satisfied, in which case mitigation would be at a 1:1 ratio under that option. The Board is currently considering a new ORMP that would require mitigation at a ratio of a minimum of 2:1 per acre for 75.1 – 100% oak woodland impact level; 1:1 per acre in the event that the percent of oak woodland impact can be minimized to 0 to 50%; or 1.5:1 for impacts at 50 to 75.1%. The standards in the County ORMPs are designed to mitigate impacts to less than significant and the Oak Woodland Management Plan for this Project will ensure that the ratios in the controlling ORMP are sufficient to mitigate the Project's impacts to less than significant.
- 2. Onsite and/or Offsite Replacement.** If this option is implemented, onsite replacement will not fulfill more than one-half of the mitigation for oak woodlands. As discussed under the prior option, the oak woodland replacement ratio for temporary and permanent impacts will be at a ratio of 2:1, 1.5:1, or 1:1, depending on actual impacts and the requirements of the current ORMP at the time of construction. If substitution of per acre formula is warranted with a per tree planting formula, a minimum of 2:1 tree planting formula (2 oak

trees planted for every 1 removed) will be applied. The final required quantities and methods will be based on actual project disturbances and will be coordinated with a qualified biologist and/or arborist and with CDFW for impacts within their jurisdiction. The location of the oak woodland planting site will be determined prior to Project permitting and proximity to the Project will be achieved to the extent feasible. Temporarily disturbed areas will be replanted after construction. However, due to the limited area, right-of-way constraints, and steep topography available for onsite planting trees, the oak woodland compensation will likely require a supplementary off-site planting location. The County will prepare a Project Oak Woodland Management Plan when the final woodland disturbance area and replacement planting locations have been determined. Details of the number and species of trees and other applicable understory shrubs to be planted, based on the replacement ratio, as well as the specific planting locations, maintenance and irrigation needs, and annual monitoring requirements will be included in the Oak Woodland Management Plan. The success criterion will be a minimum of 80 percent survival of all plantings in 3 years after planting, with annual survival goals to be met prior to the final monitoring. This survival criterion requires a higher relative rate of success for the 3 year monitoring period, and the monitoring duration is consistent with the project's funding requirements for the maximum 3 year post-construction monitoring period. If planting survival does not meet the criterion in any year, the potential reasons for failure will be analyzed and addressed in remedial measures, and additional plantings will be installed and monitored for the full 3 years. Monitoring, remedial measures, and replanting will continue until the final success criterion is met. After expiration of the initial 3 years, the County will, likely at its own cost, maintain the planted trees for an additional four years pursuant to the Public Resources Code.

3. **Mitigation Credits.** This compensatory option may be used to ensure that the ecological losses are offset, do not result in a net loss of oak woodland habitat, and reduce the impact to interior live oak woodlands to less than significant. Credits will be purchased from a mitigation bank, or resource area, that has been restored, established, enhanced, or in some circumstances, preserved for the purpose of providing compensation for the unavoidable impacts permitted under the regulatory framework. As discussed under the first option, the oak woodland replacement ratio for temporary and permanent impacts will be at a ratio of 2:1, 1.5:1, or 1:1, depending on actual impacts and the requirements of the current ORMP at the time of construction. The number of credits purchased will be determined in coordination with CDFW for impacts within their jurisdiction, with a qualified biologist and/or arborist and will be based on actual project disturbances.

Implementation: The County will hire a certified arborist to prune, trim, and cut vegetation and roots, as described above. The County will conduct inspections, as described above, and replant areas, if necessary, and/or purchase mitigation credits and/or in lieu fees under the ratios in the most current ORMP to ensure that the impact is less than significant.

Effectiveness Criteria: The County will prepare an Oak Woodland Management Plan for this Project and keep on file documentation verifying the implementation of the above-referenced measures.

Timing: Pre-Construction, Construction, and Post-Construction Phases

Verified By: _____ Date: _____
County Project Manager

Mitigation Measure BIO-8: Remove Vegetation during the Nonbreeding Season and Conduct Preconstruction Surveys for Nesting Migratory Birds

- To the maximum extent feasible, tree removal will occur during the non-breeding season for most migratory birds (generally between October 1 and January 31). This is highly preferred because if an active nest is found in a tree (or other vegetation) to be removed during preconstruction nest surveys (described below), the tree cannot be removed until the end of the nesting season, which could delay construction. If trees cannot be removed between October 1 and January 31, the area where vegetation will be removed must be surveyed for nesting birds, as discussed below.
- If construction activities are expected to begin during the nesting season for migratory birds and raptors (generally February 1 through September 30), El Dorado County will retain a qualified wildlife biologist with knowledge of the relevant species to conduct nesting surveys before the start of construction. A survey will be conducted for migratory birds, including raptors. The survey will include a search of all trees and shrubs that provide suitable nesting habitat in the construction area and within a minimum 300-foot buffer from construction activities. The survey buffer for bald eagle will extend a minimum of 0.5 mile around the construction area. The survey will occur within 1 week of the start of construction. With regard to California spotted owl surveys, the survey method will follow the U.S. Forest Service 1993 protocol for California spotted owl, which is intended to determine presence/absence, occupancy, and nesting status. If no active nests are detected during these surveys, no additional measures are required.
- If an active nest is found in the survey area, a no-disturbance buffer will be established around the site to avoid disturbance or destruction of the nest site until the end of the breeding season (September 30) or until after a qualified wildlife biologist determines that the young have fledged and moved out of the project area (this date varies by species). The extent of these buffers will be determined by the biologist in coordination with USFWS and CDFW and will depend on the level of noise or construction disturbance, line-of-sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers. Suitable buffer distances may vary between species.

Implementation: The County will retain a qualified wildlife biologist with knowledge of the relevant species to conduct nesting surveys before the start of construction, and implement appropriate timing and buffer area avoidance measures to protect migratory birds, 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

Mitigation Measure BIO-9: Conduct Preconstruction Survey for Mud Nests on the Bridge and Implement Protective Measures for Bridge-Nesting Birds

- Mitigation Measure BIO-9 was proposed to address the possibility of removal of the existing bridge at the time of the Draft EIR. The Board has independently decided to maintain the bridge. If for some unforeseen reason the existing bridge is removed as part of this project, BIO-9 will be implemented. To avoid impacts on nesting swallows and other bridge-nesting migratory birds that are protected under the Migratory Bird Treaty Act and California Fish and Game Code, the County will implement the following measures:
 - The County will hire a qualified wildlife biologist to inspect the bridge during the swallows’ non-breeding season (September 1 through February 28). If nests are found and are abandoned, they may be removed. To avoid damaging active nests adjacent to new bridge construction, nests must be removed before the breeding season begins (March 1).
 - After nests are removed, the undersides of the bridge will be covered with 0.5- to 0.75-inch mesh net by a qualified contractor. All net installation will occur before March 1 and will be monitored by a qualified biologist throughout the breeding season (typically several times a week). The netting will be anchored so that swallows and other birds cannot attach their nests to the bridge through gaps in the net.
 - As an alternative to netting the underside of a bridge, the County may hire a qualified biologist to remove nests as the birds construct them and before any eggs are laid. Visits to the site would need to occur daily throughout the breeding season (March 1 through August 31) as swallows can complete a nest in a 24-hour period.
 - If netting of the bridge does not occur by March 1 and swallows colonize the bridge, modifications to the structure will not begin before August 31 of that year or until a qualified biologist has determined that the young have fledged and all nest use is completed.
- If appropriate steps are taken to prevent swallows and other birds from constructing new nests, work can proceed at any time of the year.

Implementation: The County will hire a qualified wildlife biologist to inspect the bridge during the swallows’ non-breeding season and will implement the measures described above in the unanticipated event the existing bridge is removed as part of this project.

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

Timing: Pre-Construction Phase

Verified By: _____ Date: _____
County Project Manager

Mitigation Measure BIO-10: Identify Suitable Roosting Habitat for Bats and Implement Avoidance and Protective Measures

- To avoid potential impacts on breeding and hibernating bats, tree removal or trimming should occur between September 16 and October 31. If tree removal/trimming cannot be conducted between September 16 and October 31, qualified biologists will examine trees to be removed or trimmed for suitable bat roosting habitat before removal/trimming. High-quality habitat features (large tree cavities, basal hollows, loose or peeling bark, larger snags, palm trees with intact thatch, etc.) will be identified and the area around these features searched for bats and bat sign (guano, culled insect parts, staining, etc.). Passive monitoring using bat detectors may be needed if identification of bat species is required. Survey methods should be discussed with CDFW prior to the start of surveys.
- Measures to avoid and minimize impacts to sensitive bats species will be determined in coordination with CDFW and will include the following:
 - Tree removal will be avoided between April 1 and September 15 (the maternity period) to avoid effects on pregnant females and active maternity roosts (whether colonial or solitary).
 - All tree removal should be conducted between September 16 and October 31, which corresponds to a time period when bats have not yet entered torpor or would be caring for nonvolant young.
 - Trees with high-quality roosting habitat will be removed in pieces rather than felling entire tree.
 - If a maternity roost is located, whether solitary or colonial, that roost will remain undisturbed until September 16 or until a qualified biologist has determined the roost is no longer active, whichever occurs first.
 - If avoidance of nonmaternity roost trees is not possible, and tree removal or trimming cannot occur between September 16 and October 31, qualified biologists will monitor tree trimming or removal that occurs before September 16 or after October 31. If possible, tree trimming and removal should occur in the late afternoon or evening when it is closer to the time that bats would normally arouse. Prior to removal or trimming, each tree will be shaken gently multiple times (at least three times) and several minutes (a minimum of 5 minutes) should pass between shakes before felling trees or limbs to allow bats time to arouse and leave the tree. The biologist should search downed vegetation for dead and injured bats. The presence of dead or injured bats will be reported to CDFW. The biologist will prepare a biological monitoring report, which will be provided to the Project lead and CDFW. If the County can determine that construction activities caused the death of the bat, the County will take efforts to prevent a subsequent death of another bat.
- The biologist will conduct a preconstruction survey of crack, crevice, and cavity habitat including boulder and bedrock outcrops, human-made structures (existing Mosquito bridge span, associated rock stack wall, cable anchors and abutment, other wood-framed structures, etc.) for suitable bat roosting habitat before rock blasting or removal. High-quality habitat

features will be identified and the area around these features searched for bats and bat sign (guano, culled insect parts, urine staining, etc.). Passive monitoring using bat detectors may be needed if identification of bat species is required. Survey methods should be discussed with CDFW prior to the start of surveys.

If a roost is located, the biologist will determine the species, the level of occupancy (solitary or colonial), and the status of the roost (maternity or nonmaternity) if possible. If a maternity roost is located, whether solitary or colonial, that roost will remain undisturbed until September 16 or when a qualified biologist has determined the roost is no longer active, or whichever occurs first. If the roost is not a maternity roost, CDFW will be consulted to determine if the roost can be disturbed, and, if so, the approach to removing the habitat and compensatory mitigation for its loss. Implementation of the approach will be conducted by the biologist in coordination with the contractor, and construction activities to occur before, during and/or after implementation will be monitored, documented, and reported to the Project lead and CDFW.

- The removal of oak woodland will be compensated as discussed in Mitigation Measure BIO-7. Any additional compensation for loss of tree-roosting habitat, if required by CDFW, will be developed in coordination with CDFW.

Implementation: The County will retain a qualified biologist to examine trees to be removed or trimmed for suitable bat roosting habitat before removal/trimming if tree removal/trimming cannot be conducted between September 16 and October 31, and will implement the avoidance and minimization measures above.

Effectiveness Criteria: The County will verify incorporation of measure in permit documentation and plans and will review and approve compensation plan and/or proof of purchase, as applicable prior to issuance of a grading/building permit.

Timing: Pre-Construction Phase

Verified By: _____ Date: _____
County Project Manager

Mitigation Measure BIO-11: Compensate for Permanent Impacts on Willow Thicket Wetland

El Dorado County will compensate for the loss of up to 0.06 acre of riparian willow thicket wetland either by purchasing mitigation bank credits, which can be in the form of preservation and/or creation credits, or by paying into the National Fish and Wildlife Foundation Sacramento District In-Lieu Fee program. The mitigation ratio will be a minimum of 2:1 (2 acres of mitigation for 1 acre of wetland filled) if credits are for preservation of wetland habitat, or 1:1 (1 acre of mitigation for 1 acre of wetland removed) if credits are for creation of wetland habitat. The final ratio will be as required under the Section 404 permit in order to result in no net loss of wetland habitat. If mitigation bank credits are used for mitigation, the County will purchase willow wetland credits from an approved mitigation bank that has a service area that covers the project site.

Implementation: The Contractor will implement the measure described above to avoid impacts willow thicket wetland.

The County will verify incorporation of measure in permit documentation and plans and will review and approve compensation plan and/or proof of purchase, as applicable prior to issuance of a grading/building permit

Effectiveness Criteria:

Timing: Construction Phase

Verified By: _____ Date: _____
County Project Manager

Mitigation Measure BIO-12: Avoid the Introduction and Spread of Invasive Plants

El Dorado County or its contractor will be responsible for avoiding the introduction of new invasive plants and the spread of invasive plants previously documented in the study area. Accordingly, the following measures will be implemented during construction:

- Educate construction supervisors and managers on weed identification and the importance of controlling and preventing the spread of invasive weeds.
- Dispose of invasive species material removed during Project construction off-site at an appropriate disposal facility to avoid the spread of invasive plants into natural areas.
- Minimize surface disturbance to the greatest extent feasible to complete the work.
- Use weed-free imported erosion-control materials (or rice straw in upland areas).
- Use locally grown native plant stock and native or naturalized (noninvasive) grass seed during revegetation.
- On BLM lands and in areas identified with a presence of invasive plants, the Contractor will be required to wash (clean) all equipment before entering the work area and leaving the identified work area. In these locations, routine visual inspections will also be conducted.
- The contractor will be required to prepare a noxious weed plan for submittal that details the surveying, preventing, controlling, and monitoring for noxious weed populations in areas identified to contain noxious weed (invasive plants). This plan will also detail the use of specific prevention BMPs as detailed by the California Invasive Plant Council (<http://cal-ipc.org/ip/prevention/tuc.php>), and as applicable for the project site and operations.
- Post construction monitoring will be conducted for a period of 3 years it is identified during construction by qualified personnel that there is a threat of the spread of noxious weed based on disturbances to areas identified to contain noxious weed, and observations of non-conformance to project invasive weed BMPs or controls to prevent the spread.

Implementation: The Contractor will implement the measures above to avoid the introduction of new invasive plants and the spread of plants documented in the project area.

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

Impact GEO-3: Location on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in an on-site or off-site landslide or subsidence (less than significant with mitigation)

Numerous slope failures of different types and indications of slope instability exist in the Project area. Project excavation, grading, and changes in the routing of overland and subsurface flow may reactivate existing failures and initiate failures where none do not presently exist. Such failures could expose people and structures, including the risk of loss, injury, or death. The impact would be significant.

Proper implementation of the recommended measures in the design-level geotechnical report described in Mitigation Measure GEO-1 would reduce the impact to a less-than-significant level.

Mitigation Measure GEO-1: Design and Implement Slope Stabilization Measures.

Detailed, site-specific geotechnical report(s) will be prepared to identify the type of slope stabilization measures that should be constructed at those existing failures and areas otherwise subject to instability that could be affected by Project construction and operation. Such measures may include but are not limited to installation of slope drains, buttressing of cuts and fills, proper design of roadways, construction of soil nail walls, monitoring of groundwater levels, driving piles below loose soil into competent material, and construction of retaining walls. The recommendations contained in the reports will be reflected in the Project construction plans and specifications.

Implementation: The County will implement a fire protection plan.
The County will prepare and keep on file documentation verifying completion of the geotechnical report addressing the requirements and implementation of the above-referenced measure.

Effectiveness Criteria:

Timing: Pre-Construction, Design Phase, and Construction Phases

Verified By: _____ Date: _____
County Project Manager

Impact HAZ-8: Exposure of 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 (less than significant with mitigation)

Several factors contribute to susceptibility to wildfire danger in El Dorado County, including climate, winds, steep terrain, and vegetation. The Project area is located within a designated SRA for wildfire danger and the Project would require construction work crews, temporarily increasing the number of vehicles in the area. Human activities are the primary reason wildfires start, although lightning strikes do occasionally occur. Project construction would involve the use of heavy equipment, welding, and other activities that have potential to ignite fires. A wildland fire caused by Project

construction activities could result in a significant impact. Implementation of Mitigation Measure HAZ-8 would reduce this potential impact to less-than-significant.

Mitigation Measure HAZ-1: Implement a fire protection plan

The County will require its contractors to coordinate with CAL FIRE to prepare a Fire Protection Plan. CAL FIRE will review, revise if necessary, and approve the plan before construction begins in areas with moderate to high fire hazards. The Fire Protection Plan will include the following measures.

- Internal combustion engines, stationary and mobile, will be equipped with spark arresters. Spark arresters shall be in good working order.
- Contractor will keep all construction sites and staging areas free of grass, brush, and other flammable materials.
- Personnel will be trained in the practices of the fire safety plan relevant to their duties. Construction and maintenance personnel shall be trained and equipped to extinguish small fires.
- Work crews shall have fire-extinguishing equipment on hand, as well as emergency numbers and cell phone or other means of contacting the Fire Department.
- Necessary controls required to be in place when fire risk activities are being performed. Controls may include availability of fire extinguishers, proximity to grass and dry debris, etc.
- Smoking will be prohibited while operating equipment and shall be limited to paved or graveled areas or areas cleared of all vegetation. Smoking will be prohibited within 30 feet of any combustible material storage area (including fuels, gases, and solvents). Smoking will be prohibited in any location during a Red Flag Warning issued by the National Weather Service for the project area.
- Emergency access routes will be properly planned and communicated to all personnel. Boulders will not be placed or stored such that the landowner access is blocked.

Implementation: The contractor will coordinate with CAL FIRE to prepare and implement a fire protection plan. The contractor will acquire approval of a fire protection plan from CAL FIRE prior to construction.

Effectiveness Criteria: The County will verify incorporation of a fire protection plan in permit documentation prior to issuance of a grading/building permit.

Timing: Pre-Construction and Construction Phases

Verified By: _____ Date: _____
County Project Manager

Impact NOI-4: Potential to result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project (less than significant with mitigation)

Summary: As discussed under Impact NOI-1, construction activities may increase noise in the Project area temporarily. Non-impact construction equipment could operate as close as 50 feet from the nearest residence, and noise levels from these types of construction activities could be up to 85 dBA

L_{eq} (refer to Draft EIR Table 3.10-14). Impact pile driving, which could occur as close as 300 feet from the nearest residence, could result in noise levels of approximately 75 dBA L_{eq} at the nearest residence. Although noise levels in the Project area may increase overall, construction would be short-term, occurring over a period of 1 to 2 years (2018 to 2019), and would only intermittently occur in close proximity to nearby noise-sensitive receptors. Further, the proposed Project is intended to alleviate the safety hazards related to the current structurally deficient bridge, and is therefore exempt from the construction noise standards outlined in the County General Plan.

Mitigation Measure NOI-1: The construction contractor shall employ noise-reducing construction practices to reduce construction noise.

The Project applicant will require the construction contractor to employ noise-reducing construction practices to limit construction noise during non-exempt hours (hours before 7 a.m. and after 7 p.m. Monday through Friday, and before 8 a.m. and after 5 p.m. on weekends and federally recognized holidays) to the sound level limits for residential uses shown in Table 3.10-7. Measures that can be used to limit noise include, but are not limited to, those listed below.

- Locating equipment as far as feasible from noise-sensitive uses.
- Requiring that all construction equipment powered by gasoline or diesel engines have sound-control devices that are at least as effective as those originally provided by the manufacturer and that all equipment be operated and maintained to minimize noise generation. This requirement is in effect for all hours of operation.
- Not idling inactive construction equipment for prolonged periods (i.e., more than 2 minutes). This requirement is in effect for all hours of operation.
- Prohibiting gasoline or diesel engines from having unmuffled exhaust. This requirement is in effect for all hours of operation.
- Using noise-reducing enclosures around noise-generating equipment, including shrouds mounted on pile driving equipment.
- Constructing temporary barriers between noise sources and noise-sensitive land uses or taking advantage of existing barrier features (terrain, structures) to block sound transmission.

Implementation: The Contractor shall employ noise-reducing construction practices such that construction noise does not exceed construction noise standards in the El Dorado County general plan noise element, as described above.

Effectiveness Criteria: The County will prepare and keep on file documentation verifying that noise-reducing construction practices are being implemented throughout construction.

Timing: Construction Phase

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