INITIAL STUDY/
MITIGATED NEGATIVE DECLARATION
FOR THE
BLAIR ROAD AT EID CANAL — BRIDGE REPLACEMENT
(BRIDGE NO. 25C0077)(CIP #77119)

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

1. **Project Title:** Blair Road at EID Canal—Bridge Replacement (Bridge No. 25C0077)(CIP #77119)

2. **Lead Agency Name and Address:** El Dorado County Community Development Agency, Transportation Division
2850 Fairlane Court
Placerville, CA 95667

3. **Contact Person and Phone Number:** Chandra Ghimire, PE (530) 621-5998

4. **Project Location:** The project is located north of U.S. 50 on Blair Road in the community of Pollock Pines, in unincorporated El Dorado County. Blair Road Bridge is 0.7 mile north of the Pony Express Trail. The project occurs on the Pollock Pines USGS topographic quad (SE ¼ of NE ¼ of Section 35, T 11N, R 12E).

5. **Description of Project:**

El Dorado County Community Development Agency, Transportation Division proposes to replace the Blair Road Bridge over the El Dorado Irrigation District Canal (Project), located 0.7 mile north of the Pony Express Trail in the community of Pollock Pines, in unincorporated El Dorado County. Built in 1935, the bridge is 15 feet wide with a single lane. A Bridge Inspection Report conducted by Caltrans in 2010 indicates that the bridge has also exhibited evidence of scouring below the eastern abutment and lateral undermining, exposed rebar, diagonal cracks, and spalling on the concrete bridge rail. The bridge has a sufficiency rating of 56.5. The County has evaluated both rehabilitation and replacement options for the existing bridge and has determined that replacement of the bridge is the most cost-effective approach for correcting the functionally obsolete status of the bridge.

The Project involves replacing the existing approximately 36-foot-long, 15-foot-wide, one-lane reinforced concrete slab bridge with a double-barrel culvert (two 42-inch or equivalent size circular culverts) that meets current design standards and improves the horizontal alignment of the roadway. The proposed culvert would tie in with the existing 28-foot-wide roadway providing two 11-foot traffic lanes and 3-foot shoulders on each side of the roadway. The proposed culvert would be located at the existing bridge location. Widening would occur on both sides of the bridge. Placement of the proposed culvert would require excavation two to six feet deep for headwall foundation. The majority of the cut will be two feet deep with six-foot cuts required on the uphill (south) side of the roadway.

A detailed project description follows in Section 3. The proposed project is shown on Figure 3.

6. **General Plan Designation:** El Dorado County right-of-way; Low Density Residential (LDR) (one dwelling unit per 5.0 acres)

7. **Zoning:** Timberland Preserve Zone (TPZ)

8. **Surrounding Land Uses and Setting:**

The Project is located a rural residential area in Pollock Pines, 0.7 miles north of the Pony Express Trail in unincorporated El Dorado County. A north-south rural, two lane road extending from the Pony Express Trail to the intersection of Badger Hill Road and Old Blair Mill Road. The bridge is one lane wide over the El Dorado Irrigation District Canal. Land uses surrounding the bridge include forested residential property, roadways, and the El Dorado Irrigation District Canal. The canal contains water year round, except during the months of October to December.

9. **Other Public Agencies Whose Approval May Be Required (e.g., permits, financing approval,**

or participation agreement):

The Project may require permits or approvals from the following:

- California Department of Transportation — National Environmental Policy Act Categorical Exclusion
- El Dorado County Air Quality Management District — Fugitive Dust Plan Approval

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Section 1
Introduction

El Dorado County (County) Community Development Agency, Transportation Division (Transportation) proposes to replace the Blair Road Bridge (No. 25C0077) over the El Dorado Irrigation District (EID) Canal (Project), located 0.7 mile north of the Pony Express Trail in the community of Pollock Pines, in unincorporated El Dorado County (Figures 1 and 2). The Blair Road Bridge over the EID Canal was built in 1935. It is 15 feet wide with a single lane. A Bridge Inspection Report conducted by Caltrans in 2010 indicates that the bridge has also exhibited evidence of scouring below the eastern abutment and lateral undermining, exposed rebar, diagonal cracks, and spalling on the concrete bridge rail. The bridge has a sufficiency rating of 56.5. The County has evaluated both rehabilitation and replacement options for the existing bridge and has determined that replacement of the bridge is the most cost-effective approach for correcting the functionally obsolete status of the bridge.

El Dorado County is the local lead agency and prepared this Initial Study to consider the significance of potential project impacts pursuant to the California Environmental Quality Act (CEQA) of 1970, as amended (Public Resources Code, Section 21000, et seq.). This Initial Study was prepared in accordance with the State CEQA Guidelines (14 California Administrative Code, Section 14000 et seq.). Based on the results of this Initial Study, the County has determined that the Project would have less than significant impacts on the environment with the incorporation of mitigation measures. The County may approve the Project with the certification of a Mitigated Negative Declaration (MND). The remainder of this document is organized into the following sections:

- **Section 2, Project Description**—Provides a detailed description of the proposed Project;
- **Section 3, Initial Study Checklist and Supporting Documentation**—Provides CEQA Initial Study Resource impact checklists and supporting documentation. Identifies the thresholds of significance, evaluates potential impacts, and describes mitigation necessary to reduce impact significance;
- **Section 4, Initial Study Findings**—Provides a determination of the County's CEQA findings;
- **Section 5, Supporting Information Sources**—Identifies the personnel responsible for the preparation of this document and provides a list of the references cited throughout the document.

Section 2
Project Description

2.1 Location

The project is located north of U.S. 50 on Blair Road in the community of Pollock Pines, in unincorporated El Dorado County. Blair Road Bridge is 0.7 mile north of the Pony Express Trail. The project occurs on the Pollock Pines USGS topographic quad (SE ¼ of NE ¼ of Section 35, T 11N, R 12E). Figure 1 shows the project vicinity and Figure 2 shows the project location.

2.2 Purpose and Objectives

The purpose of the Project is to replace the functionally obsolete Blair Road Bridge over the EID Canal with a culvert that meets current design standards. The project is needed since the existing bridge, built in 1935, is 15 feet wide with a single lane. A Bridge Inspection Report conducted by Caltrans in 2010 indicates that the bridge has also exhibited evidence of scouring below the eastern abutment and lateral undermining, exposed rebar, diagonal cracks, and spalling on the concrete bridge rail. The bridge has a sufficiency rating of 56.5.

The County has evaluated both rehabilitation and replacement options for the existing bridge and has determined that replacement of the bridge is the most cost-effective approach for correcting the functionally obsolete status of the bridge.

2.3 Project Description

The Project involves replacing the existing approximately 36-foot-long, 15-foot-wide, one-lane reinforced concrete-slab bridge with a double-barrel culvert (two 42-inch or equivalent size circular culverts) that meets current design standards and improves the horizontal alignment of the roadway. The proposed culvert would tie in with the existing 28-foot-wide roadway providing two 11-foot traffic lanes and 3-foot shoulders on each side of the roadway. The proposed culvert would be located at the existing bridge location. Widening would occur on both sides. See Figure 3.

Placement of the proposed culvert would require excavation two to six feet deep for headwall foundation. The majority of the cut will be two feet deep with 6-foot cuts required on the uphill (south) side of the roadway.

The existing bridge would be removed before the start of the of culvert construction. Demolition of the existing bridge would be in accordance with the Caltrans Standard Specifications, modified to meet environmental permit requirements. All concrete and debris resulting from the bridge demolition would be removed from the project site and disposed of by the Contractor at an approved site.

Concrete apron and rock slope protection would be used to protect the culvert inlet, culvert outlet, and canal banks from erosion. The rock slope protection would extend from the bed of the canal to the design water surface elevation.

Based on as-built plans provided by AT&T, an underground AT&T communication line may require relocation due to construction of the project. If the line is affected, the new location for the line would be close to the existing location. No other utilities have the potential to be affected.

General construction equipment expected to be used includes dump truck, backhoe, air compressor, dozer, concrete vibrator, loader, grader, scraper, roller, excavator, traffic control and safety devices such as cones, water truck, concrete delivery truck, and service vehicles.

2.4 Right-of-Way and Temporary Easements

The project is likely to require right-of-way acquisition and temporary easements from Assessor Parcel Number (APN) 101-030-13. During construction, staging of construction equipment and vehicles would occur within the roadway right-of-way next to the existing bridge.

2.5 Construction Contract

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

- Construction contract special provisions will require that a Traffic Management Plan be prepared. The Traffic Management Plan will include construction staging and traffic control measures to be implemented during construction to maintain and minimize impacts to traffic during construction. The Traffic Management Plan will address the coordination issues for residential access during short-term road closures during the construction window;
- Contract special provisions will require compliance with El Dorado County Air Quality Management District (EDCAQMD) Rules 223, 223-1, and 223-2 to minimize fugitive dust emissions as well as utilize all applicable best management practices;
- Contract provisions will require notification of County Transportation and compliance with California Health and Safety Code Section 7050.5 and California Public Resources Code Sections 5097.5, 5097.9 et seq., regarding the discovery and disturbance of cultural materials or human remains should any be discovered during project construction;
- Contract provisions will require that in the event that unanticipated historical, archeological (including structural features, unusual amounts of bone or shell, artifacts, human remains, or architectural remains) or paleontological resources are encountered during construction, all earthmoving activity shall cease within 60 feet of the find until Transportation retains the services of a qualified archaeologist and/or paleontologist. Any and all potential archaeological or paleontological resources discovered during construction shall be examined by a qualified

archaeologist or paleontologist, respectively, who shall examine the findings, assess their significance, and offer recommendations for procedures deemed appropriate to either further investigate or mitigate adverse impacts to those archaeological or paleontological resources that have been encountered (e.g., excavate the significant resource).

- Transportation or its construction contractors will conduct early coordination with utility service providers, law enforcement and emergency service providers to ensure minimal disruption to service during construction;
- Transportation and its construction contractors will comply with the State of California Standard Specifications, written by the State of California Department of Transportation; and
- The Project would comply with General Plan Policy 6.5.1.11 pertaining to construction noise.

2.6 Construction Schedule

The project is anticipated to be constructed within a single construction season (approximately between September 16 and the end of December). Blair Road would be closed within the limits of the project area for approximately three months during construction. During this period, traffic would be detoured to Forebay Road, an adjacent county road, for an approximately 5-mile detour.

2.7 Related Project

2.7.1 El Dorado Irrigation District Main Ditch Piping

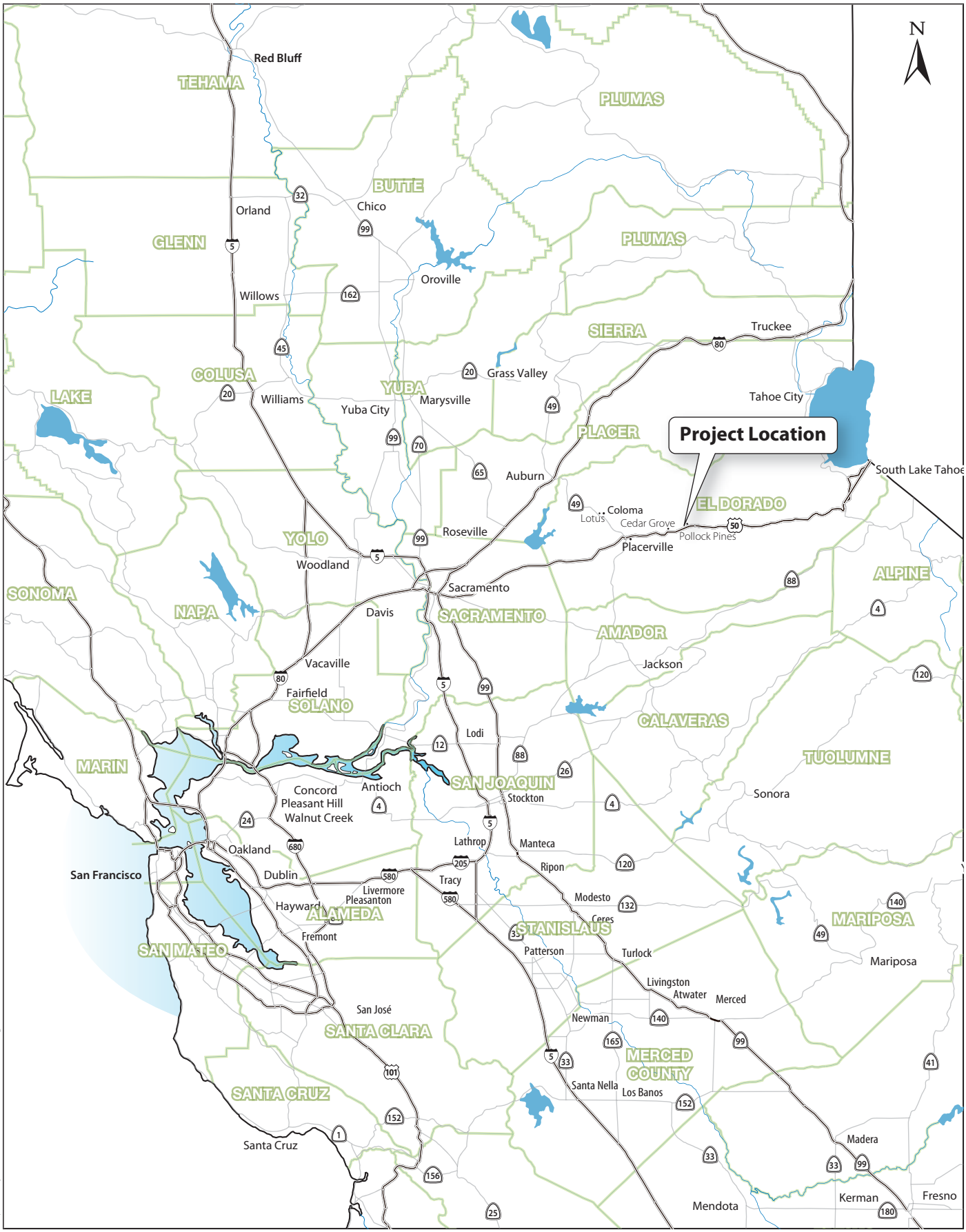
EID is planning to pipe the EID 3-mile-long Main Canal located in El Dorado County near the communities of Pollock Pines and Camino, including the portion of the canal that is crossed by Blair Road. EID is applying for federal funds for this project. The purpose of this project would be to conserve and use water more efficiently by preventing seepage and evaporation losses from the currently earthen, unlined ditch. At the Blair Road crossing, EID proposes to install a large diameter 36-inch to 42-inch pipe within the proposed culvert.

2.8 Required Permit Approvals

Based on the environmental conditions of the project area and the analysis of potential impacts provided in Section 4, Project implementation will require National Environmental Policy Act (NEPA) compliance and issuance of other approvals, as listed in the table below.

Table 2.8-1. Required Permit Approvals

Approving Agency	Required Permit/Approval	Required for
Federal Agency		
California Department of Transportation through NEPA assignment granted by the Federal Highway Administration	NEPA Categorical Exclusion	Funding through the Federal Highway Bridge Program
State Agencies		
California Department of Transportation	Project Approval/NEPA Compliance	Funding through the Federal Highway Bridge Program
Local Agency		
El Dorado County	Project Approval/CEQA Compliance	Project implementation and funding
El Dorado County Air Quality Management District	Fugitive Dust Plan	District Rule 223-1 (Fugitive Dust, Construction Activities)



Graphics/Projects/00507.12 El Dorado Hills Three Bridges

Figure 1
Project Vicinity

Graphics/Projects/00507.12 El Dorado Hills Three Bridges (10-12) SS

Figure 2
Project Location

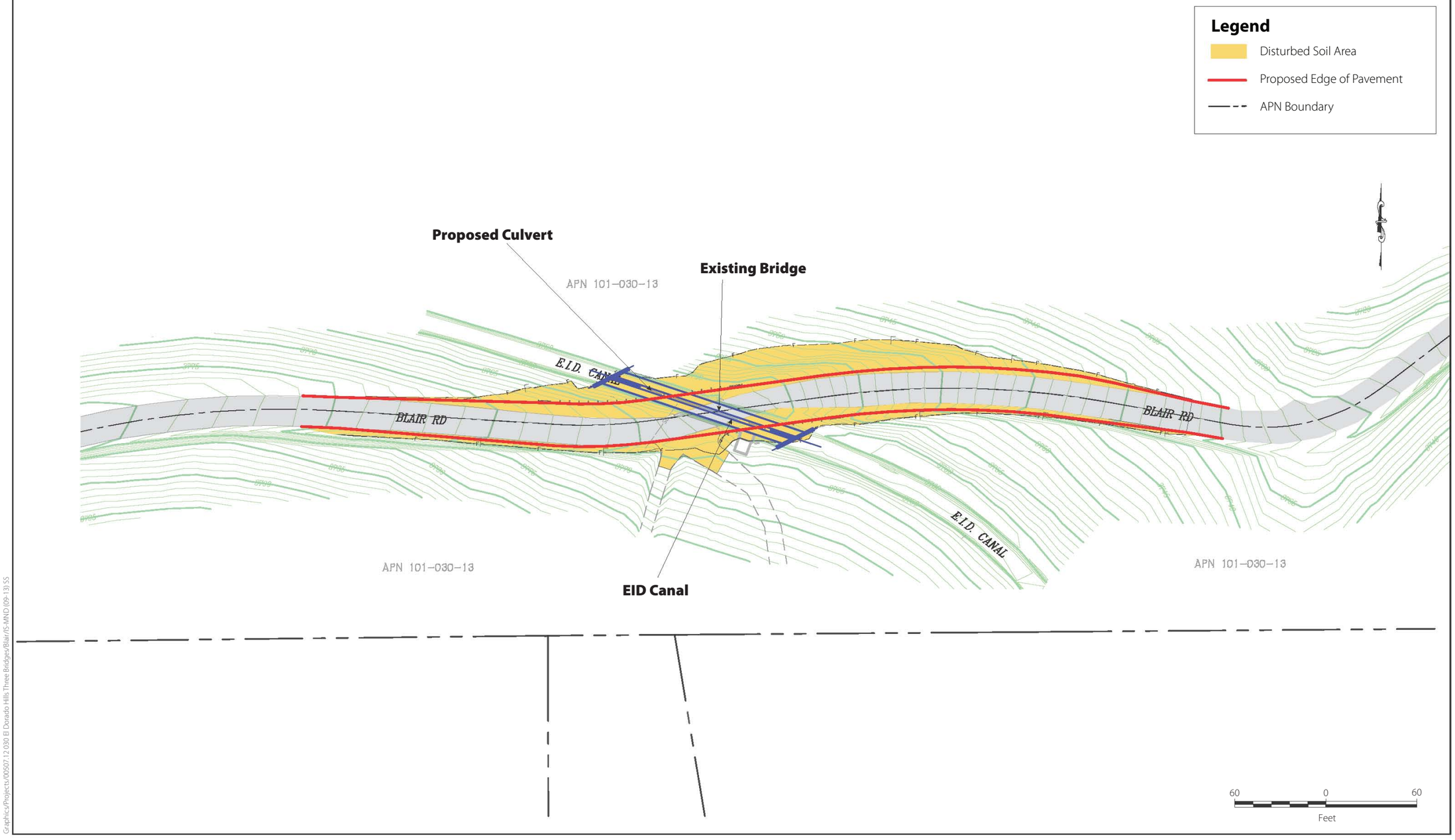


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Figure 3
Blair Road Bridge Replacement Project

Section 3

Initial Study Checklist and Supporting Documentation

3.1 Initial Study Checklist

This section of the Initial Study incorporates the Environmental Checklist contained in Appendix G of the CEQA Guidelines. Each resource topic section provides a determination of potential impact and an explanation for the checklist impact questions. The following 16 environmental categories are addressed in this section:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities

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

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

3.2 Setting, Impacts, and Mitigation Measures

3.2.1 Aesthetics

I. AESTHETICS—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation is Incorporated*	*Less than Significant Impact*	*No Impact*
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?	☐	☐	☐	☒
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	☐	☐	☒	☐

Environmental Setting

The project area is characterized by dense coniferous forest lands and rolling terrain in the western Sierra Nevada Mountains, at an elevation of approximately 3,700 feet. The project vicinity includes residential development, roadways and related infrastructure, and dense coniferous forest lands. Primary viewers include motorists accessing the project site.

Potential Environmental Effects

a. No Impact

Scenic vistas are not offered in the project area due to dense evergreen vegetation, buildings, and intervening topography and, therefore, there would be no impact to scenic vistas.

b. No Impact

U.S. 50, located just over 0.3 miles south of where Blair Road crosses the EID canal, is an officially designated state scenic highway (Caltrans 2013). However, the proposed project area is not visible from U.S. 50 because intervening buildings and evergreen vegetation prevent such views. The El Dorado County General Plan refers to Table 5.3-1 of the General Plan EIR for local scenic corridors. However, there are no locally designated scenic routes in the project area (El Dorado County 2004a). Therefore, there would be no impact to scenic highways as a result of the proposed Project.

c. Less than Significant Impact

The proposed Project would remove the existing bridge, widen the roadway, and install a double-barrel culvert. Up to 15 trees with diameters at breast height greater than 4 inches could be removed to construct the project. The loss of these trees would not substantially degrade the existing visual character or quality of the site. See Section 3.2.4, *Biological Resources*, for measures to avoid or minimize impacts to adjacent native vegetation. Vegetation would naturally re-colonize disturbed areas within a short period of time to limit impacts to the visual character of the project area associated with vegetation removal.

d. Less than Significant Impact

The proposed Project would not introduce any new sources of light. Roadway widening would slightly increase the amount of available reflective surface area and tree removal would allow for more sunlight to reach the roadway surface. However, the amount of added surface area and additional amount of sunlight is not enough to substantially increase glare at this location, given the density of the remaining vegetation that shades the project area.

3.2.2 Agricultural Resources

II. AGRICULTURAL RESOURCES—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation is Incorporated*	*Less than Significant Impact*	*No Impact*
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?	☐	☐	☐	☒
c. Involve other changes in the existing environment which, due to their location or nature, could result in conversion?	☐	☐	☐	☒

Environmental Setting

The Blair Road Bridge is located in a rural residential area in Pollock Pines. Review of the El Dorado County Important Farmland Map 2010 found that the land around the Blair Road Bridge is classified as "Urban and Built-up Land." The bridge is not located within lands classified as Prime Farmland, Unique Farmland or Farmland of Statewide Importance (California Department of Conservation 2013a). In addition, the bridge is not located on land under a Williamson Act contract (California Department of Conservation 2013b). The bridge is not located in an area zoned for agricultural uses (El Dorado County 2009). Blair Road Bridge is located in an area zoned "Timberland Preserve Zone". This zoning was established to "protect and conserve lands identified as suitable for commercial timber production within the County that are important to the local forest product industry and

forest lands that serve other values…" (El Dorado County 2004a). The parcel supports an active tree farm with sales of holiday evergreen trees to the public.

Potential Environmental Effects

a. No Impact

Replacement of the Blair Road Bridge would not affect any lands classified as Prime Farmland, Unique Farmland or Farmland of Statewide Importance.

b. No Impact

There are no lands under a Williamson Act contract or zoned for agricultural uses adjacent to the proposed project. Project implementation would require removing 15 trees immediately surrounding the bridge, but would not affect the current or future use of the area for timber production. The tree farming activities that occur on the parcel would not be affected by the proposed project.

c. No Impact

No agricultural uses occur in the vicinity of the bridge and there are no farmlands; replacing the existing bridge would not result in the conversion of farmland to non-agricultural uses.

3.2.3 Air Quality

III. AIR QUALITY—When available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation is Incorporated*	*Less than Significant Impact*	*No Impact*
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c. 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)?	☐	☐	☐	☒
d. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e. Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐
f. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐

III. AIR QUALITY—When available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation is Incorporated*	*Less than Significant Impact*	*No Impact*
g. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

Environmental Setting

The project area is located in the Mountain Counties Air Basin (MCAB). The San Francisco Bay Area Air Basin (SFBAAB) and the Sacramento Valley Air Basin (SVAB) are located to the west, and the San Joaquin Valley Air Basin (SJVAB) is located to the south. Climate in the MCAB relate to elevation and proximity to the Sierra Ridge. Precipitation is greater and temperatures are lower at higher elevations. Summer temperatures in the project area are in the mid- to upper nineties. Winter temperatures are in the upper thirties to lower forties. Average precipitation in the project area is 3.2 inches per month with the majority of rainfall in the months of January through March.

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

The federal Clean Air Act (CAA), enacted in 1963 and amended several times thereafter, establishes the framework for modern air pollution control. The Environmental Protection Agency (EPA) has established national ambient air quality standards (NAAQS) for six criteria pollutants. Criteria pollutants include CO, nitrogen dioxide (NO_2), sulfur dioxide (SO_2) ozone, lead, and particulate matter (PM), which includes two subsets: PM less than 10 microns in diameter (PM10) and PM less than 2.5 microns in diameter (PM2.5). These standards are divided into primary and secondary standards. Primary standards are designed to protect public health and secondary standards are designed to protect other values. Because of the health-based criteria identified in setting the NAAQS, the air pollutants are termed "criteria" pollutants. California has adopted its own, more stringent, ambient air quality standards (CAAQS). The NAAQS and CAAQS are summarized in Table 3.2.3-1.

Table 3.2.3-1. Federal and State Ambient Air Quality Standards

Criteria Pollutant	Average Time	California Standards	National Standards	
			Primary	Secondary
Ozone	1-hour	0.09 ppm	None	None
	8–hour	0.070 ppm	0.075 ppm	0.075 ppm
Particulate Matter (PM10)	24-hour	50 μg/m^3	150 μg/m^3	150 μg/m^3
	Annual mean	20 μg/m^3	None	None

Criteria Pollutant	Average Time	California Standards	National Standards	
			Primary	Secondary
Fine Particulate Matter (PM2.5)	24-hour	None	35 μg/m^3	35 μg/m^3
	Annual mean	12 μg/m^3	15.0 μg/m^3	15.0 μg/m^3
Carbon Monoxide	8-hour	9.0 ppm	9 ppm	None
	1-hour	20 ppm	35 ppm	None
Nitrogen Dioxide	Annual mean	0.030 ppm	0.053 ppm	0.053 ppm
	1-hour	0.18 ppm	0.100 ppm	None
Sulfur Dioxide	Annual mean	None	0.030 ppm	None
	24-hour	0.04 ppm	0.014 ppm	None
	3-hour	None	None	0.5 ppm
	1-hour	0.25 ppm	0.075 ppm	None
Lead	30-day Average	1.5 μg/m^3	None	None
	Calendar quarter	None	1.5 μg/m^3	1.5 μg/m^3
	3-month average	None	0.15 μg/m^3	0.15 μg/m^3
Sulfates	24-hour	25 μg/m^3	None	None
Hydrogen Sulfide	1-hour	0.03 ppm	None	None
Vinyl Chloride	24-hour	0.01 ppm	None	None

Source: California Air Resources Board 2012a.
ppm = parts per million.
μg/m^3 = micrograms per cubic meter.

Local monitoring data are used to designate areas as nonattainment, maintenance, attainment, or unclassified for the NAAQS and CAAQS. The four designations are further defined below. Table 3.2.3-2 summarizes the attainment status of the project area with regard to the NAAQS and CAAQS.

- **Nonattainment:** Assigned to areas where monitored pollutant concentrations consistently violate the standard in question.
- **Maintenance:** Assigned to areas where monitored pollutant concentrations exceeded the standard in question in the past but are no longer in violation of that standard.
- **Attainment:** Assigned to areas where pollutant concentrations meet the standard in question over a designated period of time.
- **Unclassified:** Assigned to areas were data are insufficient to determine whether a pollutant is violating the standard in question.

Table 3.2.3-2. Federal and State Attainment Status of the Project Area (El Dorado County)

Pollutant	NAAQS	CAAQS
1-hour ozone	–	Nonattainment
8-hour ozone	Severe nonattainment	Nonattainment
CO	Attainment	Unclassified
PM2.5	Nonattainment	Unclassified
PM10	Attainment	Nonattainment

Sources: California Air Resources Board 2012b; U.S. Environmental Protection Agency 2012.
– = no applicable standard.

The EDCAQMD administers the CAA in accordance with state and federal guidelines. The EDCAQMD regulates air quality through its district rules and permit authority. It also participates in planning review of discretionary project applications and provides recommendations. The proposed project may be subject to the following El Dorado County Air Pollution Control District (EDCAPCD) rules.

- **Rule 205 (Nuisance)**: Prohibits the discharge of air containments which cause injury, detriment, nuisance, or annoyance.
- **Rule 207 (Particulate Matter)**: Limits the quantity of PM through concentration limits.
- **Rule 223 (Fugitive Dust)**: Limits the amount of PM and asbestos PM entrained in the atmosphere.
- **Rule 224 (Cutback and Emulsified Asphalt Paving Materials)**: Limits emissions of ROGs from the use of cutback and emulsified asphalt paving materials, paving, and maintenance operations.
- **Rule 233 (Stationary Internal Combustion Engines)**: Limits emissions of NO_x and CO from stationary internal combustion engines. (If construction requires engines rated at more than 50 brake horsepower.)

EDCAQMD's *Guide to Air Quality Assessment* (2002) specifies specific daily emissions thresholds that can be used to determine the significance of project emissions. Thresholds of significance for ROG and NO_X are 82 pounds per day. The EDCAQMD considers a significant cumulative impact to occur if the project requires a change in the existing land use designation (i.e., general plan) and would individually exceed the project-level thresholds of significance.

The EDCAQMD has not developed specific thresholds of significance for the analysis of greenhouse gas (GHG) emissions in CEQA documents. In absence of a significance threshold published by the EDCAQMD, the Bay Area Air Quality Management District's (BAAQMD) land-use development threshold of 1,100 metric tons carbon dioxide equivalent (CO_2e) per year is used to evaluate the significance of GHG emissions. This threshold is currently the most stringent threshold adopted by any air district in the state. It is important to note that the BAAQMD's threshold was developed to evaluate operational GHG emissions and does not specifically apply to construction emissions. Because construction emissions are temporary, as opposed to annual, utilizing the BAAQMD's operational threshold represents a conservative assessment of potential construction impacts.

Potential Environmental Effects

The proposed project entails replacing the Blair Road Bridge. It is not capacity increasing and will not affect vehicle miles travel (VMT) or traffic speeds in the project area (Ghimire pers. comm.).

There would therefore be no operational emissions, relative to existing conditions. The following assessment therefore focuses exclusively on construction-related emissions, as there would be no impact related to project operations.

a. No Impact

The proposed Project is identified in the Sacramento Council of Governments' Metropolitan Transportation Plan/Sustainable Communities Strategy 2035 (Sacramento Council of Governments 2012). Projects included in the Metropolitan Transportation Plan have been determined to be consistent with the planning goals of the State Implementation Plan.

b. Less than Significant

Construction activities associated with the proposed Project would generate short-term emissions of ROG, NO_X, CO, PM10, and PM2.5 (refer to item "f" for a discussion of GHG impacts). Emissions would originate from construction equipment exhaust, employee vehicle exhaust, haul truck vehicle exhaust, and site grading. Construction-related emissions would vary substantially depending on the level of activity, the specific construction operations, and wind and precipitation conditions.

Construction emissions were estimated using Sacramento Metropolitan Air Quality Management District's (SMAQMD's) Road Construction Emissions Model (Version 7.1.2). Based on information provided by the County for the air quality analysis, it was assumed that construction would involve 5 phases in late 2016. Table 3.2.3-3 summarizes the construction phases and associated equipment assumptions. It was assumed that construction would require 15 employees, and that all individuals would make two trips to the construction site per day. Approximately 50 cubic yards of soil would be imported, requiring 5 haul truck trips. Round trip distance was assumed to be 80 miles (Ghimire pers. comm.).

Table 3.2.3-3. Equipment Inventory for Project Construction

Phase	Start Date*	Days	Equipment
Demolition	October 2016	2	Excavator (5 hours/day) Dump Truck (4 hours/day)
Grubbing/Land Clearing	October 2016	6	Backhoe (2 hours/day) Bulldozer (4 hours/day) Excavator (4 hours/day)
Grading/Excavation	October 2016	6	Backhoe (2 hours/day) Bulldozer (4 hours/day) Excavator (4 hours/day)
Drainage/Utilities	October 2016	5	Backhoe (2 hours/day) Roller (4 hours/day) Water Truck (4 hours/day)
Paving	October 2016	5	Roller (4 hours/day) Water Truck (4 hours/day)

*Assumed dates for air quality study
Source: Ghimire pers. comm.

Table 3.2.3-4 summarizes estimated emissions associated with construction of the proposed Project. All construction activities are expected to occur sequentially. As shown in Table 3.2.3-4, criteria pollutant emissions associated with construction of the proposed project would be well below the

applicable emissions thresholds. Moreover, as described in Chapter 2, *Project Description*, the project will implement all required EDCAQMD best management practices. Consequently, air quality impacts as a result of Project construction would be less than significant.

Table 3.2.3-4. Construction-Related Criteria Pollutant Emissions (pounds per day)

				PM10			PM2.5		
Phase	ROG	CO	NO_X	Total	Exhaust	Dust	Total	Exhaust	Dust
Demolition	1.0	6.7	8.4	1.7	1.3	2.8	0.6	0.3	0.6
Grubbing/Land Clearing	1.2	6.7	9.6	3.3	0.5	2.8	1.0	0.5	0.6
Grading/Excavation	1.4	7.4	17.0	3.5	0.7	2.8	1.1	0.6	0.6
Drainage/Utilities	0.6	4.7	3.8	1.6	0.2	1.4	0.5	0.2	0.3
Paving	1.2	6.5	6.4	0.4	0.4	0.0	0.3	0.3	0.0
EDCAPCD Threshold	82	–[a]	82	–[a]	–	–	–[a]	–	–

Source: Sacramento Metropolitan Air Quality Management District Road Construction Emissions Model (Version 7.1.2).

[a] Violation of the CAAQS.

c. No Impact

A proposed Project is considered cumulatively significant if it requires a change in the existing land use designation (i.e., general plan) and would individually exceed the project-level thresholds of significance. The Project would not require any land use designation changes. Moreover, as shown in Table 3.2.3-4, construction emissions are well below applicable EDCAQMD thresholds. Therefore, the proposed Project would not result in a cumulatively considerable net increase in emissions.

d. Less than Significant

Diesel Particulate Matter

In 1998, the California Air Resources Board (ARB) classified diesel particulate matter (DPM) as a carcinogenic toxic air containment (TAC). TACs are pollutants that may result in an increase in mortality or serious illnesses or pose a present or potential hazard to human health. Health effects related to TACs include cancer, birth defects, neurological damage, damage to the body's natural defense system, and diseases that lead to death. Heavy-duty construction equipment and haul trucks represent sources of DPM from project construction.

Sensitive receptors that could be adversely affected by DPM include facilities that are often used by children, the elderly, people with illnesses, or other groups sensitive to the effects of air pollution. Examples of sensitive receptors include residences, hospitals, schools, parks, and places of worship. The project area is predominantly rural with several residences immediately adjacent to the construction site. Heavy-duty construction equipment, which generates DPM, would operate within the vicinity of these receptors. Cancer health risks associated with exposures to diesel exhaust typically are associated with chronic exposure, in which a 70-year exposure period is assumed. Because heavy construction would be operated short-term and last less than 1 month, construction of the proposed project is not anticipated to result in an elevated cancer risk to exposed sensitive receptors. In addition, DPM emitted during construction would dissipate as a function of distance and would be lower at the nearest sensitive receptor. Consequently, emissions of PDM are not

expected to expose sensitive populations to substantial pollutant concentrations. This impact is considered less than significant.

Naturally Occurring Asbestos

According to the current El Dorado County Naturally Occurring Asbestos Review Map, the proposed project is not located in an area known to contain naturally occurring asbestos (NOA) (El Dorado County 2005). Accordingly, the project is not required to submit an NOA mitigation plan, but must comply with District Rule 223 (as outlined in Chapter 2, *Project Description*). This impact is less than significant.

e. Less than Significant

While offensive odors rarely cause any physical harm, they can be unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and air districts. Project-related odor emissions would be limited to the construction period, when emissions from equipment may be evident in the immediately surrounding area. These activities would be short term and are not likely to result in nuisance odors that would violate EDCAPCD standards. This impact is therefore considered less than significant.

f. Less than Significant

Construction activities would generate short-term emissions of carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O) from the use of equipment (e.g., excavators) and on-road vehicles (e.g., employee commuter cars and haul trucks). SMAQMD's Road Construction Model and the assumptions summarized in Table 3.2.3-3 were used to estimate CO_2 emissions associated with construction. The Road Construction Model does not quantify CH_4 and N_2O emissions from off-road equipment or onroad vehicles. Emissions of CH_4 and N_2O from diesel equipment were determined by scaling the construction CO_2 emissions predicted by Road Construction Emissions Model by the ratio of CH_4/CO_2 and N_2O/CO_2 emissions expected per gallon of diesel fuel according to the Climate Registry (Climate Registry 2012). GHG emissions from gasoline-powered worker commutes were determined by dividing the annual CO_2 emissions from construction worker and vendor commutes by 0.95. This is based on the EPA's recommendation that CH_4 and N_2O account for 5% of on-road GHG emissions, accounting for global warming potential (GWP) (U.S. Environmental Protection Agency 2011).

Table 3.2.3-5 summarizes the annual GHG emissions from off-road diesel equipment and on-road vehicles associated with construction of the proposed project.

Table 3.2.3-5. Summary of Construction GHG Emissions (metric tons)

Off-Road Emissions[a]			On-Road Emissions[b]		
CO_2	CH_4	N_2O	CO_2	Other GHGs	Total (CO_2e)[c]
12	0.007	0.003	7	0.326	20

Source: Sacramento Metropolitan Air Quality Management District Road Construction Emissions Model (Version 7.1.2); Climate Registry 2012; U.S. Environmental Protection Agency 2011.

[a] From construction equipment and haul trucks (diesel).

[b] From construction worker commutes (mix of fuels). Other GHGs include CH_4, N_2O, and hydrofluorocarbons, which represent 5% of total GHG emissions from on-road sources (calculated by diving CO_2 emissions by 0.95 and multiplying the resulting number by 0.05).

[c] Refers to carbon dioxide equivalent, which includes the relative warming capacity (global warming potential) of each GHG.

As indicated in Table 3.2.3-5, construction of the proposed project would generate 20 metric tons of GHG emissions over the 1-month construction period. This is well-below the analysis threshold of 1,100 metric tons CO_2e. Accordingly, GHG impacts caused by emissions from project construction are considered to be less than significant.

g. No Impact

EDCAPCD has not yet adopted a qualified plan, policy, or regulation to reduce GHG emissions. Therefore, the most applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions is Assembly Bill (AB) 32, which codified the State's GHG emissions reduction targets for the future.

ARB adopted the AB 32 Scoping Plan as a framework for achieving AB 32. The Scoping Plan outlines a series of technologically feasible and cost-effective measures to reduce statewide GHG emissions. These strategies are geared towards sectors and activities that generate significant amounts of GHGs. For example, the majority of measures address building, energy, waste and wastewater generation, goods movement, on-road transportation, water usage, and high global warming potential gases. Activities associated with the project are not considered by the AB 32 Scoping Plan as having a high potential to emit GHGs. This statement is substantiated by the project-level emissions analysis, which demonstrates that the GHG emission rate is considerably low (20 metric tons CO_2e; for comparative purposes, statewide GHG emissions in 2009 were 456,770,000 metric tons CO_2e). Consequently, none of the AB 32 reduction strategies are applicable to construction of the project. Implementation of the project would therefore not conflict with implementation of AB 32.

3.2.4 Biological Resources

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

Environmental Setting

The environmental setting was documented in a Natural Environment Study (NES; ICF International 2013a). The NES is a standard Caltrans format for documenting Project setting and impacts. The 2.29-acre study area for the NES encompasses Blair Road at the bridge over the EID Canal, located approximately 0.7 mile north of the Pony Express Trail in the community of Pollock Pines, in unincorporated El Dorado County. The biological study area includes the proposed Project area (i.e., where project-related ground-disturbing construction, staging, or access activities would occur) and

an approximately 25- to 160-foot buffer outside of the proposed area of disturbance. Figure 4 depicts the biological study area and land cover types.

Physical Conditions

The study area is located in the Sierra Nevada Foothills subregion within the Sierra Nevada Region of the California Floristic Province (Baldwin et al. 2012:39, 42–43). The EID Canal bisects the study area. Elevation in the study area ranges from approximately 3,720 feet to 3,760 feet above mean sea level.

The study area is located within the South Fork American Watershed (HUC # 18020129). The EID Canal is the only drainage feature in the study area. (ICF International 2013a)

The climate is generally Mediterranean, with cold, wet winters and warm, dry summers. Precipitation occurs primarily between October and May, with a distinct dry period from June to September. The average total annual precipitation is approximately 52.22 inches (ICF International 2013a).

Biological Conditions in the Biological Study Area

One vegetation community type (mixed conifer forest) and one unvegetated community (canal) were identified and mapped in the study area (see Figure 4). The study area also contains the developed land cover type, which includes roads and paved or graveled areas.

Mixed Conifer Forest

Mixed conifer forest is a common natural community. Common natural communities are habitats that are widespread, reestablish naturally after disturbance, or are highly managed, and may have low species diversity and/or support primarily nonnative species. These communities are not generally protected by agencies unless the specific site is habitat for or supports special-status species (e.g., raptor foraging or nesting habitat, upland habitat in a wetland watershed). Mixed conifer forest is not recognized as a sensitive natural community.

A total of approximately 1.85 acres of mixed conifer forest is in the study area (Figure 4) occurring along the sides of the roadway. Douglas fir (*Pseudotsuga menziesii* var. *menziesii*), incense cedar (*Calocedrus decurrens*), and sugar pine (*Pinus lambertiana*) are the predominant overstory trees. A total of 236 trees were mapped in the study area. Additional tree species were noted during the botanical surveys of the study area vicinity, including white fir (*Abies concolor*), big-leaf maple (*Acer macrophyllum*), Northern California black walnut (*Juglans hindsii*), tan oak (*Notholithocarpus densiflorus*), black oak (*Q. kelloggii*), Ponderosa pine (*Pinus ponderosa*), arroyo willow (*Salix lasiolepis*), Pacific yew (*Taxus brevifolia*), and California bay (*Umbellularia californica*).

Small tree and shrub species include Pacific madrone sapling (*Arbutus menziesii*), deer brush (*Ceanothus integerrimus*), mountain misery (*Chamaebatia foliolosa*), mountain dogwood (*Cornus nuttallii*), California hazel (*Corylus cornuta* ssp. *californica*), Sierra coffee berry (*Frangula rubra* ssp. *obtusissima*), gooseberry (*Ribes* sp.), wild rose (*Rosa gymnocarpa* var. *gymnocarpa*), and several native and non-native species of blackberry and raspberry (*Rubus armeniacus, R. glaucifolius, R. laciniatus,* and *R. parviflorus*). Annual grasses and native and nonnative forbs also grow in the understory.

Mixed conifer forest provides habitat for a large number of wildlife species. The large variety of plant species within mixed conifer forest provides a diversity of food and cover for wildlife. Berries from deerbrush and other shrubs and a variety of grasses and forbs provide essential resources for foraging wildlife. Mature forests are valuable habitat for cavity nesting birds (Mayer and Laudenslayer 1988). Wildlife species that are common in this habitat type include Steller's jay (*Cyanocitta stelleri*), hairy woodpecker (*Picoides villosus*), mountain chickadee (*Parus gambeli*), western gray squirrel (*Sciurus griseus*), porcupine (*Erethizon dorsatum*), gray fox (*Urocyon cinereoargenteus*), and black-tailed deer (*Odocoileus hemionus*) (Zeiner et al. 1990a, 1990b). Wildlife species observed/detected during the field survey were white-headed woodpecker (*Picoides albolarvatus*), northern flicker (*Colaptes auratus*), and Steller's jay.

Canal

The EID canal is a water of the state and, therefore, considered a natural community of special concern. Natural communities of concern are generally regulated by agencies and are considered sensitive because of their high species diversity, high productivity, unusual nature, limited distribution, or declining status.

A total of approximately 0.07 acre of the EID canal crosses the study area. The canal bisects the study area and is approximately 10 feet wide at the bridge. It had 3-6 inches of standing water at the time of the December field survey. The canal has a soil bottom with steep/vertical banks with sparse grasses, forbs, and small patches of blackberry. The canal contains no emergent vegetation but had small amounts of floating and submerged dead vegetation and debris. The canal waters flow from the EID Forebay located upstream to a water treatment facility downstream. Generally the canal contains flowing water at an average rate of 12–15 cubic feet per second (cfs) and up to 40 cfs, but the flow is stopped for approximately two and half months during October to December.

A 3-mile long section of the EID canal (the main ditch) was delineated by EN2 Resources, Inc. on October 2 and 7, 2012. The delineation was conducted in the study area, as well as in the upstream section to the EID Forebay and downstream for approximately 0.5 mile. The USACE conducted a field visit of the delineation area on January 30, 2013 and preliminarily concluded that the canal is nonjurisdictional because it does not return flows to a water of the U.S. Although the canal is not a water of the United States, it is a water of the state, regulated by the RWQCB under the Porter-Cologne Water Quality Act. Because this section of the canal carries water and is regulated by the state, it is considered a natural community of concern.

Wildlife use of canals is dependent on several factors including the extent of vegetation within and along the canal, whether or not the canal is concrete lined, the period of time that water remains within the canal, and the velocity of flow. Concrete-lined canals or those with high flow velocities typically have low value for wildlife, although large ditches/canals with slower flows can be used by waterfowl. Canals with vegetation within and along the banks and adequate duration of water can provide food, water, cover, and dispersal corridors for various wildlife species, such as Sierran treefrog (*Pseudacris sierra*), California newt (*Taricha torosa*), great egret (*Ardea alba*), raccoon (*Procyon lotor*), and striped skunk (*Mephitis mephitis*)

Figure 4
Landcover and Soil Types in the Blair Road Bridge Replacement Project Biological Study Area

Developed Areas

The developed cover type occurs in the study area in the form of roads and paved or graveled areas. Paved and graveled areas generally do not provide habitat for wildlife.

Potential impacts to biological resources were evaluated in the NES. Suitable or potentially suitable habitat for six special-status plant species was identified in the study area within mixed conifer forest habitat. None of these six species was observed in the study area during the June or July 2012 botanical surveys. Therefore, no special-status species are present in the study area. The project would, therefore, have no effect on plant species listed on the federal Endangered Species Act. The NES determined that habitat for the following wildlife species could be occupied at the time of construction. This biological resources section evaluates potential impacts of the Project on these species:

- California red-legged frog (*Rana draytonii*)
- Western pond turtle (*Emys marmorata*)
- Bald eagle (*Haliaeetus leucocephalus*)
- Northern goshawk (*Accipiter gentilis*)
- California spotted owl (*Strix occidentalis occidentalis*)
- Olive-sided flycatcher (*Contopus cooperi*)
- Pallid bat (*Antrozous pallidus*)
- Silver-haired bat (*Lasionycteris noctivagans*)
- Western red bat (*Lasiurus blossevillii*)
- Hoary bat (*Lasiurus cinereus*)
- Fringed myotis (*Myotis thysanodes*)
- Long-legged myotis (*Myotis volans*)
- Fisher *(Martes pennanti)*

Potential Environmental Effects

a. Potentially Significant Unless Mitigation is Incorporated

California Red-legged Frog

The proposed project is within the current and historical range of the California red-legged frog. The nearest occurrence is at Spivey Pond, approximately 0.9 mile away. The project site and Spivey Pond are not hydrologically connected and are further separated by US 50 and the extensive steep slope on the south side of U.S. Route 50. The EID canal does not provide suitable breeding habitat for California red-legged frog because of the fast flow within the canal, steep banks, and lack of vegetation. The canal provides limited non-breeding dispersal/aquatic habitat during the time the water flow is shut down for maintenance (from October 15 to December 15). There is limited potential for a frog to occur in the canal during this time. Because the proposed project is located within the current and historical range of the species, Caltrans and the County have agreed to implement measures to reduce the potential for adverse effects to California red-legged frog. The measures are contained in a Letter of Concurrence issued by the USFWS (Bauer 2013).

Implementation of Mitigation Measures BIO-1 through BIO-4 would reduce the potential for impacts on California red-legged frog.

Mitigation Measure BIO-1: Protect Water Quality and Prevent Erosion and Sedimentation in the EID Canal

The County and/or its construction contractor will ensure the construction specifications include the following water quality protection and erosion and sediment control best management practices (BMPs), based on standard County/Caltrans requirements, to minimize construction-related contaminants and mobilization of sediment in the EID canal in and adjacent to the project 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 the canal is in good working order and free of dripping or leaking engine fluids. All vehicle maintenance will be performed at least 50 feet from the canal. Any necessary equipment washing will be carried out where the water cannot flow into the canal.
- 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 County will review and approve the contractors' toxic materials spill prevention control and countermeasure plan before allowing construction to begin. The County will routinely inspect the construction site to verity that BMPs specified in the plan are properly implemented and maintained. The County will notify the contractor immediately if there is a noncompliance issue and will require compliance. 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 from entering the canal or from contaminating the soil in the vicinity of the canal that could run off into the canal.
    - If any dewatering activities are necessary, prevent discharge of turbid water to the canal by filtering the discharge first using a filter bag, diverting the water to a settling tank, and/or treating the water in a manner to ensure compliance with water quality requirements prior to discharging water back to the canal.
    - Clean up all spills immediately according to the spill prevention and countermeasure plan.
    - Provide areas located outside the canal for staging and storing equipment, materials, fuels, lubricants, solvents, and other possible contaminants.

  - Remove vehicles from the canal every day and before refueling and lubricating and ensure that areas where equipment is refueled or lubricated is storm-proofed to prevent contaminants from being discharged to the canal. Pump contaminated water to a holding tank for proper disposal.
  - Avoid operation of vehicles and equipment in flowing water.
  - Prohibit the following types of materials from being rinsed or washed into the streets, shoulder areas, or gutters: concrete; solvents and adhesives; thinners; paints; fuels; sawdust; dirt; gasoline; asphalt and concrete saw slurry; 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.
  - Discharge from dewatering operations, if needed, and runoff from disturbed areas will be made to conform to the waste discharge requirements 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 streets 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 15 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 re-vegetation 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.
- Revegetate the area adjacent to the canal where temporary impacts would occur during project construction.
- Limit disturbance to the canal bed to the maximum extent practicable.

Mitigation Measure BIO-2: Install Construction Barrier Fencing around the Construction Area to Protect Sensitive Biological Resources to Be Avoided

Consistent with Caltrans specifications, the County or its contractor will install orange construction barrier fencing to identify environmentally sensitive areas as one of the first orders of work. The area that would generally be required for construction, including staging and access, is shown in Figure 4. Portions of this area that are to be avoided during construction will be fenced off to avoid disturbance. Before construction, the construction contractor will work with the project engineer and a resource specialist to identify the locations for the barrier fencing and will place stakes around the sensitive resource sites to indicate these locations. The protected areas will be designated as environmentally sensitive areas and clearly identified on the construction plans. The fencing will be installed before construction activities are initiated, maintained throughout the construction period, and removed when construction is completed. Sensitive biological resources that occur adjacent to the construction area include special-status wildlife habitats as discussed below.

Mitigation Measure BIO-3: Conduct Environmental Awareness Training for Construction Employees

The County will retain a qualified biologist to develop and conduct environmental awareness training for construction employees on the importance of onsite biological resources, including mature trees to be retained; habitat for western pond turtle; potential nests of special-status birds including bald eagle, northern goshawk, California spotted owl, olive-sided flycatcher, and other migratory bird species including swallows; and roosting habitat for special-status bats. In addition, construction employees will be educated about invasive plant identification and the importance of controlling and preventing the spread of invasive plant infestations.

The environmental awareness program will be provided to all construction 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 personnel are added to the project, the contractor's superintendent 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 identifies all relevant permit conditions will be provided to each person.

Mitigation Measure BIO-4: Implement Protective Measures to Avoid or Minimize Potential Impacts on California Red-Legged Frog

The County will implement the following protective measures to avoid or reduce potential impacts on California red-legged frog in the construction area.

- The first order of work will be to have vegetation manually clipped to ground level and removed by hand. The vegetation removal will be conducted with the presence of a USFWS-approved biologist, who will monitor the area for the presence of California red-legged frog.
- Following manual removal of vegetation, the work are will be fenced with sediment fencing at the upstream and downstream limits of the project and away from the canal at least 100 feet. The fencing will be buried a minimum of 6 inches into the ground. The project limits will be flagged and/or signed to prevent encroachment of construction personnel and equipment into any sensitive areas during project work. Animal exclusion fencing will be checked once per week by a USFWS-approved biologist to identify weaknesses and all compromised portions will be repaired and/or replaced immediately. Animal exclusion fencing will be removed once the construction is completed or by October 15 of the construction year, whichever comes first.
- Within 24 hours prior to the onset of vegetation removal, a USFWS-approved biologist will survey the project area for California red-legged frogs.
- The County will submit the name and credentials of the project's biologist(s) to the USFWS for review and approval at least 15 days prior to the onset of construction activities.
- Staging areas as well as fueling and maintenance activities will be a minimum of 100 feet from riparian and aquatic habitats. The County will prepare a spill prevention and clean-up plan.
- The County will implement BMPs to protect water quality and control erosion.
- If a work site is to be temporarily dewatered by pumping, intakes will be completely screened with wire mesh not larger than 5 millimeters. Water will be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Ideally the sediment fencing will tie into the outfall of the dewatering system at the ends of the project area to prevent a gap in the exclusion.
- Upon completion of construction activities, any barriers to flow will be removed in a manner that would allow flow to resume with the least disturbance to substrate.

Western Pond Turtle

There is a CNDDB record for an occurrence of western pond turtle approximately 1 mile south of the study area. There is one additional record for western pond turtle that is approximately 7 miles southwest of the study area. (California Department of Fish and Wildlife 2013a.) When water is present, the EID canal provides suitable aquatic habitat for western pond turtle. The suitability of the habitat is somewhat diminished due to the lack of vegetative cover in the canal. The conifer forest in and adjacent to the study area also provides suitable nesting/upland habitat for western pond turtles.

The EID canal is shut down for maintenance between October 15 and December 15. Some standing water may be present at the time the canal is shut down depending on weather conditions and precipitation. Work within the EID canal could cause entrapment of western pond turtles, resulting

in injury or mortality of turtles. Because construction is proposed to begin toward the end of the egg-laying period for turtles (egg-laying period is between April and October), loss of eggs could occur but is not likely. Construction activities in adjacent woodland habitat could result in the injury or mortality of turtles or their eggs, if present during construction. Construction noise and/or activity could also disturb turtles or cause them to avoid the area. There would also be small loss (0.03 acre) of aquatic habitat.

Implementation of Mitigation Measures BIO-1 through BIO-3, above, and Mitigation Measure BIO-5, below, would reduce the potential for impacts on western pond turtle.

Mitigation Measure BIO-5: Conduct Preconstruction Survey for Western Pond Turtle and Monitor Initial Canal Work

To avoid potential injury or mortality of western pond turtle, the County or its contractor will retain a qualified wildlife biologist to conduct a preconstruction survey for this species within 24 hours of the start of construction activities. This survey can be conducted concurrent with the preconstruction survey for California red-legged frog. The biologist will survey the EID canal within the construction area and 300 feet upstream and downstream of the construction area for western pond turtle. If work in the canal does not start immediately, the biologist will return to the construction site immediately prior to the start of work in the canal to conduct another preconstruction survey. The biologist will remain on site until initial work in the canal is complete. If a western pond turtle becomes trapped during construction, the biologist will relocate the individual to suitable aquatic habitat upstream or downstream of the construction area. The biologist will have had their CDFW scientific collecting permit amended to include capture and relocation of western pond turtle. Because turtle eggs are buried and generally cannot be seen, a survey for eggs is not recommended. If turtle eggs are discovered during construction in the conifer forest area, the biologist will be contacted immediately and the eggs will be reburied.

For the remainder of construction, the biologist will remain on-call in case a western pond turtle or a nest within turtle eggs is discovered. The construction crew will be instructed to notify the crew foreman and/or the resident engineer who will contact the biologist if a western pond turtle is found dead or trapped within the construction area, or if a nest containing turtle eggs is found. Work in the area where the turtle is found dead or trapped, or where the eggs are found will stop until the biologist arrives and removes and relocates the turtle or eggs. The biologist will report their activities to the County and CDFW within one day of relocating or finding any dead western pond turtle or turtle eggs.

Bald Eagle

There are no CNDDB records for nesting or wintering bald eagles within 5 miles of the study area. The closest record for nesting bald eagles is approximately 12 miles northeast of the study area at Union Valley Reservoir (California Department of Fish and Wildlife 2013a). Focused surveys for bald eagles were not conducted and no bald eagles were observed during the field survey. Bald eagles could nest or perch in the study area; however, the potential for bald eagle to nest in the project area is considered low because of its proximity to human development, and distance from large water bodies with which their nesting habitat is commonly associated.

Construction activities would occur September to December, outside of the bald eagle nesting season (nesting season is February 1 through August 1). Because bald eagle is fully protected,

activities that result in loss of bald eagles are prohibited by the CFGC. The removal of 15 trees in the study area may reduce the amount of available nesting habitat for bald eagle; however they are unlikely to nest in or adjacent to the study area because of its proximity to human development and are more likely to nest closer to the South Fork American River or reservoirs in the project vicinity. Because the nesting season will be avoided, impacts to bald eagle are considered less-than-significant. No mitigation is required for this species.

Northern Goshawk

Surveys for northern goshawk were not conducted and no goshawks were incidentally observed during the site visit. There is one CNDDB record for a northern goshawk nest 9–10 miles northwest of the study area (California Department of Fish and Wildlife 2013a). The location of this nest is general, was active in 1980, and is presumed extant. The mixed conifer forest provides suitable nesting habitat for northern goshawk. Northern goshawks may perch or forage in/over the study area.

Construction activities would occur near the end or outside of the northern goshawk nesting season (nesting season is generally February 15 through September 15). If nests are still active at the time construction activities commence, disturbance of nesting northern goshawks could occur. Removal of nests or construction disturbance (noise and/or activity) during the breeding season could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. The removal of 15 trees in the study area may reduce the amount of available nesting habitat for northern goshawk (seven of the trees to be removed are more than 2 feet dbh).

While construction activities would likely occur after the typical nesting season, implementation of Mitigation Measures BIO-2, BIO-3, above, and BIO-6, below, would avoid or reduce the potential for impacts on northern goshawk.

Mitigation Measure BIO-6: 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 February 15). 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 February 15, the area where vegetation will be removed must be surveyed for nesting birds, as discussed below.

The County will retain a qualified wildlife biologist with knowledge of the relevant species to conduct nesting surveys before the start of construction. A minimum of two separate surveys will be conducted for migratory birds, including raptors. Surveys will include a search of all trees and shrubs that provide suitable nesting habitat in the project area. In addition, a 500 foot area around the project area will be surveyed for nesting raptors. If possible, the first survey should occur during the height of the breeding season (March 1 to June 1) and the final survey will occur within 1 week of the start of construction. 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.

California Spotted Owl

Surveys for California spotted owl were not conducted and no spotted owls were incidentally observed during the site visit. There are 12 spotted owl activity centers and more than 50 positive observations of spotted owl within 5 miles of the study area (California Department of Fish and Wildlife 2013b). There is a lower potential for California spotted owls to nest in the study area because of the number of residences in the surrounding area. California spotted owls may perch or forage in the study area.

Construction activities would occur toward the end of the California spotted owl nesting season (generally February 15 through October 1) and could result in the disturbance of nesting California spotted owls. Removal of nests or construction disturbance (noise and/or activity) during the breeding season could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. The removal of 15 trees in the study area may reduce the amount of available nesting habitat for California spotted owl (seven of the trees to be removed are more than 2 feet dbh).

Implementation of Mitigation Measures BIO-2, BIO-3, and BIO-6, above, would avoid or reduce the potential for impacts on California spotted owl.

Olive-Sided Flycatcher

Surveys for olive-sided flycatcher were not conducted and no olive-sided flycatchers were incidentally observed during the site visit. There are no CNDDB records for occurrences of olive-sided flycatchers within 5 miles of the study area; however suitable habitat is present within the study area. Olive-sided flycatchers could nest or forage in the conifer forest in the study area.

Construction activities would occur outside of the olive-sided flycatcher nesting season (generally May 1 through August 30) and would avoid impacts to nesting flycatchers. The removal of 15 trees in the study area may reduce the amount of available nesting habitat for olive-sided flycatcher. Because the nesting season will be avoided and the number of trees that will be removed is small, impacts to olive-sided flycatcher are considered less-than-significant. No mitigation is required for this species.

Special-Status Bats (Six Species)

There is one CNDDB record for an occurrence of fringed myotis approximately 5 miles from the study area and two records for occurrences of long-legged myotis approximately 6 and 10.5 miles from the study area. The records for the occurrences that are approximately 5 and 6 miles from the study area also indicate that pallid bat was also captured in this location. There are two records for occurrences of silver-haired bat within 1–2 miles of the study area. There are two additional silver-haired bat occurrences that are 10–11 miles from the study area. There are no CNDDB records for occurrences of western red bat or hoary bat within 5 or 10 miles of the study area. (California Department of Fish and Wildlife 2013a.) Acoustic surveys for bats were not conducted. The Blair

Road Bridge was examined for expansion joints and other crevices that provide day roosting habitat for bats, and no expansion joints or other crevices are present. No sign of bat use (i.e., guano, urine stains) of the bridge was observed; however, bats could use the bridge as an occasional night roost. Conifer forest trees in the study area provide suitable roosting habitat for bats.

Construction would occur at the end of or after the maternity season of bats (maternity season is April 1 through September 15). The proposed project would result in the loss of trees, which may provide suitable roosting habitat (cavities, crevices, furrowed bark, and foliage) for special-status bats (western red bat and pallid bat) and bats for which conservation actions are warranted (silver-haired bat, hoary bat, fringed myotis, and long-legged myotis) (Western Bat Working Group 2007). Although there are abundant trees in the surrounding area that bats may roost in, trees with suitable cavities or crevices for bats are less common. Tree removal/trimming and noise or other construction activities could result in the injury, mortality, or disturbance of roosting bats, if present in cavities, crevices, furrowed bark, or foliage of trees. Because the bridge does not have suitable crevices for bats, replacement of the bridge with a double barrel culvert would not result in injury or mortality of roosting bats or the removal of day roosting habitat. Replacement of the bridge, however, would result in the loss of temporary night roosting habitat.

Implementation of Mitigation Measures BIO-2, BIO-3, BIO-6, discussed above, and BIO-7, below, would avoid or reduce the potential for impacts on special-status bats.

Mitigation Measure BIO-7: Identify Suitable Roosting Habitat for Bats and Implement Avoidance and Protective Measures

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.). Mature broadleaf trees should be considered potential habitat for solitary foliage–roosting bat species. 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 may 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, if feasible, which corresponds to a time period when bats have not yet entered torpor or would be caring for nonvolant young. If tree removal cannot be conducting during this period, then qualified biologists will examine trees to be removed for suitable bat roosting habitat, as described above.
- Trees will be removed in pieces rather than felling an entire tree.
- 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.

- 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/removal that occurs before September 16 or after October 31. If possible, tree trimming/removal should occur in the late afternoon or evening when it is closer to the time that bats would normally arouse. Prior to removal/trimming, each tree will be shaken gently and several minutes should pass before felling trees or limbs to allow bats time to arouse and leave the tree. The biologists should search downed vegetation for dead and injured bats. If dead or injured bats that are species of special concern are found to be present, tree removal and trimming will cease, and the biologist will report the situation to CDFW. The biologist will then prepare a biological monitoring report, which will be provided to the project lead and CDFW. This report will outline procedures that adequately protect the species during construction to the satisfaction of CDFW, at which time trimming and tree removal can resume.

Fisher

Surveys for fisher were not conducted and no fishers were incidentally observed during the site visit. Fisher is considered rare or absent in El Dorado County (California Department of Forestry and Fire Protection 2009). There are no CNDDB records for occurrences of fisher within 5 miles of the study area; however suitable habitat is present within and near the study area. Fishers may forage, rest, or move through the study area but are unlikely den in the study area because of its proximity to the road and residences.

Construction activities would occur outside of the natal and maternal denning period of fisher (natal and denning period is March 1—July 31). Additionally, construction activities would occur during the day when fishers are mostly inactive and are unlikely to impact their foraging activities or movement through the project area. The removal of 15 trees in the study area may reduce the amount of available conifer forest habitat for fishers. Because the natal and denning period will be avoided and the loss of conifer forest is small, impacts to fisher are considered less-than-significant. No mitigation is required for this species.

Natural Plant Communities

The introduction and spread of invasive plants can adversely affect natural plant communities by displacing native plant species that provide shelter and forage for wildlife species. Roads, highways, and related construction projects are some of the principal dispersal pathways for invasive plant species. Table 3.2.4-1 identifies the invasive plant species located in the study area. These species occur at the edges of Blair Road and scattered in the mixed conifer forest understory. The infestation of the study area by these species is generally limited, occurring primarily as scattered individuals.

Table 3.2.4-1. Invasive Plant Species Identified in the Study Area

Species	CDFA	Cal-IPC
Ripgut brome (*Bromus diandrus*)	–	Moderate
Bull thistle (*Cirsium vulgare*)	C	Moderate
Hedgehog dogtail (*Cynosurus echinatus*)	–	Moderate
Orchard grass (*Dactylis glomerata*)	–	Limited
English ivy (*Hedera helix*)	–	High
Velvet grass (*Holcus lanatus*)	–	Moderate
Klamathweed (*Hypericum perforatum* ssp. *perforatum*)	C	Moderate
Ox-eye daisy (*Leucanthemum vulgare*)	–	Moderate

Species	CDFA	Cal-IPC
Narrow-leaved plantain (*Plantago lanceolata*)	–	Limited
Wild radish (*Raphanus sativus*)	–	Limited
Himalayan blackberry (*Rubus armeniacus* [*discolor*])	–	High
Curly dock (*Rumex crispus*)	–	Limited
Hedgeparsley (*Torilis arvensis*)	–	Moderate
Woolly mullein (*Verbascum thapsus*)	–	Limited
Bigleaf periwinkle (*Vinca major*)	–	Moderate

Notes: The California Department of Food and Agriculture (CDFA) and California Invasive Plant Council (Cal-IPC) lists assign ratings that reflect the CDFA and Cal-IPC views of the statewide importance of the pest, likelihood that eradication or control efforts would be successful, and present distribution of the pest in the state. These ratings are guidelines that indicate the most appropriate action to take against a pest under general circumstances. The Cal-IPC species list is more inclusive than the CDFA list.

The **CDFA categories** indicated in the table are defined as follows:

C: State-endorsed holding action and eradication only when found in a nursery; action to retard spread outside nurseries at the discretion of the county agricultural commissioner.

The **Cal-IPC categories** indicated in the table are defined as follows:

High: Species with severe ecological impacts, high rates of dispersal and establishment, and usually widely distributed.

Moderate: Species with substantial and apparent ecological impacts, moderate to high rates of dispersal, establishment dependent on disturbance, and limited to widespread distribution.

Limited: Species with minor ecological impacts, low to moderate rates of invasion, limited distribution, and locally persistent and problematic.

Implementation of Mitigation Measures BIO-2 and BIO-3, described above, and Mitigation Measure BIO-8, described below, would avoid and minimize the introduction and spread of invasive plants during construction.

Mitigation Measure BIO-8: Avoid the Introduction and Spread of Invasive Plants

The 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;
- Minimize surface disturbance to the greatest extent feasible to complete the work; and
- Use weed-free imported erosion-control materials (or rice straw in upland areas).

b. Potentially Significant Unless Mitigation is Incorporated

The study area supports one natural community of special concern, the EID canal (described above). The Project footprint for the new culvert would result in 0.04 acre of fill in the EID canal in the study area. This loss of open canal is minimal, would not affect its functions, and would not be considered an adverse impact.

Temporary or indirect effects on the canal due to construction activities, including use of equipment in and around the canal and stockpiling of soil would be prevented by implementation of Mitigation Measure BIO-1.

Mitigation Measure BIO-1: Protect Water Quality and Prevent Erosion and Sedimentation in the EID Canal

Please refer to the discussion of BIO-1 under item "a."

c. No Impact

No federally-protected wetlands are located in the project area.

d. Potentially Significant Unless Mitigation is Incorporated

Suitable nesting habitat for migratory birds is present within the mixed conifer forest and landscaped areas in and adjacent to the study area. No swallow mud nests or remnants of mud nests were observed on the Blair Road Bridge during the site visit. No nests were noticed in trees or shrubs in or adjacent to the study area during the field survey, but a focused nest survey was not conducted.

Construction activities would start toward the end of the nesting season of migratory birds (nesting season is generally February 16 to September 30) and could result in the possible loss of nesting birds. Removal of nests or construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. Such losses would violate the MBTA and could affect the local population, which would be a significant impact. Because construction activities and the removal of the bridge would occur after the conclusion of the swallow nesting period (generally April through August), impacts to nesting swallows are not anticipated. The removal of 15 trees in the study area may reduce the amount of available nesting habitat for migratory birds; however because the number of trees to be removed is small and there are abundant trees in the project vicinity, the loss of potential nest trees would not be a significant impact. Implementation of Mitigation Measures BIO-2, BIO-3, and BIO-6, would avoid or reduce potential impacts on nesting migratory birds.

Mitigation Measure BIO-2: Install Construction Barrier Fencing around the Construction Area to Protect Sensitive Biological Resources to Be Avoided

Please refer to the discussion of BIO-2, under item “a.”

Mitigation Measure BIO-3: Conduct Environmental Awareness Training for Construction Employees

Please refer to the discussion of BIO-3, under item “a.”

Mitigation Measure BIO-6: Remove Vegetation during the Nonbreeding Season and Conduct Preconstruction Surveys for Nesting Migratory Birds

Please refer to the discussion of BIO-6, under item “a.”

e. No Impact

There is no specific regulatory protection for the non-oak woodland, non-riparian trees located in the project area. The Project would not conflict with any local ordinances or policies related to biological resources.

f. No Impact

The project is not located in an area covered by a habitat or natural community conservation plan. El Dorado County is currently preparing an Integrated Natural Resources Management Plan to identify important habitats in the county and establish a program for the management and preservation of

these areas (El Dorado County 2004a). The plan is still in progress and is not anticipated to be adopted until after this Project has been completed.

3.2.5 Cultural Resources

V. CULTURAL RESOURCES—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation is Incorporated*	*Less than Significant Impact*	*No Impact*
a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☐	☐	☐	☒
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☐	☒	☐
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐
d. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

Environmental Setting

The Blair Road Bridge is located approximately 0.7 mile north of the Pony Express Trail in Pollock Pines, in unincorporated El Dorado County. It is situated in the western foothills of the Sierra Nevada range. The bridge spans a segment of the EID Canal that contains water for the majority of the year, except during the months of October through December when the EID stops the flows.

The project area is underlain primarily by Mesozoic granitic rock, small areas of unidentified Paleozoic rocks, and minor amounts of the Mio-Pliocene Mehrten Formation consisting of andesitic conglomerate, sandstone, and breccia. These formations are almost completely obscured by recent soil formation (ICF International 2013b).

Potential Environmental Effects

a. No Impact

Background research was conducted to identify any known cultural resources within or adjacent to the project area. Archaeologists conducted an intensive pedestrian survey of the Area of Potential Effect (APE) in December of 2012. During the intensive pedestrian survey, one archaeological resource (a concrete pump house foundation) was found in the APE. However, this resource is categorized as Property Type 1 ("foundations and mapped locations of buildings or structures more than 50 years old with few or no associated artifacts or ecofacts, and with no potential for subsurface archaeological deposits") and is therefore exempt from evaluation. These findings are documented in the Archaeological Survey Report (ASR) (ICF International 2013b).

An architectural historian also surveyed and recorded built-environment cultural resources during December of 2012 and documented in the Historical Resources Evaluation Report (HRER) (ICF International 2013c). The segment of the EID canal was formally evaluated under National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR) criteria, but was found not eligible for listing in the NRHP or the CRHR. The Blair Road Bridge (Bridge 25C0077) was previously determined ineligible for listing in the NRHP and the CRHR by Caltrans as a result of the state-wide historic bridge inventory (ICF International 2013c).

b. Less than Significant

No archaeological resources were found in the APE, except for the pump house foundation that is exempt from evaluation. The archaeological sensitivity assessment indicates the area is not sensitive for buried archeological resources (ICF International 2013b). However, because ground disturbance is required, there is still a chance for accidental archaeological discoveries. The project would implement County policies and state laws to protect any buried archeological resources discovered during project construction. As described in the *Project Description*, the contractor would 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.

c. Less than Significant

According to the El Dorado County General Plan EIR, paleontological resources in the county have been found in the Mehrten formation, as well as in Pleistocene channel deposits and limestone caves in the southern portion of the county. No Pleistocene channel deposits and limestone caves occur in the project area. However, the Mehrten Formation is a minor component of the underlying rock formations. The Mehrten Formation is considered to have a high sensitivity for vertebrate fossils (El Dorado County 2004b). There are no other unique geological features in the project area.

As described in the *Project Description*, the contractor would be required to stop all work in the vicinity of discovered resources and have a qualified paleontologist evaluate the nature and significance of the find prior to resuming any work in the area of the discovery.

d. Less than Significant

No known cemeteries or burials were found in the project area (ICF International 2013b and 2013c). If human remains are discovered during project construction, Transportation would be notified and compliance would be required with the provisions of the California Health and Safety Code 7050.5 and the Public Resources Code 5097.94 et seq.

3.2.6 Geology and Soils

VI. GEOLOGY AND SOILS—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation is Incorporated*	*Less than Significant Impact*	*No Impact*
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii. Strong seismic ground shaking?	☐	☐	☐	☒
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv. Landslides?	☐	☐	☐	☒
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c. Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☐	☒
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

Environmental Setting

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

The southwestern foothills of El Dorado County are composed of rocks of the Mariposa Formation that include amphibolite, serpentine, and pyroxenite. The northwestern areas of the county consist of the Calaveras Formation, which includes metamorphic rock such as chert, slate, quartzite, and mica schist. The higher peaks in the County consist primarily of igneous and metamorphic rocks with granite intrusions, a main soil parent material at the higher elevations (El Dorado County 2004a).

Project Area Geology: The project area is underlain by three geologic formations. Dominant among the three are the Mesozoic (250-65 million years ago) granitic rocks. This formation represents the Sierra Nevada batholith. Small areas of unidentified, possibly Paleozoic (542-251 million years ago) rocks are situated elsewhere in the project area. Finally, minor amounts of andesitic conglomerate, sandstone, and breccia of the Mio-Pliocene (23.0-2.6 million years ago) Mehrten Formation are located in the project area (ICF International 2013b). These formations are almost completely obscured by more recent soil formation.

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

Fault Systems: Earthquakes are associated with the fault systems in a particular area. The distribution of known faults in El Dorado County is concentrated in the western portion of the county, with several isolated faults in the central county area and the Lake Tahoe Basin. Fault systems mapped in western El Dorado County include the West Bear Mountains Fault; the East Bear Mountains Fault; the Maidu Fault Zone; the El Dorado Fault; the Melones Fault Zone of the Clark, Gillis Hill Fault; and the Calaveras–Shoo Fly Thrust. The project area is not located near one of these mapped faults (El Dorado County 2004b). No portion of the county is located within an Alquist-Priolo Earthquake Fault Zone (El Dorado County 2004a).

Soils: Soils on the west slope of El Dorado County consist of well-drained silt and gravelly loams divided into two physiographic regions, the Lower and Middle Foothills and the Mountainous Uplands. There are a total of eight soil associations in western El Dorado County. There is one mapped soil unit on the project site are Cohasset loam, 15 to 30 percent slopes. The Cohasset unit includes well-drained soils that occur on ridges and are derived from volcanic parent material (Natural Resources Conservation Service 2013).

Potential Environmental Effects

a. No Impact

No portion of the county is located within an Alquist-Priolo Earthquake Fault Zone. The project area is also considered to have relatively low potential for seismic activity and is not located in a seismic hazard zone. The Project is not located on soils subject to liquefaction and all soils on site will be stabilized after construction. No impacts are anticipated.

b. Less than Significant

The Project would require grading in the immediate area surrounding the bridge including both sides of the bridge with 6-foot cuts the uphill (south) side of the existing roadway where structure widening would occur. Grading would occur in an area less than 0.5 acre. Small construction projects, that is, those that disturb less than 1 acre of total land area and that are not part of a larger common plan of development, are exempted from NPDES Permit requirements. Following construction, all disturbed areas not paved would be revegetated consistent with measures identified in the contract special provisions to ensure long-term soil stabilization.

c. No Impact

The project area is underlain primarily by Mesozoic granitic rock with small areas of unidentified Paleozoic rocks and minor amounts of andesitic conglomerate, sandstone, and breccia of the Mio-Pliocene Mehrten Formation (Wagner et al. 1981). Soils in the project area have a low to moderate shrink-swell potential and are not susceptible to landslide, lateral spreading, subsidence, liquefaction, or collapse. There would be no impact.

d. No Impact

Soils in the project area have a low to moderate shrink-swell potential and are not defined as expansive in Table 18-1-B of the Uniform Building Code. Construction of the Project would comply with County building code standards. There would be no impact.

e. No Impact

The proposed Project is a surface transportation project, not a residential, commercial, or industrial development. Neither septic tanks nor alternative wastewater disposal systems are part of the Project.

3.2.7 Hazards and Hazardous Materials

VII. HAZARDS AND HAZARDOUS MATERIALS—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation is Incorporated*	*Less than Significant Impact*	*No Impact*
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c. Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒

VII. HAZARDS AND HAZARDOUS MATERIALS—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation is Incorporated*	*Less than Significant Impact*	*No Impact*
d. Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e. Be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f. Be located within the vicinity of a private airstrip and result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

Regulatory Setting

A material is considered hazardous if it appears on a list of hazardous materials prepared by a Federal, State, or local agency, or if it has characteristics defined as hazardous by such an agency. A hazardous material is defined in Title 22 of the California Code of Regulations (CCR) as follows:

> A substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed. (California Code of Regulations, Title 22, Section 66261.10)

Chemical and physical properties cause a substance to be considered hazardous. Such properties include toxicity, ignitability, corrosivity, and reactivity. CCR, Title 22, Sections 66261.20-66261.24 define the aforementioned properties. The release of hazardous materials into the environment could potentially contaminate soils, surface water, and groundwater supplies. Under Government Code Section 65962.5, the California Department of Toxic Substances Control (DTSC) maintains a list of hazardous substance sites. This list, referred to as the "Cortese List", includes CALSITE hazardous material sites, sites with leaking underground storage tanks, and landfills with evidence of groundwater contamination. In addition, the El Dorado County Community Development Agency Environmental Management Division (EMD) maintains records of toxic or hazardous material

incidents, and the Central Valley Regional Water Quality Control Board (RWQCB) keeps files on hazardous material sites.

Most hazardous materials regulation and enforcement in El Dorado County is overseen by the El Dorado County EMD, which refers large cases of hazardous materials contamination or violations to the RWQCB and the State DTSC. Other agencies, such as the El Dorado County AQMD and the Federal and State Occupational Safety and Health Administrations (OSHA), may also be involved when issues related to hazardous materials arise.

Environmental Setting

An Initial Site Assessment (ISA) was prepared for the Project to evaluate current and historical conditions of the project site to identify recognized environmental conditions within the site. A recognized environmental condition is defined as the presence of or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products even under conditions in compliance with laws.

The ISA concluded that there are no identified recognized environmental conditions. The rationale used for this opinion are the observations made during the site visit, the review of aerial photographs, and interviews with knowledgeable persons which corroborate the conclusion that the project site is currently a right-of-way, an existing bridge over an EID canal, and a parcel surrounding the project used as rural residential/forest property (Lauritzen 2012).

Potential Environmental Effects

a. Less than Significant

Small amounts of hazardous materials would be used during construction activities (i.e., equipment maintenance, fuel, solvents, roadway resurfacing and re-striping materials). Hazardous materials would only be used during construction of the Project, and any hazardous material uses would be required to comply with all applicable local, state, and federal standards associated with the handling and storage of hazardous materials. Use of hazardous materials in accordance with applicable standards ensures that any exposure of the public to hazard materials would have a less-than-significant impact.

b. Less than Significant

The proposed Project would result in a less-than-significant impact associated with the use and potential accidental release of hazardous materials during construction (see item “a,” above).

c. No Impact

The proposed Project is not located near an existing or proposed school. The nearest schools are Pinewood and Pollock Pines Elementary Schools, over 0.85 mile away to the east. As noted above, the Project would involve the short-term handling of hazardous materials during construction. Handling and storage of hazardous materials during construction would comply with all applicable local, state, and federal standards.

d. No Impact

No hazardous material sites occur in the project area (Lauritzen 2012).

e. No Impact

The Project is not located within an airport land use plan area or within two miles of a public or public use airport.

f. No Impact

The Project is also not located within the vicinity of a private airstrip.

g. Less than Significant

Blair Road would be closed within the limits of the project area for approximately three months during construction. During this period, traffic would be detoured to Forebay Road, a county road, for an approximately 5-mile detour. The County will prepare a Traffic Control/Detour Plan in conjunction with the engineering plans. Project construction activities would be coordinated with local law enforcement and emergency services providers.

h. No Impact

The Project would not result in a new or increased exposure of people or structures to a significant risk of loss, injury, or death involving wildland fires.

3.2.8 Hydrology and Water Quality

VIII. HYDROLOGY AND WATER QUALITY—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation is Incorporated*	*Less than Significant Impact*	*No Impact*
a. Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation onsite or offsite?	☐	☐	☒	☐
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite?	☐	☐	☒	☐

VIII. HYDROLOGY AND WATER QUALITY—Would the project:		*Potentially Significant Impact*	*Potentially Significant Unless Mitigation is Incorporated*	*Less than Significant Impact*	*No Impact*
e.	Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f.	Otherwise substantially degrade water quality?	☐	☐	☐	☒
g.	Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h.	Place within a 100-year flood hazard area structures that would impede or redirect floodflows?	☐	☐	☐	☒
i.	Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j.	Contribute to inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Environmental Setting

The study area is located within the South Fork American Watershed (hydrologic unit code 18020129) (U.S. Environmental Protection Agency 2013). The EID Canal is the only drainage feature in the area. Seasonal surface runoff sheet flows to lower elevations through the project site. The project site is not mapped within the 100-year floodplain and is not within a dam failure inundation zone (El Dorado County 2004a).

Potential Environmental Effects

a. Less than Significant

The bridge replacement would disturb less than 0.5 acre of ground and is exempted from NPDES Permit requirements. However, the County will require the contractor to prepare, submit and implement a Water Pollution Control Program. Following construction, all disturbed areas not paved would be mitigated as described in Section 3.2.4, *Biological Resources*, to ensure long-term soil stabilization and no violations of water quality standards.

b. No Impact

The Project would not involve any withdrawals from an aquifer or groundwater table.

c. Less than Significant

The Project would not alter the course of the EID canal or substantially alter drainage patterns on the project site. The EID canal would retain its approximate function and capacity at the completion of the Project. The banks of the canal will be revegetated as described in Section 3.2.4, *Biological Resources*.

d. Less than Significant

The Project would not alter the course of the EID canal or substantially alter drainage patterns within the Project area that would cause flooding on- or off-site.

e. Less than Significant

The replacement of Bridge 25C0077 would not provide additional sources of runoff compared with the existing bridge. The small amount of increase in impervious surface area resulting from construction of the new bridge and approaches is not expected to contribute to a substantial increase in water runoff from the site.

f. No Impact

No additional impacts other than those discussed above are anticipated.

g. No Impact

The Project is a roadway improvement project, and no housing development is associated with the Project.

h. No Impact

The project is not located within a 100-year flood hazard area.

i. No Impact

The Project is not located within a flood hazard area or a dam failure inundation zone and would not change the level of risk associated with flood or inundation hazards.

j. No Impact

The Project is not in an area subject to seiche or tsunami.

3.2.9 Land Use and Planning

IX. LAND USE AND PLANNING—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation is Incorporated*	*Less than Significant Impact*	*No Impact*
a. Physically divide an established community?	☐	☐	☐	☒
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Environmental Setting

The 2004 El Dorado County General Plan is the relevant land use plan for the project area. Land uses in the vicinity of the bridge include low density residential (one dwelling unit per 5 acres) (El Dorado County 2009).

Potential Environmental Effects

a. No Impact

The existing Blair Road Bridge would be replaced on the same alignment and would not physically divide an established community.

b. No Impact

The project would not conflict with the goals, objectives or policies intended to mitigate environmental impacts adopted in the 2004 El Dorado County General Plan. Replacing the Blair Road Bridge is an identified improvement (project number 77119) in the El Dorado County Community Development Agency, Transportation Division's 2013 Adopted Capital Improvement Program (El Dorado County 2013).

c. No Impact

The project is not located in an area covered by a habitat or natural community conservation plan. However, El Dorado County is currently preparing an Integrated Natural Resources Management Plan to identify important habitats in the county and establish a program for the management and preservation of these areas (El Dorado County 2004a). The plan is still in progress and is not anticipated to be adopted until after this Project has been completed.

3.2.10 Mineral Resources

X. MINERAL RESOURCES—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation is Incorporated*	*Less than Significant Impact*	*No Impact*
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

Environmental Setting

Important mineral resources in El Dorado County include metallic (e.g., gold, silver, copper, etc.) and non-metallic (e.g., building stone, limestone, slate, etc.) mineral deposits. The most important extractive mineral resources are metallic mineral deposits, especially gold. The majority of the important mineral resources are concentrated in the western third of the county near Placerville (El Dorado County 2003). No important mineral resources are located in the vicinity of the Blair Road Bridge and no mining activities occur in the immediate area around the proposed project.

Potential Environmental Effects

a. No Impact

The Blair Road Bridge is not located in an important mineral resource area designated by the state and bridge replacement would not affect the availability of these resources to residents.

b. No Impact

The proposed Project is not located in an important mineral resource area delineated in the El Dorado County General Plan (2004a). Replacing the bridge would not affect the availability of the important mineral resources in the area.

3.2.11 Noise

XI. NOISE—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation is Incorporated*	*Less than Significant Impact*	*No Impact*
a. Expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?	☐	☒	☐	☐
b. Expose persons to or generate excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c. Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
d. Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
e. Be located within an airport land use plan area, or, where such a plan has not been adopted, within two miles of a public airport or public use airport and expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f. Be located in the vicinity of a private airstrip and expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Environmental Setting

Noise is commonly defined as unwanted sound that annoys or disturbs people and potentially causes an adverse psychological or physiological effect on human health. Because noise is an environmental pollutant that can interfere with human activities, evaluation of noise is necessary when considering the environmental impacts of a proposed project.

Sound is mechanical energy (vibration) transmitted by pressure waves over a medium such as air or water, and noise is generally defined as unwanted sound that annoys or disturbs people. Sound is characterized by various parameters that include the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). In particular, the sound pressure level is the most common descriptor used to characterize the loudness of an ambient (existing) sound level. Although the decibel (dB) scale, a logarithmic scale, is used to quantify sound intensity, it does not accurately describe how sound intensity is perceived by human hearing. The human ear is not equally sensitive to all frequencies in the entire spectrum, so noise

measurements are weighted more heavily for frequencies to which humans are sensitive in a process called "A-weighting," written as "dBA" and referred to as "A-weighted decibels".

Different types of measurements are used to characterize the time-varying nature of sound. These measurements include the equivalent sound level (L_{eq}), the minimum and maximum sound levels (L_{min} and L_{max}), percentile-exceeded sound levels (such as L_{10}, L_{20}), the day-night sound level (L_{dn}), and the community noise equivalent level (CNEL). L_{dn} and CNEL values differ by less than 1 dB. As a matter of practice, L_{dn} and CNEL values are considered to be equivalent and are treated as such in this assessment.

Operation of heavy construction equipment, particularly pile driving and other impacts devices such as pavement breakers create also seismic waves that radiate along the surface of the earth and downward into the earth. These surface waves can be felt as ground vibration. Perceptible ground-borne vibration is generally limited to areas within a few hundred feet of construction activities. As seismic waves travel outward from a vibration source, they excite the particles of rock and soil through which they pass and cause them to oscillate. The actual distance that these particles move is usually only a few ten-thousandths to a few thousandths of an inch. The rate or velocity (in inches per second) at which these particles move is the commonly accepted descriptor of the vibration amplitude, referred to as the peak particle velocity (PPV).

The project-site is predominantly rural with traffic on State Route 50 representing the primary source of noise in the area. Sensitive noise land uses in the immediate vicinity of the project include single family homes located approximately 140 feet to the south of the construction area. There are no hospitals, schools or outdoor recreational spaces in the vicinity.

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

Policy 6.5.1.11

The standards outlined in Tables 6-3, 6-4, and 6-5 shall apply to those activities associated with actual construction of a project as long as such construction occurs between the hours of 7 a.m. and 7 p.m., Monday through Friday, and 8 a.m. and 5 p.m. on weekends, and on federally-recognized holidays. Exceptions are allowed if it can be shown that construction beyond these times is necessary to alleviate traffic congestion and safety hazards.

The noise standards outlined in General Plan Table 6-4 are most applicable to the project because it is located in a predominantly rural area. The standards outlined in General Plan Table 6-4 are summarized in Table 3.2.11-1.

Table 3.2.11-1. Maximum Allowable Noise Exposure for Construction Noise in Rural Centers (General Plan Table 6-4)

		Noise Level (dB)	
Land Use Designation	Time Period	L_{eq}	L_{max}
All Residential (MFR, HDR, MDR)	7 am–7 pm	55	75
	7 pm–10 pm	50	65
	10 pm–7 am	40	55
Commercial, Recreation, and Public Facilities (C, TR, PF)	7 am–7 pm	65	75
	7 pm–7 am	60	70
Industrial (I)	Any Time	70	80
Open Space (OS)	7 am–7 pm	55	75
	7 pm–7 am	50	65

The El Dorado County General Plan also outlines maximum noise exposure limits for transportation noise sources. However, because the project would not result in an increase of the number of vehicles passing through the roadway corridor or change the alignment of the roadway, operational traffic noise levels are not expected to change as a result of the project. There would therefore be no operational noise impacts associated with the project.

Potential Environmental Effects

a. Potentially Significant Unless Mitigation Is Incorporated

Table 3.2.11-2 summarizes noise levels produced by construction equipment that is necessary for project construction. Individual construction equipment is expected to generate maximum noise levels ranging from 74 to 82 dBA at a distance of 50 feet. Table 3.2.11-2 shows L_{max} sound levels along with the typical acoustical use factors. The acoustical use factor is the percentage of time each piece of construction equipment is assumed to be operating at full power (i.e., its noisiest condition) during construction operation and is used to estimate L_{eq} values from L_{max} values. For example the L_{eq} value for a piece of equipment that operates at full power 50% of the time (acoustical use factor of 50) is 3 dB less than the L_{max} value.

Table 3.2.11-2. Construction Equipment Noise (dBA)

Equipment	Maximum Noise Level at 50 Feet (dBA)	Acoustical Use Factor (%)	L_{eq} at 50 Feet (dBA)
Excavator	81	40	77
Dump Truck	76	40	72
Dozer	82	40	78
Backhoe	78	40	74
Water Truck	74	40	70
Roller	80	20	73

Source: Federal Highway Administration 2006.

Construction would require five phases in October 2016. A reasonable worst case cumulative construction noise level assumes that all pieces of equipment during each phase would operate concurrently. The cumulative sound levels for these phases at 50 feet are summarized in Table

3.2.11-3. Sound levels that may be observed at the closest sensitive receptors (e.g., 140 feet) are also presented in Table 3.2.11-3 and were calculated based on point source attenuation, which is 6 dBA reduction per doubling distance. All construction activities would occur between 7am and 7pm, Monday through Friday.

Table 3.2.11-3. Construction Noise Levels at 50 and 140 Feet from the Construction Fenceline (dBA)

	50 Feet		140 Feet[a]	
Phase	L_{max}	L_{eq}	L_{max}	L_{eq}
1. Demolition	82	78	73	69
2. Grubbing/Land Clearing	85	81	76	72
3. Grading/Excavation	85	81	76	72
4. Drainage/Utilities	83	79	74	70
5. Paving	81	74	72	65

[a] Single family residences.

The results in Table 3.2.11-3 indicate that construction activity could exceed the applicable daytime noise standards of 55 dBA-L_{eq} and 75 dBA-L_{max} at nearby residences. Accordingly, implementation of Mitigation Measures NOI-1 and NOI-2 are required to reduce construction-related noise to levels outlined in the El Dorado County General Plan, Policy 6.5.1.11.

Mitigation Measure NOI-1: Employ Noise-Reducing Construction Practices

The construction 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. These standards limit construction noise as follows:

		Noise Level (dB)	
Land Use Designation	Time Period	L_{eq}	L_{max}
All Residential (MFR, HDR, MDR)	7 am–7 pm	55	75
	7 pm–10 pm	50	65
	10 pm–7 am	40	55
Commercial, Recreation, and Public Facilities (C, TR, PF)	7 am–7 pm	65	75
	7 pm–7 am	60	70
Industrial (I)	Any Time	70	80
Open Space (OS)	7 am–7 pm	55	75
	7 pm–7 am	50	65

Measures that can be used to limit noise include but are not limited to

- prohibiting noise-generating construction activity between the hours of 7:00 p.m. and 7:00 a.m.
- locating equipment as far a practical 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;

- prohibiting gasoline or diesel engines from having unmuffled exhaust; and
- selecting haul routes that affect the fewest number of people.

Mitigation Measure NOI-2: Disseminate Essential Information to Residences and Implement a Complaint/Response Tracking Program

Before construction begins, Transportation or the construction contractor shall notify residences within 500 feet of the construction areas of the construction schedule in writing. The construction contractor will designate a noise disturbance coordinator who will be responsible for responding to complaints regarding construction noise during the full term of construction. The coordinator will determine the cause of the complaint and will ensure that reasonable measures are implemented to correct the problem. A contact telephone number for the noise disturbance coordinator will be conspicuously posted on construction site fences and will be included in the written notification of the construction schedule sent to nearby residents. The noise disturbance coordinator shall submit to El Dorado County a weekly summary of any noise complaints that have been received. The summary shall include, but is not limited to, the name of the complainant and their location, the nature of their complaint, and the action being taken to address the complaint.

b. Less than Significant

Project construction may result in the periodic, temporary generation of groundborne vibration. However, based on the anticipated equipment inventory (see Table 3.2.11-2), it is unlikely that construction will require pile driving and other impacts devices capable of creating strong groundborne vibration. Moreover, given that construction would be temporary and periodic, potential vibration impacts would be less than significant.

c. Less than Significant

Because the Project would not change the alignment of the roadway or its traffic carrying capacity, the Project would not contribute to a substantial permanent increase in the ambient noise level in the project vicinity. There would be no impact.

d. Potentially Significant Unless Mitigation is Incorporated

The discussion of construction noise above indicates that construction activity will result in a temporary increase in noise that could exceed applicable daytime noise standards. Implementation of Mitigation Measures NOI-1 and NOI-2 are required to reduce construction-related noise to levels outlined in the El Dorado County General Plan, Policy 6.5.1.11.

Mitigation Measure NOI-1: Employ Noise-Reducing Construction Practices

Please refer to the discussion of NO1-1 under item “a.”

Mitigation Measure NOI-2: Disseminate Essential Information to Residences and Implement a Complaint/Response Tracking Program

Please refer to the discussion of NO1-2 under item “a.”

e. No Impact

The Project is not located within an airport land use plan area or within two miles of a public or public use airport.

f. No Impact.

The Project is not located within the vicinity of a private airstrip.

3.2.12 Population and Housing

XII. POPULATION AND HOUSING—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation is Incorporated*	*Less than Significant Impact*	*No Impact*
a. Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☐	☒
b. Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c. Displace a substantial number of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Environmental Setting

The Blair Road Bridge is located in a rural residential area with single family homes located south of the proposed project.

Potential Environmental Effects

a. No Impact

The project proposes replacing the existing Blair Road Bridge on essentially the same alignment. The project proposes to replace and widen the bridge over the EID Canal from one lane to two lanes. However, the project would not expand the existing roadway capacity or extend new infrastructure that could induce population growth, either directly or indirectly.

b. No Impact

Replacing the existing Blair Road Bridge would not displace any homes.

c. No Impact

The proposed project would not result in the displacement of people.

3.2.13 Public Services

XIII. PUBLIC SERVICES—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation is Incorporated*	*Less than Significant Impact*	*No Impact*
a. 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?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

Environmental Setting

Fire protection and emergency services in the project area are provided by the El Dorado Fire Protection District. Law enforcement services are provided by the El Dorado County Sheriff's Office (El Dorado County 2003). Public facilities including roadways in the vicinity of the project are maintained by El Dorado County.

Potential Environmental Effects

a. Less than Significant

The proposed Project would not result in a population increase that would require new government facilities or lead to the physical alteration of existing facilities, including fire and police protection, schools and parks. During construction, traffic would be detoured to Forebay Road, an approximately 5-mile detour, potentially increasing emergency response times. To minimize effects on fire and police services and ensure adequate access for emergency vehicles during construction, a Traffic Control/Detour Plan would be prepared and implemented, in coordination with fire and police agencies. Traffic would be detoured to Forebay Road (a 5-mile detour) for a period of three months.

3.2.14 Recreation

XIV. RECREATION—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation is Incorporated*	*Less than Significant Impact*	*No Impact*
a. 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?	☐	☐	☐	☒
b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

Environmental Setting

There are no parks or recreational facilities adjacent to or in the vicinity of the Blair Road Bridge.

Potential Environmental Effects

a. No Impact

The proposed Project would not increase the use of any existing parks or recreational facilities that could lead to physical deterioration of the facilities.

b. No Impact

The proposed Project does not include the construction or expansion of recreational facilities that could result in adverse environmental impacts.

3.2.15 Transportation/Traffic

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

Environmental Setting

Blair Road is designated a Local Road. Local Roads are described in the El Dorado County General Plan Transportation and Circulation Element as providing service to adjacent land uses (El Dorado County 2004a).

Potential Environmental Effects

a. Less than Significant

Replacement of Bridge 25C0077 on Blair Road would not change the amount of traffic on the roadway because it is not a new development or growth-inducing project. The bridge would be widened from one to two lanes over the EID Canal, but the number of through lanes on Blair Road would remain the same. Temporary closure of Blair Road within the limits of the project area could result in a temporary increase in traffic along the detour route including Forebay Road and Pony

Express Trail. A Traffic Control/Detour Plan would be prepared and implemented to ensure adequate access.

b. No Impact

Bridge replacement would not change the amount of traffic on Blair Road.

c. No Impact

The Project would not result in a change in air traffic patterns.

d. No Impact

The Project is intended to correct the existing deficiencies of the bridge by widening it to two lanes with shoulders and improving the horizontal alignment of Blair Road. The Project does not include design features such as sharp curves, dangerous intersections, or turning radii that would increase hazards. Because uses of the roadway and surrounding areas would not change, the Project would not result in a use incompatibility.

e. Less than Significant

A Traffic Control/Detour Plan would be prepared and implemented, in coordination with the fire and police agencies, to ensure adequate access for emergency vehicles during project construction. Following construction, access would be fully restored.

f. No Impact

Blair Road and other roadways within the project area are not designated for on-street parking. The Project would not result in an increase in demand for parking in the vicinity of the project.

g. No Impact

Blair Road is not a designated bike route nor is it proposed as a bike route (El Dorado County Transportation Commission 2010).

3.2.16 Utilities

XVI. UTILITIES AND SERVICE SYSTEMS—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation is Incorporated*	*Less than Significant Impact*	*No Impact*
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒

XVI. UTILITIES AND SERVICE SYSTEMS—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation is Incorporated*	*Less than Significant Impact*	*No Impact*
c. 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?	☐	☐	☐	☒
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed?	☐	☐	☐	☒
e. Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g. Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

Environmental Setting

The only utility in the project area is an underground AT&T communication line. Seasonal surface runoff sheet flows to lower elevations through the project site.

Potential Environmental Effects

a. No Impact

The proposed Project would not generate wastewater that would exceed the Central Valley Regional Water Quality Control Board wastewater treatment requirements. There would be no impact.

b. No Impact

The proposed Project would not increase the demand on existing water or wastewater treatment facilities. There would be no impact.

c. No Impact

Bridge replacement would not affect the existing storm drainage system in the vicinity of the project. Storm water would continue to sheet flow to lower elevations.

d. No Impact

The proposed Project would not require water service.

e. No Impact

The proposed Project would not generate wastewater.

f. No Impact

Construction debris from demolition of the existing bridge would be transported offsite and disposed of at a permitted landfill site. The amount of solid waste generated by the project would not be great enough that it would reduce the capacity of a permitted landfill. There would be no impact.

g. No Impact

Solid waste generated by the proposed Project would be disposed of at a permitted landfill in compliance with federal, state, and local regulations. No impact would occur.

3.2.17 Mandatory Findings of Significance

XVII. MANDATORY FINDINGS OF SIGNIFICANCE (To be filled out by Lead Agency, if required)	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation is Incorporated*	*Less than Significant Impact*	*No Impact*
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b. Does the project have impacts that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☐	☒	☐
c. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

a. Potentially Significant Unless Mitigation is Incorporated

Through the use of Best Management Practices and the mitigation measures noted previously (Mitigation Measures BIO 1 through BIO-8, NOI-1 and NOI-2), the Project will not degrade the quality of the environment.

b. Less than Significant

The Project is consistent with the General Plan and would not result in individually limited but collectively significant impacts. Therefore, the project would not cause any additional environmental effects or significantly contribute to a cumulative impact.

c. Less than Significant

The Project would not result in substantial direct or indirect adverse effects from noise, either during project construction or operation, nor would it result in impacts to air quality, water quality or utilities and public services. Therefore the Project would not cause substantial adverse effects on human beings.

4.1 Environmental Factors Potentially Affected

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

☐ Aesthetics	☐ Agricultural Resources	☐ Air Quality
☒ Biological Resources	☐ Cultural Resources	☐ Geology and Soils
☐ Hazards/Hazardous Materials	☐ Hydrology/Water Quality	☐ Land Use and Planning
☐ Mineral Resources	☒ Noise	☐ Population and Housing
☐ Public Services	☐ Recreation	☐ Transportation/Traffic
☐ Utilities and Service Systems	☒ Mandatory Findings of Significance	☐ None Identified

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the project-specific mitigation measures described in Section III have been added to the project. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the Project MAY have a "Potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Jamie Postlewait — Signature

March 18, 2014 — Date

Name and Title:

Section 5
Report Preparation and References

5.1 Report Preparation

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

Janel Gifford	Senior Civil Engineer
Chandra Ghimire	Associate Civil Engineer
Janet Postlewait	Principal Planner

ICF International

Sally Zeff	Project Director
Claire Bromund	Project Manager
Kimberly Stevens	Environmental Analyst
Jennifer Haire	Biologist
Lisa Webber	Botanist
Dave Buehler	Noise Specialist
Laura Yoon	Air Quality Specialist
Senh Saelee	Graphics

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Appendix A

Mitigation Monitoring and Reporting Plan

MITIGATION MONITORING AND REPORTING PLAN FOR THE BLAIR ROAD AT EID CANAL—BRIDGE REPLACEMENT (BRIDGE NO. 25C0077)(CIP #77119)

CEQA LEAD AGENCY:

El Dorado County

PREPARED:

February 2014

ADOPTED BY BOARD OF SUPERVISORS ON:

_____

Introduction

Purpose

El Dorado County (County) Community Development Agency, Transportation Division (Transportation) proposes to replace the Blair Road Bridge (No. 25C0077) over the El Dorado Irrigation District (EID) Canal (Project), located 0.7 mile north of the Pony Express Trail in the community of Pollock Pines, in unincorporated El Dorado County (Figures 1 and 2). The Blair Road Bridge over the EID Canal was built in 1935. It is 15 feet wide with a single lane. A Bridge Inspection Report conducted by Caltrans in 2010 indicates that the bridge has also exhibited evidence of scouring below the eastern abutment and lateral undermining, exposed rebar, diagonal cracks, and spalling on the concrete bridge rail. The bridge has a sufficiency rating of 56.5. The County has evaluated both rehabilitation and replacement options for the existing bridge and has determined that replacement of the bridge is the most cost-effective approach for correcting the functionally obsolete status of the bridge.

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

Regulatory Framework

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

Format of This Plan

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

Implementation of mitigation measures is ultimately the responsibility of Transportation; during construction, the delegated responsibility is shared by Transportation's contractors. Each mitigation measure in this plan contains a "Verified By" signature line, which will be signed by the

Transportation Project manager when the measure has been fully implemented and no further actions or monitoring are necessary for the implementation or effectiveness of the measure.

Impacts and Associated Monitoring or Reporting Measures

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

Mitigation Measure BIO-1: Protect Water Quality and Prevent Erosion and Sedimentation in the EID Canal

- The County and/or its construction contractor will ensure the construction specifications include the following water quality protection and erosion and sediment control best management practices (BMPs), based on standard County/Caltrans requirements, to minimize construction-related contaminants and mobilization of sediment in the EID canal in and adjacent to the project 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 the canal is in good working order and free of dripping or leaking engine fluids. All vehicle maintenance will be performed at least 50 feet from the canal. Any necessary equipment washing will be carried out where the water cannot flow into the canal.
    - 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 County will review and approve the contractors' toxic materials spill prevention control and countermeasure plan before allowing construction to begin. The County will routinely inspect the construction site to verity that BMPs specified in the plan are properly implemented and maintained. The County will notify the contractor immediately if there is a noncompliance issue and will require compliance. 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 from entering the canal or from contaminating the soil in the vicinity of the canal that could run off into the canal.
        - If any dewatering activities are necessary, prevent discharge of turbid water to the canal by filtering the discharge first using a filter bag, diverting the water to a settling tank, and/or treating the water in a manner to ensure compliance with water quality requirements prior to discharging water back to the canal.

- Clean up all spills immediately according to the spill prevention and countermeasure plan.
- Provide areas located outside the canal for staging and storing equipment, materials, fuels, lubricants, solvents, and other possible contaminants.
- Remove vehicles from the canal every day and before refueling and lubricating and ensure that areas where equipment is refueled or lubricated is storm-proofed to prevent contaminants from being discharged to the canal. Pump contaminated water to a holding tank for proper disposal.
- Avoid operation of vehicles and equipment in flowing water.
- Prohibit the following types of materials from being rinsed or washed into the streets, shoulder areas, or gutters: concrete; solvents and adhesives; thinners; paints; fuels; sawdust; dirt; gasoline; asphalt and concrete saw slurry; heavily chlorinated water.

o Dispose of any surplus concrete rubble, asphalt, or other rubble from construction at a local landfill.

o Prepare and implement an erosion and sediment control plan for the proposed project. The plan will include the following provisions and protocols.

- Discharge from dewatering operations, if needed, and runoff from disturbed areas will be made to conform to the waste discharge requirements 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 streets 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 15 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 re-vegetation 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.
- Revegetate the area adjacent to the canal where temporary impacts would occur during project construction.
- Limit disturbance to the canal bed to the maximum extent practicable.

Implementation:	The Contractor will ensure the construction specifications include the water quality protection and erosion and sediment control best management practices (BMPs) 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-2: Install Construction Barrier Fencing around the Construction Area to Protect Sensitive Biological Resources to Be Avoided

- Consistent with Caltrans specifications, the County or its contractor will install orange construction barrier fencing to identify environmentally sensitive areas as one of the first orders of work. The area that would generally be required for construction, including staging and access, is shown in Figure 4. Portions of this area that are to be avoided during construction will be fenced off to avoid disturbance. Before construction, the construction contractor will work with the project engineer and a resource specialist to identify the locations for the barrier fencing and will place stakes around the sensitive resource sites to indicate these locations. The protected areas will be designated as environmentally sensitive areas and clearly identified on the construction plans. The fencing will be installed before construction activities are initiated, maintained throughout the construction period, and removed when construction is completed. Sensitive biological resources that occur adjacent to the construction area include special-status wildlife habitats as discussed below.

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-3: Conduct Environmental Awareness Training for Construction Employees

- The County will retain a qualified biologist to develop and conduct environmental awareness training for construction employees on the importance of onsite biological resources, including mature trees to be retained; habitat for western pond turtle; potential nests of special-status birds including bald eagle, northern goshawk, California spotted owl, olive-sided flycatcher, and other migratory bird species including swallows; and roosting habitat for special-status bats. In addition, construction employees will be educated about invasive plant identification and the importance of controlling and preventing the spread of invasive plant infestations.
- The environmental awareness program will be provided to all construction 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 personnel are added to the project, the contractor's superintendent 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 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 Phases
Verified By:	_____ Date: _____ County Project Manager

Mitigation Measure BIO-4: Implement Protective Measures to Avoid or Minimize Potential Impacts on California Red-Legged Frog

- The County will implement the following protective measures to avoid or reduce potential impacts on California red-legged frog in the construction area.

- The first order of work will be to have vegetation manually clipped to ground level and removed by hand. The vegetation removal will be conducted with the presence of a USFWS-approved biologist, who will monitor the area for the presence of California red-legged frog.
- Following manual removal of vegetation, the work are will be fenced with sediment fencing at the upstream and downstream limits of the project and away from the canal at least 100 feet. The fencing will be buried a minimum of 6 inches into the ground. The project limits will be flagged and/or signed to prevent encroachment of construction personnel and equipment into any sensitive areas during project work. Animal exclusion fencing will be checked once per week by a USFWS-approved biologist to identify weaknesses and all compromised portions will be repaired and/or replaced immediately. Animal exclusion fencing will be removed once the construction is completed or by October 15 of the construction year, whichever comes first.
- Within 24 hours prior to the onset of vegetation removal, a USFWS-approved biologist will survey the project area for California red-legged frogs.
- The County will submit the name and credentials of the project's biologist(s) to the USFWS for review and approval at least 15 days prior to the onset of construction activities.
- Staging areas as well as fueling and maintenance activities will be a minimum of 100 feet from riparian and aquatic habitats. The County will prepare a spill prevention and clean-up plan.
- The County will implement BMPs to protect water quality and control erosion.
- If a work site is to be temporarily dewatered by pumping, intakes will be completely screened with wire mesh not larger than 5 millimeters. Water will be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Ideally the sediment fencing will tie into the outfall of the dewatering system at the ends of the project area to prevent a gap in the exclusion.

- Upon completion of construction activities, any barriers to flow will be removed in a manner that would allow flow to resume with the least disturbance to substrate.

Implementation:	The County will remove vegetation manually during the presence of a USFWS-approved wildlife biologist and fence area as defined above. Surveys for California red-legged frog will be conducted by approved biologist and setbacks and BMPs will be implemented as defined in the measure.
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-5: Conduct Preconstruction Surveys for Western Pond Turtle and Monitor Initial In-Water Work

- To avoid potential injury or mortality of western pond turtle, the County or its contractor will retain a qualified wildlife biologist to conduct a preconstruction survey for this species within 24 hours of the start of construction activities. This survey can be conducted concurrent with the preconstruction survey for California red-legged frog. The biologist will survey the EID canal within the construction area and 300 feet upstream and downstream of the construction area for western pond turtle. If work in the canal does not start immediately, the biologist will return to the construction site immediately prior to the start of work in the canal to conduct another preconstruction survey. The biologist will remain on site until initial work in the canal is complete. If a western pond turtle becomes trapped during construction, the biologist will relocate the individual to suitable aquatic habitat upstream or downstream of the construction area. The biologist will have had their CDFW scientific collecting permit amended to include capture and relocation of western pond turtle. Because turtle eggs are buried and generally cannot be seen, a survey for eggs is not recommended. If turtle eggs are discovered during construction in the conifer forest area, the biologist will be contacted immediately and the eggs will be reburied.
- For the remainder of construction, the biologist will remain on-call in case a western pond turtle or a nest within turtle eggs is discovered. The construction crew will be instructed to notify the crew foreman and/or the resident engineer who will contact the biologist if a western pond turtle is found dead or trapped within the construction area, or if a nest containing turtle eggs is found. Work in the area where the turtle is found dead or trapped, or where the eggs are found will stop until the biologist arrives and removes and relocates the turtle or eggs. The biologist will report their activities to the County and CDFW within one day of relocating or finding any dead western pond turtle or turtle eggs.

Implementation:	The County will retain a qualified wildlife biologist to conduct a preconstruction survey for Western pond turtle within 24 hours of the start of construction activities, monitor in-water work during construction, and remain on-call for the remainder of construction.
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-6: 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 February 15). 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 February 15, the area where vegetation will be removed must be surveyed for nesting birds, as discussed below.

- The County will retain a qualified wildlife biologist with knowledge of the relevant species to conduct nesting surveys before the start of construction. A minimum of two separate surveys will be conducted for migratory birds, including raptors. Surveys will include a search of all trees and shrubs that provide suitable nesting habitat in the project area. In addition, a 500 foot area around the project area will be surveyed for nesting raptors. If possible, the first survey should occur during the height of the breeding season (March 1 to June 1) and the final survey will occur within 1 week of the start of construction. 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-7: Identify Suitable Roosting Habitat for Bats and Implement Avoidance and Protective Measures

- 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.). Mature broadleaf trees should be considered potential habitat for solitary foliage–roosting bat species. 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 may 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, if feasible, which corresponds to a time period when bats have not yet entered torpor or would be

caring for nonvolant young. If tree removal cannot be conducting during this period, then qualified biologists will examine trees to be removed for suitable bat roosting habitat, as described above.

- Trees will be removed in pieces rather than felling an entire tree.
- 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.
- 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/removal that occurs before September 16 or after October 31. If possible, tree trimming/removal should occur in the late afternoon or evening when it is closer to the time that bats would normally arouse. Prior to removal/trimming, each tree will be shaken gently and several minutes should pass before felling trees or limbs to allow bats time to arouse and leave the tree. The biologists should search downed vegetation for dead and injured bats. The presence of dead or injured bats that are species of special concern will be reported to CDFW. The biologist will prepare a biological monitoring report, which will be provided to the project lead and CDFW. This report will outline procedures that adequately protect the species during construction to the satisfaction of 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 15 and October 30, and will implement the avoidance and minimization measures above.
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-8: Avoid the Introduction and Spread of Invasive Plants

- The 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;
  - Minimize surface disturbance to the greatest extent feasible to complete the work; and
  - Use weed-free imported erosion-control materials (or rice straw in upland areas).

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 Biological Resources (b): Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

Mitigation Measure BIO-1: Protect Water Quality and Prevent Erosion and Sedimentation in the EID Canal

- Please refer to the discussion of BIO-1 under item "a" above.

Impact Biological Resources (d): Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Mitigation Measure BIO-2: Install Construction Barrier Fencing around the Construction Area to Protect Sensitive Biological Resources to Be Avoided

- Please refer to the discussion of BIO-2 under item "a" above.

Mitigation Measure BIO-3: Conduct Environmental Awareness Training for Construction Employees

- Please refer to the discussion of BIO-3 under item "a" above.

Mitigation Measure BIO-6: Remove Vegetation during the Nonbreeding Season and Conduct Preconstruction Surveys for Nesting Migratory Birds

- Please refer to the discussion of BIO-6 under item "a" above.

Impact Noise (a): Expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies.

and

Impact Noise (d): Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Mitigation Measure NOI-1: Employ Noise-Reducing Construction Practices

- The construction 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. These standards limit construction noise as follows:

		Noise Level (dB)	
Land Use Designation	Time Period	L_{eq}	L_{max}
All Residential (MFR, HDR, MDR)	7 am–7 pm	55	75
	7 pm–10 pm	50	65
	10 pm–7 am	40	55
Commercial, Recreation, and Public Facilities (C, TR, PF)	7 am–7 pm	65	75
	7 pm–7 am	60	70
Industrial (I)	Any Time	70	80
Open Space (OS)	7 am–7 pm	55	75
	7 pm–7 am	50	65

- Measures that can be used to limit noise include but are not limited to
  - prohibiting noise-generating construction activity between the hours of 7:00 p.m. and 7:00 a.m.
  - locating equipment as far a practical 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;
  - prohibiting gasoline or diesel engines from having unmuffled exhaust; and
  - selecting haul routes that affect the fewest number of people.

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 the implementation of the above-referenced measures.
Timing:	Construction Phase
Verified By:	_____ Date: _____ County Project Manager

Mitigation Measure NOI-2: Disseminate Essential Information to Residences and Implement a Complaint/Response Tracking Program

- Before construction begins, Transportation or the construction contractor shall notify residences within 500 feet of the construction areas of the construction schedule in writing. The construction contractor will designate a noise disturbance coordinator who will be responsible for responding to complaints regarding construction noise during the full term of construction. The coordinator will determine the cause of the complaint and will ensure that reasonable measures are implemented to correct the problem. A contact telephone number for the noise disturbance coordinator will be conspicuously posted on construction site fences and will be included in the written notification of the construction schedule sent to nearby residents. The noise disturbance coordinator shall submit to El Dorado County a weekly summary of any noise complaints that have been received. The summary shall include, but is not limited to, the name of the complainant and their location, the nature of their complaint, and the action being taken to address the complaint.

Implementation:	The Contractor shall notify residences within 500 feet of the construction areas of the construction schedule in writing and implement the complaint/response tracking program 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