

**Initial Study/ Proposed
Mitigated Negative Declaration**

for the

**Plumbago Road over Kanaka Creek
Bridge (13C0051) Replacement Project**

(Federal Aid Number: BRLO 5913 (058))

March 2024

**Sierra County
Department of Public Works and Department of Transportation
101 Courthouse Square
P.O. Box 98
Downieville, CA 95936**

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Appendix A: Mitigation Monitoring and Reporting Plan

1. Project Information

In accordance with the California Environmental Quality Act (CEQA) Guidelines Section 15063 (Initial Study), Sierra County has prepared this Initial Study to assess the potential environmental impacts of the proposed Plumbago Road Bridge (13C0051) over Kanaka Creek Replacement Project that will replace the existing bridge with a new bridge structure.

1. Project Title: Plumbago Road Bridge (13C0051) over Kanaka Creek Replacement Project
2. Assessor's Parcel Number: Plumbago Road in the Project area occurs on Assessor's Parcel Numbers 006-090-002 (11.17 acres), 006-090-003 (15.34 acres), 004-190-035 (19.86 acres), 004-190-046 (0.14 acres) and 004-190-047 (0.15 acres). All are privately owned parcels.
3. Lead Agency Name and Address: Sierra County Department of Public Works and Department of Transportation 101 Courthouse Square P.O. Box 98 Downieville, CA 95936
4. Contact Person and Phone Number: Bryan Davey, Director of Transportation (530) 289-3201 bdavey@sierracounty.ca.gov
5. Document Preparer: SWCA Environmental Consultants, Inc.
6. Project Location: The Project is located along Plumbago Road approximately 0.4 air miles southeast of the town of Alleghany in southwest Sierra County, California. The Project area is on a County right-of-way (ROW) through privately-owned parcels surrounded by the Tahoe National Forest (Figure 1). The Project Area is located on the Alleghany USGS topographic quadrangle (quad) (T19N, R10E, Section 34 and T18N, R10E, Section 3; Mt. Diablo Base and Meridian).
7. Document Sponsor: Sierra County Department of Public Works and Department of Transportation
8. Project Background: The Sierra County Departments of Public Works and Transportation, in conjunction with the California Department of Transportation (Caltrans) and the Federal Highway Administration (FHWA), intend to replace the existing Plumbago Road Bridge (13C0051) over Kanaka Creek. The proposed 92.5-foot-long, 18.3-foot-wide, single-span bridge will be constructed on substantially the

same alignment. The new bridge would improve roadway safety and be consistent with American Association of State Highway and Transportation Officials (AASHTO) guidelines.

The existing Plumbago Road Bridge constructed in 1985 is a 9-foot-wide single-span railroad flat car superstructure with a deck length of 89 feet. The existing bridge has a steel plate deck and reinforced concrete abutments. Gabion baskets form the wingwalls at the southern abutment. The bridge has a Caltrans sufficiency rating of 48.3 and has a deteriorating bridge deck, inadequate deck geometry, damaged supporting brackets, torn stiffeners, and a failing paint system.

9. General Plan Land Use Designation:

Sierra County Assessor’s Parcel Number (APN)	General Plan Land Use Designation	Zoning Designation	Williamson Act Contract Status
Sierra County ROW	NA	NA	NA
006-090-002	Forest/Open Space	General Forest (GF)	Not Enrolled
006-090-003	Forest/Open Space	General Forest (GF)	Not Enrolled
004-190-035	Forest/Open Space	General Forest (GF)	Not Enrolled
004-190-046	Forest/Open Space	General Forest (GF)	Not Enrolled
004-190-047	Forest/Open Space	General Forest (GF)	Not Enrolled

10. Zoning District:

See table above.

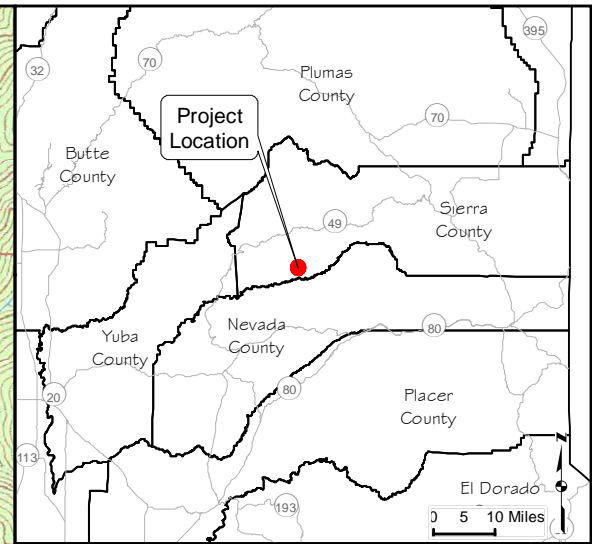
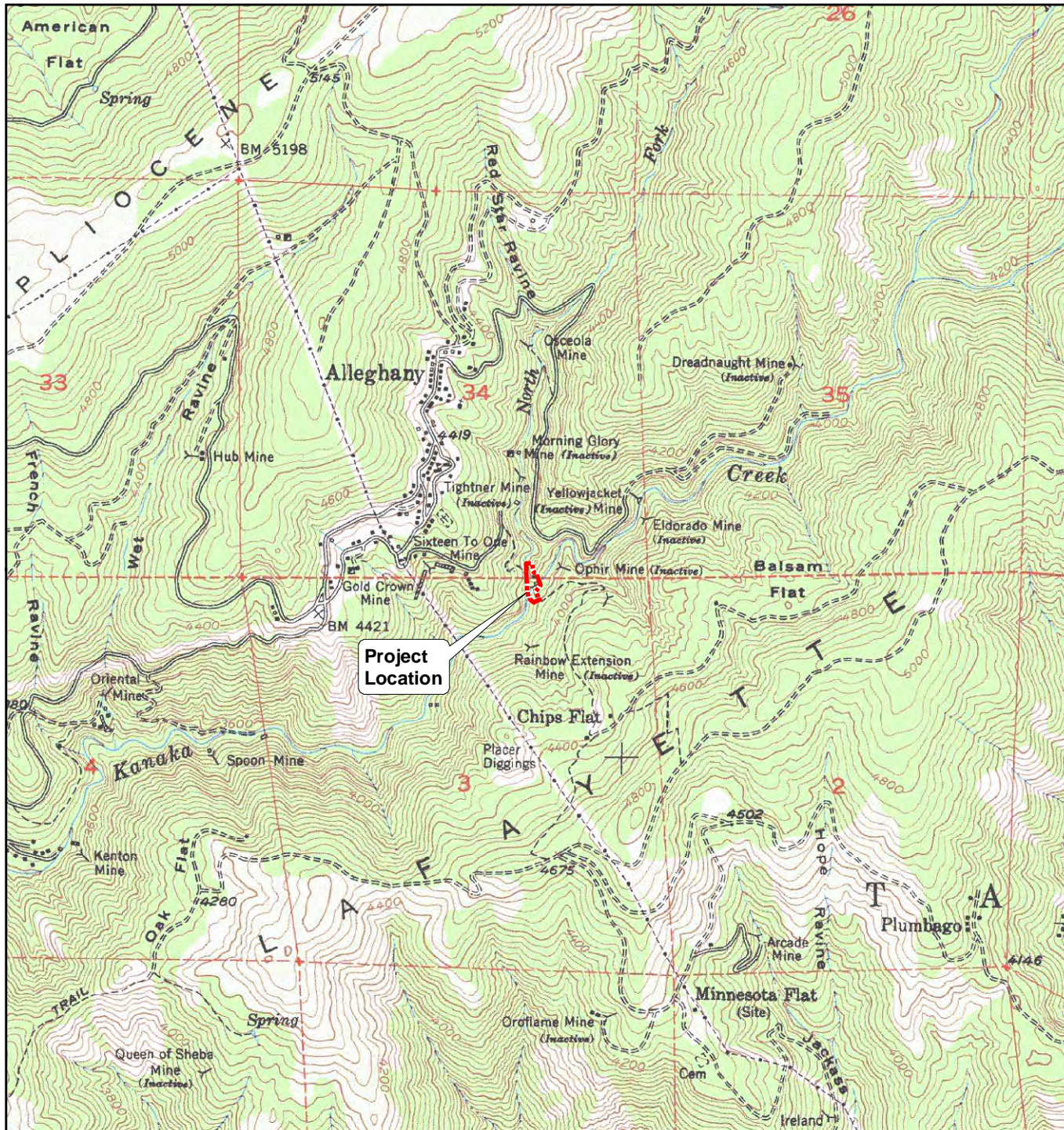
11. Existing Land Uses:

Surrounding land use consists primarily of conifer forest, rural residential development, and active and inactive mines. The Project area is on a County ROW through privately-owned parcels surrounded by the Original Sixteen to One Mine land to the west, privately-owned parcels to the north, and the Tahoe National Forest to the east and south.

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

The Project requires permits or approvals from the following:

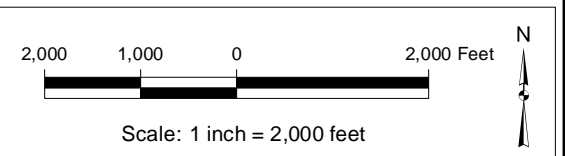
- Caltrans — National Environmental Policy Act (NEPA) Categorical Exclusion
- U.S. Army Corps of Engineers — Section 404 Clean Water Act Nationwide Permit
- Central Valley Regional Water Quality Control Board — Section 401 Water Quality Certification
- California Department of Fish and Wildlife — Streambed Alteration Agreement
- California Air Resources Board — Asbestos NESHAP Notification Of Demolition & Renovation



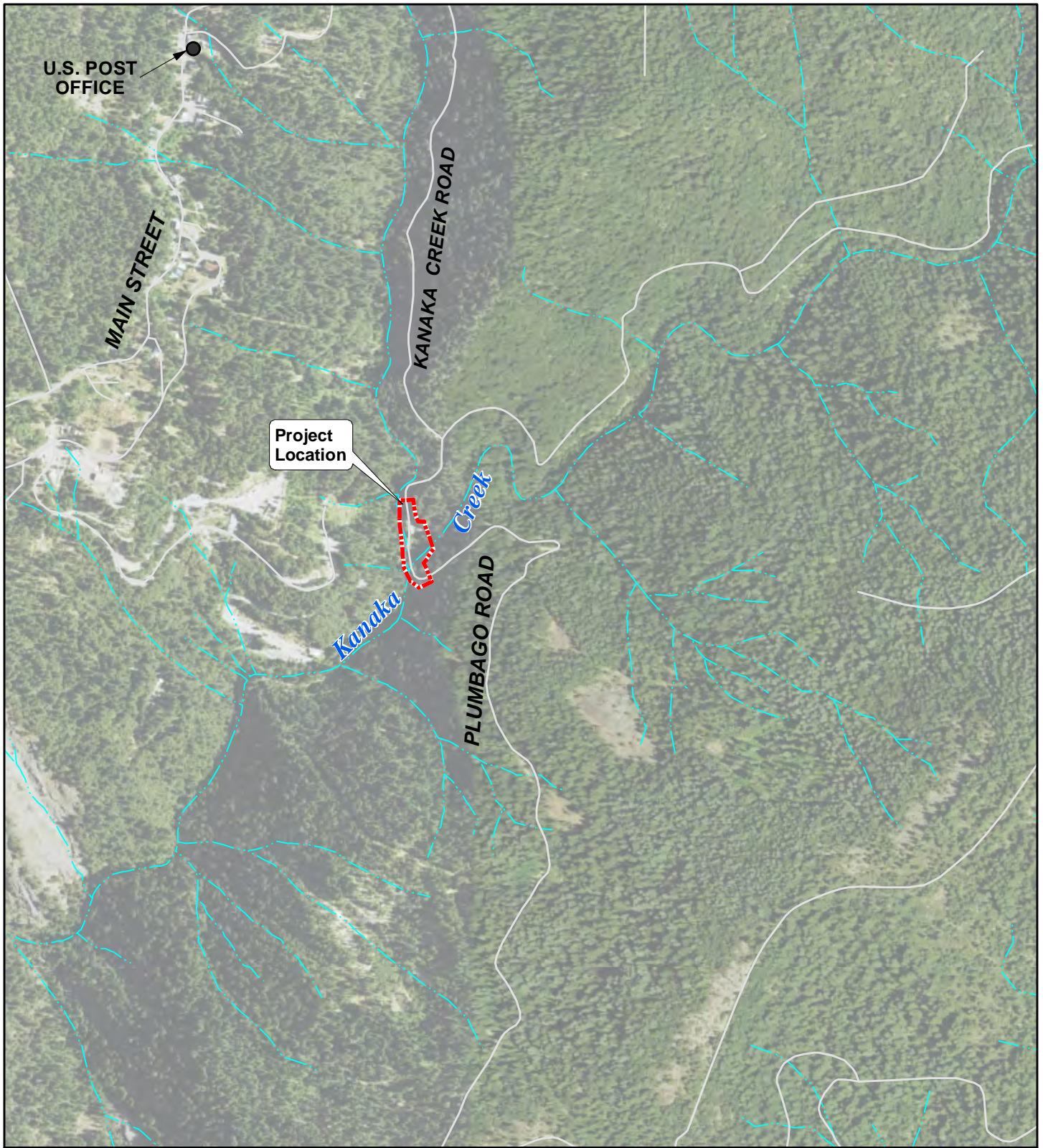
Plumbago Road Bridge (13C-0051)
 Over Kanaka Creek
 Sierra County, CA
 8 February 2017

Figure 1. Project Location Map

 Project Location



Alleghany, CA (Revised 1973)
 CASIL California USGS Digital Raster Graphics (DRG),
 7.5 Minute (C) Series, Albers Nad83 Mosaics (MrSID)
 o_nw0103.sid



Plumbago Road Bridge (13C-0051)
 Over Kanaka Creek
 Sierra County, CA
 8 February 2017

 Project Location

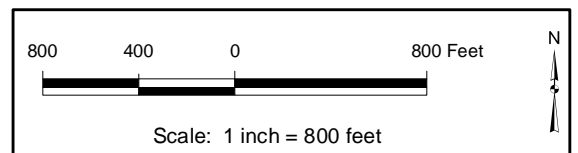


Figure 2. Aerial Photograph

Aerial Photograph: 25 July 2014
 NAIP2014 USDA FSA Imagery
 ESRI Arcmap Basemap Layer
 Hyrdography: USGS NHD Hrdography Flowlines

2. Introduction

The Sierra County Departments of Public Works and Transportation, in conjunction with the California Department of Transportation (Caltrans) and the Federal Highway Administration (FHWA), intend to replace the existing Plumbago Road Bridge (13C0051) over Kanaka Creek. The proposed 92.5-foot-long, 18.3-foot-wide, single-span bridge would be constructed on substantially the same alignment. The new bridge would improve roadway safety and be consistent with American Association of State Highway and Transportation Officials (AASHTO) guidelines.

Sierra 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 proposed Project would have less than significant impacts on the environment with the incorporation of mitigation measures. The County may approve the proposed Project with the certification of a Mitigated Negative Declaration (MND) and adoption of the Mitigation Monitoring and Reporting Plan.

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

- **Section 3, Project Description:** Provides a detailed description of the proposed Project;
- **Section 4, Initial Study Findings:** Provides a determination of the County’s CEQA findings;
- **Section 5, 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 6, Supporting Information Sources:** Identifies the personnel responsible for the preparation of this document and provides a list of the references cited throughout the document.
- **Appendix A, Mitigation Monitoring and Reporting Plan:** Contains the Mitigation Monitoring and Reporting Plan prepared for the proposed Project. The Mitigation Monitoring and Reporting Plan includes a list of required mitigation measures and includes information regarding the County’s policies and procedures for implementation and monitoring of the mitigation measures.

3. Project Description

3.1 Location

The Project is in the Sierra Nevada Mountain Range, southeast of the community of Alleghany in unincorporated southwestern Sierra County (Figure 1 and Figure 2). The Project is surrounded by dense coniferous forest and steep slopes. The Project area is located on privately-owned parcels surrounded by the Tahoe National Forest. The Project area occurs in the northwest portion of the Alleghany USGS topographic quadrangle (quad) (T19N, R10E, Section 34 and T18N, R10E, Section 3; Mt. Diablo Base and Meridian).

3.2 Project History

The Sierra County Departments of Public Works and Transportation, in conjunction with the California Department of Transportation (Caltrans) and the Federal Highway Administration (FHWA), intend to replace the existing Plumbago Road Bridge (13C0051) over Kanaka Creek. The proposed 92.5-foot-long, 18.3-foot-wide, single-span bridge will be constructed on substantially the same alignment. The existing Plumbago Road Bridge constructed in 1985 is a 9-foot-wide single-span railroad flat car superstructure with a deck length of 89 feet. The existing bridge has a steel plate deck and reinforced concrete abutments. Gabion baskets form the wingwalls at the southern abutment.

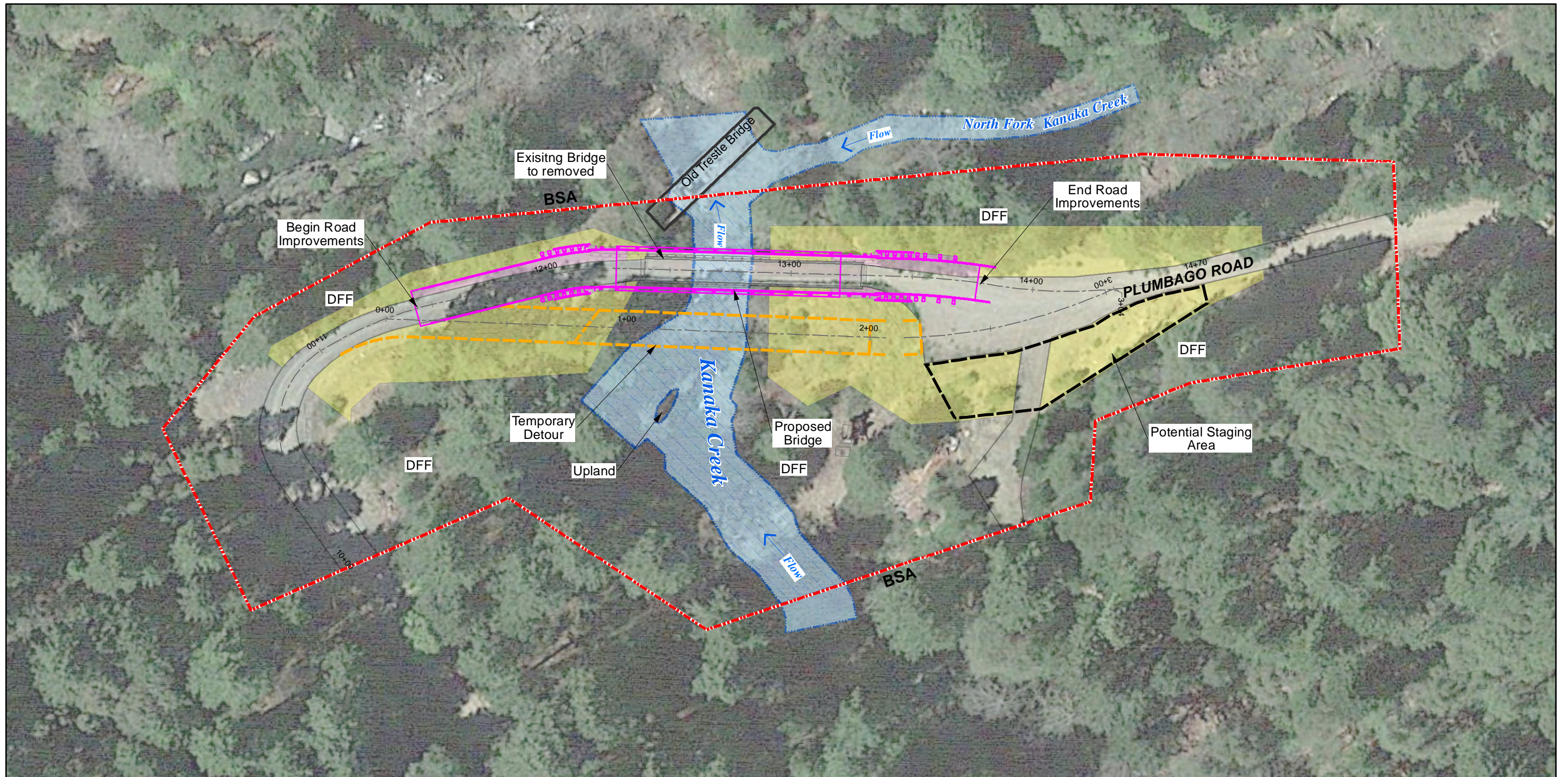
3.3 Project Purpose and Objectives

The bridge has a Caltrans sufficiency rating of 48.3 and has a deteriorating bridge deck, inadequate deck geometry, damaged supporting brackets, torn stiffeners, and a failing paint system. The new bridge would improve roadway safety and be consistent with American Association of State Highway and Transportation Officials (AASHTO) guidelines.






3.4 Project Description

Sierra County evaluated constructing a new bridge on a new upstream alignment but rejected it to avoid cultural resources and permanent right-of-way (ROW) acquisition. The proposed bridge would therefore be constructed on substantially the same alignment with an upstream shift of approximately 7.5 feet to enhance Project constructability. Bridge replacement on substantially the same alignment is preferred because it avoids cultural resources and the need to acquire a permanent ROW (see Figure 3).

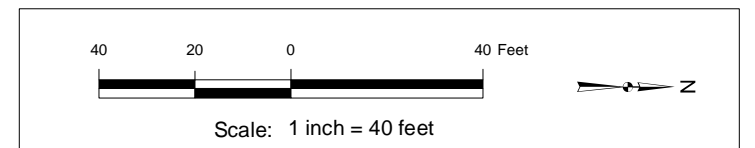
Two bridge structure types were evaluated for the Project. The selected structure is a 92.5-foot-long, 18.3-foot-wide, single-span, cast-in-place, prestressed concrete box girder superstructure supported on seat type abutments with 36-inch cast-in-drilled-hole concrete pile shaft foundations (see Figure 4). This design is preferred as it produces large savings in construction and maintenance costs. The other structure type considered consisted of a single-span, composite welded steel plate girder superstructure with a reinforced concrete deck slab on seat type abutments with 36-inch cast-in-drilled-hole concrete pile shaft foundations. While this structure would not require falsework, and would take less time to construct, it would be more expensive to construct and maintain.



Plumbago Road Bridge (13C-0051)
 Over Kanaka Creek
 Sierra County, CA
 8 February 2017

-  Biological Study Area (BSA; 1.48 ac)
-  Kanaka Creek
-  Douglas-Fir Forest (DFF)
-  Road and Bridge Improvements
-  Temporary Detour

Natural Community	Acreage	Permanent Impact (ac)	Temporary Impact (ac)	Total Impacts (ac)
Douglas-Fir Forest	1.14	0.02	0.30	0.32
Kanaka Creek	0.14	0	0	0
Disturbed Areas/Roads	0.20	--	--	--
Total	1.48	0.02	0.30	0.32



Proposed Layout: Plumbago Road Bridge
 CIF/P5 Conc. Box Girder Alt. General Plan (29 May 2015)
 by MGE Engineering CAD file: Plumbago Corridor.dwg (Rev'd: 2 Aug. 2016)
 Basemap: Topographic Survey of Plumbago Bridge
 14G22TPO-Plumbago.dwg by ANDREGG Geomatics (31 Oct. 2014)
 Aerial Photograph: 15 April 2015
 Google Earth Imagery
 Note: the aerial is not orthorectified.

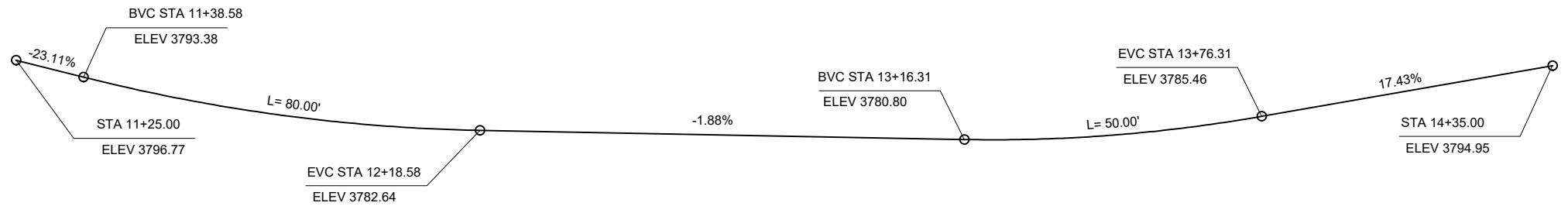
Figure 3. Project Impact Map

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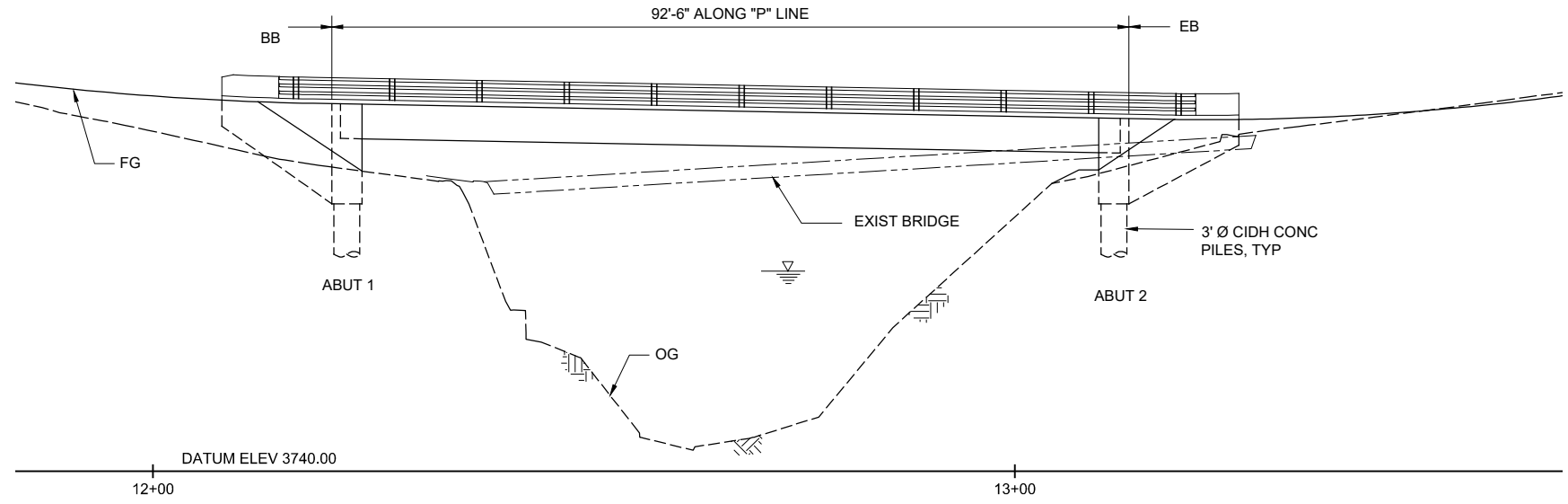
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Sierra	CoRd	N/A	13	28

REGISTERED CIVIL ENGINEER	DATE
R. E. SENNETT IV	
NO. 3976	
PLANS APPROVAL DATE	
EXP. 12/31/24	

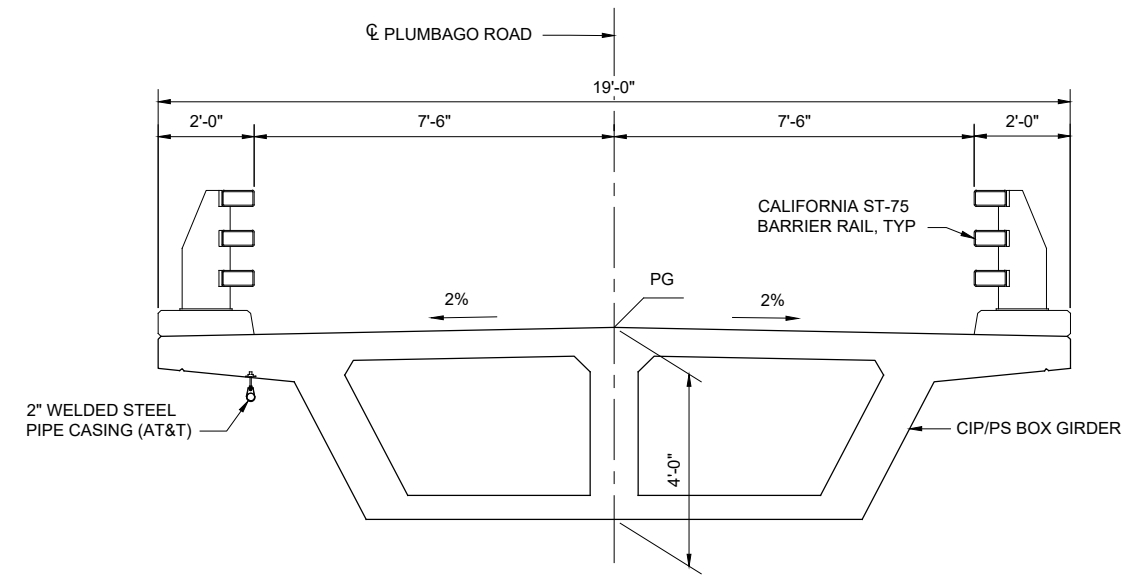
MGE ENGINEERING INC.
7415 Greenhaven Dr. Suite 100
Sacramento, California 95831 (916) 421-1000



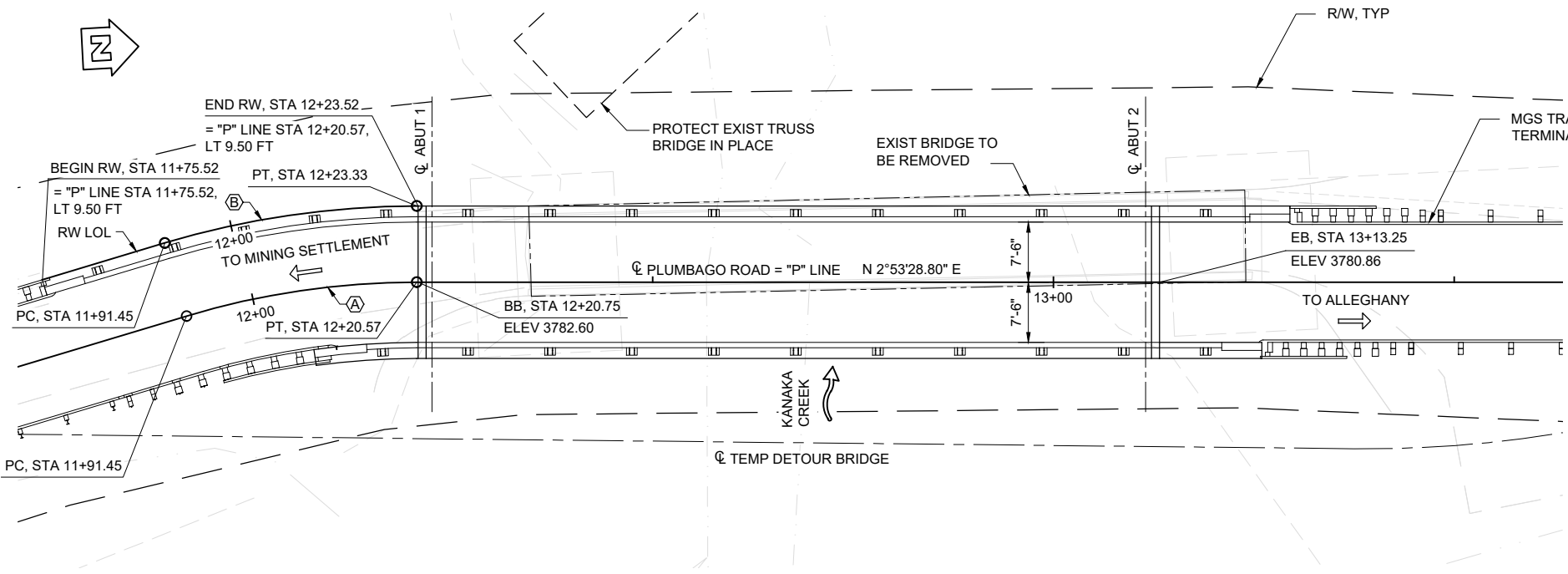
PROFILE GRADE
NO SCALE



ELEVATION
1" = 10'



TYPICAL SECTION
1/2" = 1'-0"



PLAN
1" = 10'

LEGEND

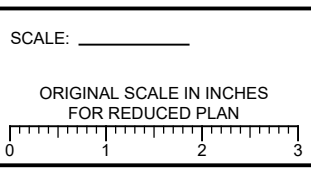
- INDICATES NEW CONSTRUCTION
- - - INDICATES EXISTING CONSTRUCTION
- INDICATES DIRECTION OF TRAFFIC
- ⇨ INDICATES DIRECTION OF FLOW
- ▽ FOR HYDROLOGIC SUMMARY, SEE "FOUNDATION PLAN" SHEET

CURVE DATA

CURVE	R (FT)	Δ (°)	TAN (FT)	L (FT)
(A)	100.00	16.68	14.66	29.12
(B)	109.50	16.68	16.06	31.89

Drawing Name: P:\036 Sierra County - Plumbago Road\06 CAD\Structure\05 GF_F.D.DWG
and Shared Vics: 25 Jan 2025 12:28pm by PZL
Printed: Jan 25, 2025 10:18am by PZL

REVISIONS				
MARK	DATE	DESCRIPTION	BY	CHKD
△				
△				
△				



CIVIL ENGINEER:	R. SENNETT	DATE:	5/2022
DESIGNED BY:	P. ZHAO	DATE:	5/2022
DRAWN BY:	K. WANG	DATE:	5/2022
CHECKED BY:		DATE:	5/2022

PREPARED FOR THE		CI#	BRIDGE NO.
SIERRA COUNTY			13C0051
DEPARTMENT OF TRANSPORTATION		FILE#	POST MILE
		DWG#	N/A
		DATE:	4/30/2020

GENERAL PLAN		13
PLUMBAGO ROAD BRIDGE REPLACEMENT OVER KANAKA CREEK		

SHEET NO. 13 OF 28 SHTS.

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The average daily traffic (ADT) at the bridge site was reported to be 20 vehicles per day in 2005. The AASHTO guidelines allow for a one-lane bridge to carry two-way traffic where the ADT is less than 100 vehicles per day and the principal engineer/designer finds that a one-lane bridge can operate effectively. AASHTO recommends a minimum clear width between bridge barriers of 15 feet for a one-lane bridge. The new deck would have a clear width of 15 feet, compared to the existing 9-foot clear width. Drilled holes for the 3-foot-diameter piles supporting the abutments are anticipated to be approximately 30 feet deep. Abutment excavations are anticipated to be 5 to 6 feet deep. The approach roadways would remain on the same horizontal alignment. Improvements at each of the approaches would include approximately 145 feet of new asphalt paved road.

Plumbago Road would remain open to traffic during construction as there is no reasonable detour available. A temporary bridge detour would be constructed immediately east (upstream) of the existing bridge to accommodate traffic during construction, as well as provide construction access. Temporary construction easements would be acquired on the east side of the existing bridge to support the temporary detour bridge, detour bridge road approaches, and staging areas. Contractor staging would be available at the approach roadways between abutments and areas where the temporary detour would tie into the existing roadways.

Caltrans standard California ST-75 open bridge railings are proposed to provide views of Kanaka Creek, as well as aid in snow removal. No modifications to the railing height would be made as pedestrian and bicycle traffic is not anticipated. A Standard Midwest Guardrail System consisting of a transition railing and terminal system would be installed at all four corners of the bridge.

Roadway drainage would follow the same drainage patterns as the existing conditions. Surface drainage would flow off both sides of the crowned roadway before discharge. Scuppers in the bridge barrier curbs would direct roadway drainage along the edge of the deck and into Kanaka Creek. Two telephone cables are routed across the existing bridge. The proposed Project design indicates that existing utility lines would be housed in a communications conduit hung from the deck slab.

Clearing and grubbing, including tree removal, is anticipated to accommodate the temporary bridge detour and wider bridge. General bridge construction equipment expected to be used would include, but would not be limited to, haul trucks, cranes, excavators, gradalls, backhoes, dump delivery trucks, concrete boom pump, and service vehicles.

The Project would not result in fill of Kanaka Creek. The majority of construction activities, including construction of the abutments, bridge deck, and staging, would take place in the uplands. Falsework support foundations for the new bridge would be located above the Ordinary High Water Mark (OHWM) of Kanaka Creek. No creek access would be necessary. Channel modifications and bank alterations are not required. The new clear span (abutment to abutment) of the proposed bridge will be above the OHWM and riparian zone with a length of 85.5 feet versus the existing 80-foot clear span.

Caltrans design requirements specify that new structures should provide a minimum of 2 feet of freeboard above the design high water surface elevation (50-year event), and pass the 100-year event. The existing and proposed bridge soffit is considerably higher than the 50- and 100-year water surfaces.

The 50-year and 100-year water surface elevations are at 3,761.8 and 3,763.2 feet, respectively; the soffit elevation of the proposed replacement bridge is 3,776.7 feet. This results in freeboard clearances of 14.9 feet and 13.5 feet above the 50- and 100-year events, respectively. Design flows and corresponding high water surface elevations at the site would not require a raise of the existing vertical roadway profile.

Preliminary review concluded a potential contraction scour depth of 7.4 feet. The proposed abutments would be a minimum of 8 feet above the 100-year water surface elevation. Thus, scour protection through the placement of Rock Slope Protection (RSP) is not necessary.

The existing bridge would be removed using a crane following the completion of the temporary bridge detour. Tarps, platforms, or similar would be used to prevent debris from entering the creek during removal. Bridge removal would consist of removal of the substructure and gabion retaining walls. The new abutments would be located outside the limits of the existing abutment footings so complete removal of the existing abutments would not be required. However, portions of the existing abutments may need to be removed to facilitate construction of the new bridge. An abandoned steel truss bridge less than 20 feet downstream of the existing bridge will be avoided by the Project.

Best management practices (BMPs) would be implemented during construction to prevent concrete or other materials from entering Kanaka Creek. Areas temporarily disturbed by the Project will be revegetated for erosion control.

3.5 Project Schedule

Construction of the proposed bridge is planned to commence in 2024 or later. Work in the riparian zone would be restricted to the dry season, generally defined as the time period between 15 April and the first qualifying rain event on or after 15 October (more than one half inch of precipitation in a 24-hour period), subject to the Streambed Alteration Agreement, unless CDFW provides approval of work outside that period. Project duration is expected to be one season.

3.6 Construction Contract

The County would retain a construction contractor to construct the proposed improvements. The contractor would be responsible for compliance with all applicable rules, regulations, and ordinances associated with proposed Project activities and for implementing construction-related mitigation measures. The County would provide 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 County. The following are a combination of standard and project-specific procedures/requirements applicable to Project construction:

- Construction contract special provisions will require that a Traffic Management Plan be prepared. The Traffic Management Plan will include construction staging and traffic control

measures to be implemented during construction to maintain and minimize impacts to traffic during construction. The Traffic Management Plan will address the coordination issues.

- Contract provisions will require notification of the County and compliance with:
 - State Health and Safety Code Section 7050.5. If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted.
 - Public Resources Code (PRC) Section 5097.9 et seq. Pursuant to PRC Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC) who will then notify the Most Likely Descendent (MLD). Further provisions of PRC Section 5097.9 et seq are to be followed as applicable.
 - Public Resources Code Section 5097.5 et seq. Pursuant to PRC Section 5097.5 no person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over the lands.
- Contract provisions will require implementation of best management practices (BMPs) consistent with the latest version of Caltrans' Construction Site Best Management Practices (BMPs) Manual and the Stormwater Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual (Caltrans 2017) to protect water quality and minimize the potential for siltation and downstream sedimentation.
- The County 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.
- The County and its construction contractors will comply with the current State of California Standard Specifications written by the State of California Department of Transportation, for public service provision.

4. Determination

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.

<input type="checkbox"/> Aesthetics	<input type="checkbox"/> Land Use / Planning
<input type="checkbox"/> Agriculture/Forestry Resources	<input type="checkbox"/> Mineral Resources
<input checked="" type="checkbox"/> Air Quality	<input type="checkbox"/> Noise
<input checked="" type="checkbox"/> Biological Resources	<input type="checkbox"/> Population / Housing
<input type="checkbox"/> Cultural Resources	<input type="checkbox"/> Public Services
<input type="checkbox"/> Energy	<input type="checkbox"/> Recreation
<input type="checkbox"/> Geology / Soils	<input type="checkbox"/> Transportation
<input type="checkbox"/> Greenhouse Gas Emissions	<input type="checkbox"/> Tribal Cultural Resources
<input checked="" type="checkbox"/> Hazards & Hazardous Materials	<input type="checkbox"/> Utilities / Service Systems
<input type="checkbox"/> Hydrology and Water Quality	<input type="checkbox"/> Wildfire
	<input type="checkbox"/> Mandatory Findings of Significance

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 revisions in the project (mitigation measures) have been made or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the Project MAY have a “Potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature:

Bryan Davey

Date:

03/29/2024

Name and Title: Bryan Davey, Director of Transportation

5. Initial Study Checklist and Supporting Documentation

5.1 Initial Study Checklist

This section of the Initial Study incorporates the Environmental Checklist contained in Appendix G of the CEQA Guidelines. Each resource topic section provides a determination of potential impact and an explanation for the checklist impact questions. The following 20 environmental categories are addressed in this section:

- | | |
|-----------------------------------|---------------------------------|
| 1. Aesthetics | 11. Land Use / Planning |
| 2. Agriculture/Forestry Resources | 12. Mineral Resources |
| 3. Air Quality | 13. Noise |
| 4. Biological Resources | 14. Population / Housing |
| 5. Cultural Resources | 15. Public Services |
| 6. Energy | 16. Recreation |
| 7. Geology / Soils | 17. Transportation |
| 8. Greenhouse Gas Emissions | 18. Tribal Cultural Resources |
| 9. Hazards & Hazardous Materials | 19. Utilities / Service Systems |
| 10. Hydrology and Water Quality | 20. Wildfire |

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.

5.2 Setting, Impacts, and Mitigation Measures

5.2.1 Aesthetics

Except as provided in Public Resources Code Section 21099 would the project:	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

A Scenic Resource Evaluation and Visual Impact Assessment Memo was prepared for the Project and approved by Caltrans on 11 December 2017 (Sycamore Environmental 2017d). The Project occurs in the Sierra Nevada, at an elevation range from approximately 3,725 to 3,850 feet above sea level. Most slopes in the Project area are very steep and some are impassable. The confluence of Kanaka Creek with North Fork Kanaka Creek is just west of, and outside, the Project area. The entire Project area drains to either Kanaka Creek or North Fork Kanaka Creek.

Potential Environmental Effects

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

Table 16-1 (Sierra County Scenic Roads) of the County General Plan, Visual Resource Element (1996) list scenic roads in Sierra County. Per Table 16-1 Plumbago Road is not a County or State listed or candidate scenic road. The Project is not located on a highway or route that is designated or eligible for designation as a scenic highway (Caltrans 2024a).

Figure 16-1 (Sierra County Critical Views Map) of the County General Plan, Visual Resource Element (1996) lists ‘important scenic features’. The community of Alleghany is identified as a ‘living historic community’. The County General Plan, Visual Resource Element includes the following policy and implementation measures relating to a living historic community:

- Policy 7: Protect the visual integrity of the County’s Living Historic Communities

- Implementation Measure 7a: Consider development of lighting standards to become part of design guidelines.

The Sierra County General Plan Visual Resource Element (1996) Table 16-2 identifies Alleghany as a ‘living historic community’ as a ‘scenic features deserving protection’.

The Project consists of replacement of an existing bridge. The Project would have temporary visual impacts from construction activities during and for a short period following construction. The replacement bridge would be visually consistent with other transportation infrastructure in the vicinity of the Project. The Project is located approximately 0.3 mile south of Alleghany. The Project would not result in substantial alteration to the existing ‘living historic community’ of Alleghany.

An Archaeological Survey Report (ASR) and Historic Resource Evaluation Report (HRER) were prepared for the Project. The ASR included a records search, literature review, an intensive pedestrian survey, and consultation with the Native American community and local preservation societies. No prehistoric archaeological resources were found within the Project area.

The purpose of the HRER is to identify built environment resources that are 50 or more years old within the Project area and evaluate eligibility for listing in the National Register of Historical Places (National Register) and California Register of Historical Resources. The HRER evaluates three cultural resources:

- Ophir Mine 5-Stamp Mill Battery
- Pony Truss Bridge over Kanaka Creek
- Plumbago Road Bridge over Kanaka Creek

The Plumbago Road Bridge over Kanaka Creek was previously evaluated by Caltrans as a Category 5 and is not eligible for listing on the NRHP. The Ophir Mine 5-Stamp Mill Battery and the Pratt Pony Truss Bridge appear eligible for listing on the National Register of Historic Places (NRHP) and to be historical resources for the purposes of CEQA.

The proposed Project has been designed to avoid impacts to both the Ophir Mine 5-Stamp Mill Battery and the Pratt Pony Truss Bridge. An Environmentally Sensitive Area (ESA) Action Plan has been prepared to ensure no damage would occur to the historic resources in the Project area during construction of the new bridge (thereby avoiding direct or indirect impacts to the value of the resources in their entirety). Protective measures would include installation of fencing or other clear markers, access restrictions, and specific contractual language to ensure that construction contractors comply with the ESA Action Plan. Impacts to the scenic resources would therefore be considered less than significant.

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

Mitigation Measures: None needed.

5.2.2 Agriculture and Forestry Resources

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

	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The Project is located in a rural area in the Sierra Nevada and is outside of the area mapped as part of the States Farmland Mapping and Monitoring Program (California Department of Conservation 2020). No Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or Farmland of Local Importance occur in the Project area. None of the APNs in the Project area are under Williamson Act contract. County zoning and land use designations for the APNs in the Project area are shown in Table 1.

Table 1. Project Area Assessor's Parcel Numbers and Designations

Sierra County Assessor's Parcel Number (APN)	General Plan Land Use Designation	Zoning Designation	Williamson Act Contract Status
Sierra County ROW	NA	NA	NA
006-090-002	Forest/ Open Space	General Forest (GF)	Not Enrolled
006-090-003	Forest/ Open Space	General Forest (GF)	Not Enrolled
004-190-035	Forest/ Open Space	General Forest (GF)	Not Enrolled
004-190-046	Forest/ Open Space	General Forest (GF)	Not Enrolled
004-190-047	Forest/ Open Space	General Forest (GF)	Not Enrolled

Development in the GF zoning district is required to be compatible with and preserve the natural environment and natural resources. Permitted uses within this zone include growing and harvesting of agricultural and forest products, livestock grazing, single-family residences and accessory buildings, and public utility distribution facilities. Allowable density within the GF zone district is one residence per 640 acres.

Potential Environmental Effects

- a) **No Impact.** No Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or Farmland of Local Importance occur in the project area. The Project area occurs on areas mapped as Other Land by the Farmland Mapping and Monitoring Program (California Department of Conservation 2020). The Project would not permanently convert farmland to a different use or otherwise affect the ability of the land to be used for farming. The Project would not include any rezoning activities. The Project would not include acquisition of permanent ROW. The Project may require permanent easements for the Project extents.
- b) **No Impact.** See Table 1 for Williamson Act contract and response for Item a).
- c) **Less Than Significant Impact.** Plumbago Road in the Project area traverses APNs 006-090-002, 006-090-003, 004-190-035, 004-190-046, and 004-190-047. Per Figure 9-1 of the County General Plan the Project area is not located in a designated ‘Timber Production Zone’. The County zoning for all Project parcels is GF (General Forest). The proposed Project is consistent with the existing zoning and does not include any rezoning activities.
 Access during construction, installation of the upstream detour, and bridge removal, would temporarily impact approximately 0.30 acre of Douglas fir forest. Construction of the new bridge would permanently impact approximately 0.02 acre of Douglas fir forest. The Project would remove 13 native trees, consisting of 3 white alder, 8 Douglas fir, and 2 incense cedar to support road approach work, the temporary detour, and the new bridge. The final tree removal determination would be made by the Sierra County Department of Public Works. The Project would potentially convert 0.02 acre of Douglas fir forest to non-forest use. Given the minor area that would be converted from forestland to a non-forest use the impact would be less than significant.
- d) **Less Than Significant Impact.** See response to Item c) above.
- e) **No Impact.** The Project is not anticipated to involve other changes in the existing environment that could result in conversion of farmland or forest land.

Mitigation Measures: None needed.

5.2.3 Air Quality

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?
- c) Expose sensitive receptors to substantial pollutant concentrations?
- d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Environmental Setting

The Project area is located in the Mountain Counties Air Basin (MCAB), within the jurisdiction of the Northern Sierra Air Quality Management District (NSAQMD). Most of the air pollution generated within the NSAQMD comes from local motor vehicle emissions and dust emissions resulting from ground disturbance and wildfire.

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

Congress established much of the basic structure of the Clean Air Act in 1970, and made major revisions in 1977 and 1990. The Federal Clean Air Act established national ambient air quality standards (NAAQS). These standards are divided into primary and secondary standards. Primary standards are designed to protect public health and secondary standards are designed to protect other values. Because of the health-based criteria identified in setting the NAAQS, the air pollutants are termed “criteria” pollutants. California has adopted its own, more stringent, ambient air quality standards (CAAQS). Sierra County is currently has unclassified/ attainment status for all NAAQS. The County is in nonattainment status for the PM₁₀ CAAQS. The NAAQS and CAAQS attainment status of Sierra County is presented in Table 2.

Table 2. Attainment Status for Sierra County

Pollutant	National Designation	State Designation
8-hour Ozone	Unclassified / Attainment	Unclassified
PM ₁₀	Unclassified	Nonattainment
PM _{2.5}	Unclassified / Attainment	Unclassified
CO	Unclassified / Attainment	Unclassified
NO ₂	Unclassified/ Attainment	Attainment
SO ₂	Unclassified / Attainment	Unclassified / Attainment
SO ₄	NA	Attainment
Lead	Unclassified / Attainment	Unclassified / Attainment
Hydrogen Sulfide	Unclassified / Attainment	Unclassified / Attainment
Visibility Reducing Particles	Unclassified / Attainment	Unclassified / Attainment

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

- **Rule 202 (Visible Emissions):** Prohibits the discharge of air contaminants for a period or periods aggregating more than three (3) minutes in any one (1) hour which is as dark or darker in shade as that designated as No. 1 on the Ringlemann Chart or such opacity as to obscure an observer's view to a degree equal to or greater to shade No. 1 on the Ringlemann Chart.
- **Rule 205 (Nuisance):** Prohibits the discharge of air contaminants which cause injury, detriment, nuisance, or annoyance.
- **Rule 207 (Particulate Matter):** A person shall not release or discharge into the atmosphere from any source or single processing unit, exclusive of sources emitting combustion contaminants only, particulate matter emissions in excess of 0.1 grains per cubic feet of dry exhaust gas at standard conditions.
- **Rule 210 (Specific Contaminants):** Limits the amount of sulfur carbon dioxide released in the atmosphere.
- **Rule 226 (Dust Control):** A dust control plan must be submitted to and approved by the Air Pollution Control Officer before topsoil is disturbed on any project where more than one (1) acre of natural surface area is to be altered or where the natural ground cover is removed.
- **Rule 227 (Cutback and Emulsified Asphalt Paving Materials):** A person shall not discharge to the atmosphere volatile organic compounds (VOC's) caused by the use or manufacture of Cutback or Emulsified asphalts for paving, road construction or road maintenance, unless such manufacture or use complies with the provisions of this Rule.
- **Rule 904 Asbestos Airborne Toxic Control Measure - Asbestos-Containing Serpentine:** Incorporates by reference the Asbestos Airborne Toxic Control Measure - Asbestos-Containing Serpentine adopted by the California Air Resources Board pursuant to Health and Safety Code Section 39666, as set forth in Section 93106 of Title 17 of the California Code of Regulations, effective July 19, 1991.

NSAQMD draft Guidelines for Assessing and Mitigating Air Quality Impacts of Land Use Projects (2016). The RCEM provides emissions thresholds to be used in determining the significance of project emissions. The NSAQMD 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. Project level thresholds of significance for specific pollutants of concern are as follows:

- ROG: greater than 136 pounds (lbs)/day
- NOx: greater than 136 lbs/day
- PM₁₀: greater than 136 lbs/day

Construction emissions were estimated for the Project using the Sacramento Metropolitan Air Quality Management District’s Road Construction Emissions Model (RCEM), Version 8.1. The RCEM was developed to estimate emissions from linear project types including road and bridge construction. The RCEM divides the project into four ‘Construction Periods’:

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

Based on similar County road and bridge projects, the assumptions presented in Table 3 regarding type of construction equipment were used in the RCEM. Other Project assumptions used in the RCEM include a total six-month construction schedule starting in 2018, and use of water trucks.

Table 3. Construction Equipment and Use Assumptions.

Construction Period	Equipment	
	Quantity	Type
Grubbing/ Land Clearing	2	Excavator
	1	Bulldozer
	1	Signal Board
Grading/Excavation	1	Crane
	1	Bulldozer
	2	Excavator
	1	Grader
	1	Roller
	1	Rubber Tired Loader
	1	Scraper
	1	Signal Board
	1	Backhoe
Drainage/Utilities/Sub-Grade	1	Air Compressor
	1	Generator Set
	1	Graders
	1	Plate Compactor
	1	Pump
	1	Forklift
	1	Scraper
	1	Signal Board
	1	Backhoe
Paving	1	Paver
	1	Paving Equipment
	1	Roller
	1	Signal Board
	1	Backhoe

Results of the RCEM based on the Project assumptions are in Table 4. If constructed after 2018 emissions would likely be similar to or less than those reported here due to construction fleet transitions

toward cleaner technologies including use of a Verified Diesel Emission Control Strategy such as diesel particulate filters.

Table 4. Estimated Construction Emissions (lbs/day)

Project Phases	ROG	CO	NOx	PM ₁₀	Exhaust PM ₁₀	Fugitive Dust PM ₁₀
Grubbing/land clearing	1.33	10.37	15.64	10.67	0.67	10.00
Grading/excavation	4.99	35.25	55.42	12.62	2.62	10.00
Drainage/utilities/sub-grade	4.08	30.97	39.32	12.15	2.15	10.00
Paving	1.21	11.07	12.27	0.72	0.72	--
Maximum	4.99	35.25	55.42	12.34	2.34	10.00
Significance Threshold	136	AAQS	136	136	N/A	N/A
Significant?	No	No	No	No	N/A	N/A

Notes: Data entered for emissions model: Project Start Year: 2018; Project Length (months): 6; Total Project Area (acres): 1.48; Total Soil Imported/Exported (yd³/day): 0. PM₁₀ estimates assume 50 percent control of fugitive dust from watering and associated dust control measures. Total PM₁₀ emissions are the sum of *exhaust* and *fugitive dust* emissions.

Potential Environmental Effects

- a) **No Impact.** The proposed Project was identified as Project 3L101 in the Sierra County 2015 Regional Transportation Plan, Table 15 (Sierra County Top Priority Roadway and Bridge Projects, STIP/RTIP/FTIP Improvement Projects - 2014 RTIP). It is currently identified in the 2020 Regional Transportation Plan, Table 10, as an in-progress project. Projects included in the Regional Transportation Plan have been determined to be consistent with the planning goals of the State Implementation Plan.
- b) **Less Than Significant Impact.** The County is in nonattainment status for the PM₁₀ CAAQS. Construction activities would result in short-term increases in emissions from the use of heavy equipment that generate dust, exhaust, and tire-wear emissions and from paints and coatings. Project construction would create temporary increases in ROG, NOx, and PM₁₀ emissions from vehicle and equipment operation. The RCEM estimates indicate that emission loads would be below the County’s significance threshold of 136 lbs/day each for ROG, NOx, and PM₁₀. The Project would not generate additional traffic on Plumbago Road. No increase in operational emissions would result from the Project. See also the response for Item a).

Potentially Significant Unless Mitigation Incorporated. No schools, parks, hospitals or nursing homes occur within one mile of the Project area. The closest residence is located approximately 1,600 feet north of the Project area. Construction-related emissions would be below County thresholds and short-term in nature. The Project would not generate additional traffic on Plumbago Road. No increase in operational emissions would result from the Project. Thus, sensitive receptors would not be exposed to substantial pollutant concentrations.

However, the ‘General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos’ shows the project site to be within an ultramafic rock area that may contain rocks with naturally occurring asbestos or NOA (California Department of Conservation 2000). This conclusion is supported by field observations made as part of the

Project Draft Foundation Report (Taber Consultants 2016). Per the Draft Foundation Report serpentinitized peridotite rock occurs at the southern bridge abutment, schist with a higher degree of serpentinitization occurs at the north abutments, and surficial serpentinitized rock was observed approximately 500 feet downstream of the bridge (Taber Consultants 2016).

Ultramafic rock units are igneous rocks formed in high temperature environments well below the Earth's surface. These units are exposed by uplift and erosion and can be partially to completely altered to serpentinite, a type of metamorphic rock. Various forms of NOA (the most common being chrysotile) can occur within these rock formations or along their boundaries. Natural weathering and human activities may disturb NOA-bearing rock or soil and release mineral fibers into the air, which may result in adverse health effects if inhaled.

The new bridge abutments would be supported by 3-foot-diameter piles. Installation of the piles would require drilling 3-foot-diameter holes to a depth of approximately 30 feet below ground surface. Excavations of the pile holes may generate significant bands of fibrous (asbestiform) minerals during construction if present. Other grading and excavation activities in the Project area could also result in the release of fibrous (asbestiform) minerals.

The California Air Resources Board (ARB) has adopted two Airborne Toxic Control Measures (ATCMs) for naturally occurring asbestos. The first is the Asbestos ATCM for Surfacing Applications and the second is the Asbestos ATCM for Construction, Grading, Quarrying, and Surface Mining Operations. The Asbestos ATCM for Surfacing Applications restricts the asbestos content of material used in surfacing applications such as unpaved roads, parking lots, driveways, and walkways. NSAQMD Rule 904 incorporates the Asbestos ATCM for Surfacing Applications by reference. The Asbestos ATCM for Surfacing Applications / Rule 904 prohibits the sale or use of restricted material for unpaved surfacing unless it has been tested and found to have an asbestos content that is less than 0.25 percent. The Project would be required to comply with the Asbestos ATCM for Surfacing Applications/Rule 904.

The Asbestos ATCM for Construction, Grading, Quarrying, and Surface Mining Operations requires the implementation of mitigation measures to minimize emissions of asbestos-laden dust. The ATCM requires slightly different measures for road construction and maintenance projects than it does for construction and grading operations. A construction and grading project with greater than one acre of ground disturbance is required to prepare an Asbestos Dust Mitigation Plan. The ATCM does not require preparation of an Asbestos Dust Mitigation Plan for road construction and maintenance projects.

The proposed Project is the replacement of an existing bridge and thus falls under the road construction and maintenance category. The ATCM requires general measures to reduce dust emission. Measure AQ-1 is based on the measures contained in Sections (b)(1) of the Asbestos ATCM for Construction, Grading, Quarrying, and Surface Mining Operations. With implementation of Measure AQ-1 exposure of sensitive receptors would be reduced and potential project impacts would be less than significant.

- c) ***Less Than Significant Impact.*** Construction activities would involve the use of construction equipment and asphalt paving, which have distinctive odors. Construction-related odors would

be considered less than significant because of the short-term nature of the emissions and limited number of potentially affected persons.

Mitigation Measures:

Measure AIR-1 (Naturally Occurring Asbestos)

- *Notify in writing the Northern Sierra Air Management District, Air Pollution Control Officer (APCO) at least fourteen (14) days before the beginning of the activity.*
- *All the following dust control measures will be implemented during any project construction:*
 - *Unpaved areas subject to vehicle traffic must be stabilized by being kept adequately wetted, treated with a chemical dust suppressant, or covered with material that contains less than 0.25 percent asbestos;*
 - *The speed of any vehicles and equipment traveling across unpaved areas must be no more than fifteen (15) miles per hour unless the road surface and surrounding area is sufficiently stabilized to prevent vehicles and equipment traveling more than 15 miles per hour from emitting dust that is visible crossing the project boundaries;*
 - *Storage piles and disturbed areas not subject to vehicular traffic must be stabilized by being kept adequately wetted, treated with a chemical dust suppressant, or covered with material that contains less than 0.25 percent asbestos; and*
 - *Activities must be conducted so that no track-out from any road construction project is visible on any paved roadway open to the public.*
 - *Equipment and operations must not cause the emission of any dust that is visible crossing the project boundaries.*

5.2.4 Biological Resources

Would the project:	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Environmental Setting

Potential impacts to biological and wetlands resources were evaluated in the following technical reports:

- Natural Environment Study (NES, Sycamore Environmental 2017a)
- Wetland Study/Jurisdictional Delineation Report (Sycamore Environmental 2017b)

The NES and the Wetland Study are in standard Caltrans report formats for documenting and evaluating the potential Project impacts to biological resources. The NES concludes the following regarding biological resources:

- The Project Area is in the range for federal-endangered and state-threatened Sierra Nevada yellow-legged frog (SNYLF; *Rana sierrae*), but does not contain suitable habitat for this species. The Project area occurs in the lower elevation range for SNYLF and is outside final designated critical habitat for this species. Flows in Kanaka Creek are too fast to provide suitable breeding habitat for SNYLF. The Project area is located in an area of steep topography and there are no potential breeding sites that are hydrologically connected to, or within dispersal distance of, the Project area. The Project would not affect SNYLF.
- Kanaka Creek provides habitat for the state endangered foothill yellow-legged frog (FYLF; *Rana boylei*). FYLF was not observed in the Project area during the biological survey. The Project would not impact Kanaka Creek.
- The Project area does not provide habitat for federal-listed or proposed plants.
- The Project would have no effect on other federal-listed or proposed species.
- The Project area is located in the Upper Yuba Hydrologic Unit (Hydrologic Unit Code 18020125). The Upper Yuba USGS hydrologic unit is designated as Essential Fish Habitat (EFH) for Pacific salmon as described in Amendment 14 of the Pacific Salmon Fishery Management Plan pursuant to the Magnuson-Stevens Fishery Conservation and Management Act (NMFS 2014). The Project area is above New Bullard’s Bar Dam, a complete barrier to fish. The Project area is not located within the boundaries of a Chinook salmon Evolutionarily Significant Unit (ESU) or a steelhead Distinct Population Segment (DPS) and does not occur in designated critical habitat. The Project would not result any impacts which would reduce the quality and/or quantity of EFH. The Project would have no adverse effect to EFH.
- The Project area provides suitable habitat for California species of special concern, western pond turtle (WPT; *Emys marmorata*), northern goshawk (*Accipiter gentilis*), yellow warbler

(*Setophaga petechial*), California spotted owl (*Strix occidentalis occidentalis*), and Townsend’s big-eared bat (*Corynorhinus townsendii*).

- The Project area provides potential habitat for seven special-status plants ranked by the California Native Plant Society (CNPS). No special-status plants were observed during the botanical survey conducted during the evident and identifiable period. The Project would not affect special-status plant species.
- Eighteen invasive plant species were observed in the Project area (California Invasive Plant Council, Cal-IPC 2016). Himalayan blackberry (*Rubus armeniacus*) is the only invasive species in the Project area rated as “High” by Cal-IPC for its ecological impact (2016). Temporarily impacted areas would be revegetated with native or sterile nonnative species to reduce the spread of invasive species. The limited scope of this Project would preclude effective eradication of these invasive species from the Project area and surrounding areas.
- A preliminary jurisdictional delineation of wetlands and waters (separately bound) was conducted. Kanaka Creek is the only potential waters of the U.S. in the Project area. There would be no permanent or temporary impacts to Kanaka Creek. The Project would not result in fill of Kanaka Creek. Work would be conducted from the banks or bridge deck, above the Ordinary High Water Mark (OHWM) of Kanaka Creek. No creek access would be necessary. Channel modifications and bank alterations would not be required. A temporary containment system would be installed from the existing bridge deck to prevent any construction debris from entering the creek. Minor vegetation trimming may be necessary for access prior to construction of the temporary detour bridge and removal of the existing bridge. A 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife (CDFW) will be required for work in the stream zone.

Biological communities that occur in the Project area and anticipated impacts are shown in Table 5 (Sycamore Environmental 2017a).

Table 5. Natural Communities and Potential Project Impacts

Biological Community	Acreage	Temporary Impact (acre)	Permanent Impact (acre)
Douglas-Fir Forest	1.14	0.30	0.02
Kanaka Creek	0.14	0	0
Disturbed Areas / Roads ¹	0.20	--	--
Total:	1.48	0.30	0.02

Notes:

¹ No impacts are calculated for developed areas.

Potential Environmental Effects

a) **Potentially Significant Unless Mitigation Incorporated.**

Special-Status Plants: The Project area does not provide habitat for federal-listed plant species. The Project area provides potential habitat for seven special-status plants ranked by the

California Native Plant Society (CNPS). These species were not observed in the Project area during a botanical survey conducted during the evident and identifiable period. No impacts would occur.

Sierra Nevada Yellow-Legged Frog (*Rana sierrae*, *SNYLF*): SNYLF was not observed in the Project area during the biological survey. The Project area does not provide aquatic breeding habitat for SNYLF. SNYLF breed in permanent water bodies, or those that are hydrologically connected to or in close proximity to permanent water bodies. When they occur in stream habitats, SNYLF are associated with low-gradient streams. Breeding habitat must provide suitable conditions year-round to support the entire tadpole growth phase, including the absence of introduced predators.

Kanaka Creek in the Project area is a fast-flowing, steep gradient, high energy stream fed in the spring by snow melt and precipitation runoff which creates substantial scouring on the riverbed. Fluctuations in water flow and velocity can result in the stranding of eggs and tadpoles, injury or mortality in amphibians, and discouraged oviposition. In addition, multiple fishing websites suggest the presence of introduced predators, such as brown trout and rainbow trout, in Kanaka Creek.

The Project area is located in an area of steep topography and there are no potential breeding sites that are hydrologically connected to, or within dispersal distance of, the Project area.

The Project area does not provide aquatic nonbreeding habitat for SNYLF. Aquatic nonbreeding habitat includes over-wintering habitat and should provide shelter, foraging, predator avoidance, and dispersal opportunities for SNYLF. Aquatic nonbreeding habitat for SNYLF usually occurs in the same locale as aquatic breeding habitat. There is no suitable aquatic breeding habitat within dispersal distance of the Project area. During the active season, SNYLF spend a majority of the day basking in the sun or concentrated along warm shorelines. The segment of Kanaka Creek in Project area flows through a steep ravine dominated by dense coniferous forest. As such, Kanaka Creek is heavily shaded most of the day, and provides little to no basking sites for SNYLF.

SNYLF are not expected to occur in the Project area. No temporary or permanent impacts to Kanaka Creek are anticipated. No piers or abutments would be constructed below the OHWM of Kanaka Creek. Areas that would be permanently impacted in the Project area would be limited to upland habitat. All temporarily impacted areas would be restored and revegetated. As a result, Project impacts to SNYLF would be less than significant.

Foothill Yellow-Legged Frog (*Rana boylei*): FYLF was not observed in the Project area during the biological survey. Kanaka Creek in the Project area provides habitat for FYLF. No temporary or permanent impacts to Kanaka Creek are anticipated. No piers or abutments would be constructed below the OHWM of Kanaka Creek. Areas that would be permanently impacted in the Project area would be limited to upland habitat. All temporarily impacted areas would be restored and revegetated. Implementation of Measure BIO-1 would ensure that Project impacts to FYLF would be reduced to less than significant. Measure BIO-6 would also reduce potential impacts to FYLF.

Western Pond Turtle (*Emys marmorata*): Kanaka Creek in the Project area provides marginal habitat for WPT due to rapid flows and limited basking sites along Kanaka Creek. WPT was not observed in the Project area during the biological survey. No temporary or permanent impacts to Kanaka Creek are anticipated. No piers or abutments would be constructed below the OHWM of Kanaka Creek. Areas that would be permanently impacted in the Project area would be limited to upland habitat. All temporarily impacted areas would be restored and revegetated. Implementation of Measure BIO-2 would ensure that Project impacts on WPT would be reduced to less than significant. Measure BIO-6 would also reduce potential impacts to WPT.

Migratory Birds and Birds of Prey: No active nests were found within the Project area during the surveys. The Project area provides potential nesting habitat for birds of prey and birds listed by the MBTA. Implementation of Measure BIO-3 would ensure that Project impacts would be reduced to less than significant.

Northern Goshawk (*Accipiter gentilis*): Northern goshawk was not observed in the Project area during the biological survey. While coniferous forest nesting habitat occurs in the Project area, nest sites are not typically found in proximity to roads and human habitation. Northern goshawk would be unlikely to nest in the Project area due to human activity on Plumbago Road. Implementation of Measure BIO-3 would reduce potential impacts to less than significant.

Yellow Warbler (*Setophaga petechia*): Yellow warblers were not observed in the Project area during the biological survey. The Project area provides marginal habitat for yellow warbler due to minimal riparian vegetation. Much of the forest beyond the creek edge lacks substantial understory shrub cover. Implementation of Measure BIO-3 would reduce potential impacts to less than significant.

California Spotted Owl (*Strix occidentalis occidentalis*): California spotted owls were not observed in the Project area during the biological survey. The Project area lacks the large diameter trees associated with California spotted owl nesting habitat. Of the 115 trees mapped in the Project area, only 4 are greater than 24 inches diameter at breast height (dbh), with the greatest dbh at 36 inches. California spotted owl are unlikely to nest in the Project area due to a lack of large diameter trees and due to human activity along Plumbago Road. Implementation of Measure BIO-3 would reduce potential impacts to less than significant.

Bats: The existing Plumbago Road bridge provides potential roosting habitat for bats. Due to a lack of crevices, the bridge is most suitable as night roosting habitat. No bats or evidence of bats was observed during the survey. Bats could establish on the bridge prior to construction. Implementation of Measure BIO-4 would reduce potential impacts to less than significant.

Townsend's Big-eared Bat (*Corynorhinus townsendii*): Townsend's big-eared bat was not observed in the Project area during the biological survey. The existing Plumbago Road bridge does not provide the cave-like structure necessary for a maternity or hibernation colony. The existing bridge could provide suitable night roosting habitat. Implementation of Measure BIO-4 would reduce potential impacts to less than significant.

- b) **Potentially Significant Unless Mitigation Incorporated.** Kanaka Creek is a natural community of special concern in the Project area. Tree removal from the Douglas fir forest within the project limits is discussed below. Kanaka Creek in the Project area is a potential waters of the U.S. and is discussed under Item c) below.

Approximately 1.14 acres of Douglas-fir forest occur along Plumbago Road and the slopes surrounding Kanaka Creek in the Project area. Access during construction, construction and removal of the temporary bridge detour, removal of the existing bridge, and construction of the new bridge would temporarily impact approximately 0.30 acre and permanently impact approximately 0.02 acre of Douglas-fir forest. The Project is expected to remove 13 native trees, consisting of 3 white alder, 8 Douglas fir, and 2 incense cedar. Implementation of Measure BIO-5 would reduce potential impacts to less than significant. Measure BIO-6 would also reduce potential impacts to Douglas-fir forest and native trees.

- c) **Potentially Significant Unless Mitigation Incorporated.** Kanaka Creek is a natural community of special concern because it is a waters of the U.S. There would be no permanent or temporary impacts to Kanaka Creek. The Project would not result in fill of Kanaka Creek. Work would be conducted from the banks or bridge deck, above the OHWM of Kanaka Creek. No creek access would be necessary. Channel modifications and bank alterations would not be required. A temporary containment system would be installed from the existing bridge deck to prevent any construction debris from entering the creek. Minor vegetation trimming may be necessary for access prior to construction of the temporary detour bridge and removal of the existing bridge. No work below the OHWM of Kanaka Creek would be necessary. Implementation of Measure BIO-6 would reduce potential impacts to less than significant.
- d) **Less Than Significant Impact.** Construction of the Project could temporarily disrupt movement of native wildlife species that occur in or adjacent to the Project area. Although construction disturbance may temporarily hinder wildlife movements within the Project area, the impact would be less than significant due to its short-term nature.
- e) **No Impact.** The Project is not located in a County designated biological resource ‘Special Treatment Area’ (i.e., deer migration and or critical deer winter/summer fawn areas). The Project is consistent with the County’s policies or ordinances protecting biological resources.
- f) **No Impact.** The Project is not located in an area covered by a habitat or natural community conservation plan.

Mitigation Measures:

Measure BIO-1 (Foothill yellow-legged frog [FYLF])

- *A preconstruction survey for FYLF will be conducted immediately prior to the initiation of construction activities on the banks of Kanaka Creek. The preconstruction survey will be conducted by a biologist experienced with amphibian and reptile surveys in California. If FYLF are not found, construction will proceed. If FYLF are found, construction will not proceed on the banks of Kanaka Creek until the biologist verifies that individuals have left on*

their own, that work activities will not affect the individuals, or the biologist has moved the frog out of the construction zone.

- *Prior to the start of construction, a biologist will conduct a training session for all construction personnel that includes a description of FYLF, their habitat, and how to proceed if a suspected special-status species is encountered. The training will also describe the specific measures being implemented to avoid adverse effects to these species.*
- *All vegetation scheduled for removal on the banks of Kanaka Creek will be removed by hand or with hand tools, such as chain saws. After the vegetation has been removed, and a survey confirms the absence of FYLF, stumps and roots may be removed using mechanized vehicles and equipment.*
- *A qualified biologist will be present to monitor for FYLF during ground-disturbing or vegetation removal activities on the banks of Kanaka Creek.*
- *During construction, if a FYLF is observed in the active construction zone, construction will cease and a qualified biologist will be notified. Construction will resume when the biologist has either relocated the FYLF to nearby suitable habitat outside the construction zone, or, after thorough inspection, determined that the FYLF has moved away from the construction zone.*
- *Fueling and equipment maintenance activities shall be a minimum of 100 feet from Kanaka Creek. A toxic materials control and spill-response plan will be developed and implemented for the Project.*
- *To eliminate the attraction of potential predators of FYLF and avoid degradation of its habitat, all food-related trash items such as wrappers, cans, bottles, and food scraps will be disposed of in closed containers and removed from the project site at the end of each working day.*
- *Plastic monofilament netting (“poly netting”) or similar material containing netting that could result in the entanglement or death of wildlife, including FYLF, will not be used at the project site. Acceptable substitutes include coconut coir matting or tackified hyro seeding compounds.*

Measure BIO-2 (Western Pond Turtle [*Emys Marmorata*])

- *A preconstruction survey for WPT will be conducted immediately prior to the initiation of construction activities on the banks of Kanaka Creek. The preconstruction survey will be conducted by a qualified biologist experienced with reptile surveys in California. If WPT are not found, construction will proceed. If WPT are found, construction will not proceed on the banks of Kanaka Creek until the biologist verifies that the individuals have left on their own, that work activities will not affect the individuals, or the biologist has moved the turtle out of the construction zone.*
- *Prior to start of construction, a biologist will conduct a training session for all construction personnel that includes a description of WPT, their habitat, and how to proceed if a suspected special-status species is encountered. The training will also describe the specific measures being implemented to avoid adverse effects to these species.*

Measure BIO-3 (Migratory Birds and Birds of Prey)

Under the MBTA, nests that contain eggs or unfledged young are not to be disturbed during the breeding season. Nesting or attempted nesting by migratory birds and birds-of-prey is anticipated from 15 February to 31 August.

Bridge-Nesting Birds

In California, bridge-nesting swallows typically arrive in mid-February, increase in numbers until late March, and remain until October. Nesting begins in April, peaks in June, and continues into August. Although swallows are unlikely to nest on the Plumbago Road Bridge, other migratory birds may attempt to nest under the bridge. Black phoebes and Steller's jays occur in the area and are known to nest on bridges. Measures should be taken to prevent establishment of nests prior to construction. Techniques to prevent nest establishment include using exclusion devices, removing and disposing of partially constructed and unoccupied nests of migratory or nongame birds on a regular basis to prevent their occupation, or perform any combination of these. This can be done by:

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

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

- *If construction begins outside the 15 February to 31 August breeding season, there will be no need to conduct a preconstruction survey for active nests.*
- *Vegetation scheduled for removal should be removed during the non-breeding season from 1 September to 14 February. Vegetation removal includes trees and vegetation within the stream zone. Within the stream zone, vegetation will be removed using hand tools, including chain saws and mowers, and may be trimmed several inches above the ground with the roots left intact to prevent erosion.*
- *If construction or vegetation removal begins between 15 February and 31 August, a biologist shall conduct a survey for active bird of prey nests within 250 feet and active nests of all other MBTA-protected birds within 100 feet of the Project area from publicly accessible areas within two weeks prior to construction. The measures listed below shall be implemented based on the survey results.*

No Active Nests Found:

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

Active Nests Found:

- *If an active nest of a bird of prey, MBTA bird, or other CDFW protected bird is discovered that may be adversely affected by construction activities or an injured or killed bird is found, immediately:*
 - *Stop all work within a 100-foot radius of the active nest*

- *Notify the Engineer*
- *Do not resume work within the specified radius of the discovery until authorized.*
- *The biologist shall establish a minimum 250-foot Environmentally Sensitive Area (ESA) around the nest if the nest is of a bird of prey, and a minimum 100-foot ESA around the nest if the nest is of an MBTA bird other than a bird of prey.*

Species Protection Areas

Identification	Location
<i>Bird of Prey</i>	<i>250-foot no-disturbance buffer</i>
<i>MBTA protected bird (not bird of prey)</i>	<i>100-foot no-disturbance buffer</i>

- *Activity in the ESA will be restricted as follows:*
 - *Do not enter the ESA unless authorized.*
 - *If the ESA is breached, immediately (1) Secure the area and stop all operations within 100 feet of the ESA boundary, and (2) Notify the Engineer.*
 - *If the ESA is damaged, the County determines what efforts are necessary to remedy the damage and who performs the remedy.*
- *No construction activity shall be allowed in the ESA until the biologist determines that the nest is no longer active, or unless monitoring determines that a smaller ESA will protect the active nest.*
- *The ESA may be reduced if the biologist monitors the construction activities and determines, in consultation with CDFW, that no disturbance to the active nest is occurring. Reduction of the ESA depends on the species of bird, the location of the nest relative to the project, project activities during the time the nest is active, and other project-specific conditions.*
- *Between 15 February and 31 August, if additional trees or shrubs need to be trimmed and/or removed after construction has started, a survey will be conducted for active nests in the area to be affected. If an active nest is found, the above measures will be implemented.*
- *If an active nest is identified in or adjacent to the construction zone after construction has started, the above measures will be implemented to ensure construction is not causing disturbance to the nest. If the biologist determines that disturbance to the active nest is occurring they will have authority to stop construction.*

Measure BIO-4 (Bats)

The following measures will be implemented to avoid and minimize impacts to bats:

- *Within the year prior to construction, the bridge shall be inspected for bats and/or bat sign. If evidence of bats is observed, exclusion measures using one-way exits shall be implemented. Bat exclusion must be complete prior to installation of netting for bird exclusion.*
 - *Exclusion devices shall be installed between 1 September and 1 November, which is outside of the maternity and hibernation season.*
 - *If it is determined that the bats are not using the bridge as a maternity or hibernation site, exclusion devices may be installed at any time.*
 - *Exclusion devices shall remain in place until demolition of the bridge.*

- *If exclusion devices are not installed during the specified windows, a survey shall be conducted within 2 weeks prior to construction to determine bat use of the bridge.*
 - *If no bats and/or bat sign is observed, no further avoidance and minimization measures are necessary.*
 - *If it is determined that bats are using the bridge as a maternity or hibernation roost, CDFW shall be contacted to determine an appropriate avoidance buffer.*
 - *The avoidance buffer may be reduced if a qualified biologist monitors the construction activities and determines that no disturbance to the roost is occurring. Reduction of the buffer depends on the species of bat, the location of the roost relative to project activities, activities during the time the roost is active, and other project-specific conditions.*
 - *No work shall occur in the buffers until it is determined that the bats have left on their own, or until the end of the hibernation or maternity season, at which time exclusion devices can be installed.*
- *If it is determined that the bats are not using the bridge as a maternity or hibernation site, exclusion devices shall be installed a minimum of 48 hours prior to construction to ensure the bats have time to leave before construction begins.*
- *Exclusion devices shall remain in place until demolition of the bridge.*

Measure BIO-5 (Douglas Fir Forest/Trees)

- *Vegetation removal will be minimized to the maximum extent feasible. Prior to construction, the limits of vegetation removal will be marked with temporary fencing or flagging.*
- *The limits of construction will be fenced by the County or Contractor to minimize impacts on retained trees. Trucks and other vehicles will not be allowed to park beyond, nor shall equipment be stored beyond, the fencing. No vegetation removal or ground disturbing activities will be permitted beyond the fencing. Incorporation of this measure will help ensure that trees are not impacted beyond what is permitted by construction entitlements.*
- *Temporarily impacted areas will be revegetated in accordance with the Revegetation Planting and Erosion Control Specifications (Appendix F) of the Project's Natural Environment Study.*

Measure BIO-6 (Kanaka Creek)

- *Prior to the start of construction, a containment system will be installed to keep project-related debris from entering Kanaka Creek. Installation of the containment system will take place above the OHWM of Kanaka Creek, from the banks or from the existing bridge deck.*
- *During construction, water quality will be protected by implementation of Best Management Practices (BMPs) consistent with the latest version of Caltrans' Construction Site Best Management Practices (BMPs) Manual and the Stormwater Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual (2017) to minimize the potential for siltation and downstream sedimentation of Kanaka Creek.*
- *Construction vehicles and equipment will be maintained to prevent contamination of soil and water from external grease and oil and from leaking hydraulic fluid, fuel, oil, and grease.*

- *The County will implement best management practices outlined in any authorizations or environmental permits issued for the Project.*

5.2.5 Cultural Resources

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

To qualify for listing in the California Register of Historic Resources (CRHR or California Register) and to be considered a historical resource for the purposes of CEQA, a resource must meet one or more of the criteria set forth in PRC 5024.1 and the California Code of Regulations (CCR Title 14, Chapter 11.5, § 4850 et seq). Criteria include:

- **Criteria 1:** Association with events that have made a significant contribution to broad patterns of local or regional history;
- **Criteria 2:** Association with the lives of persons important to local, California, or national history;
- **Criteria 3:** Embodies the distinctive characteristics of a type, period, or region, has high artistic value, or is the work of master;
- **Criteria 4:** Has potential to yield information important to prehistory or history

The criteria for the National Register of Historical Places (National Register or NRHP) are nearly identical to the California Register. If Project construction were to cause a substantial adverse change in the significance of a historical resource or archaeological resource eligible for listing on the National or State Register, then the Project would be considered to have a significant effect on the environment.

Francis Heritage, LLC (Francis Heritage) prepared an Historic Property Summary Report (HPSR) for the Project which includes an Archaeological Survey Report (ASR) and Historic Resource Evaluation Report (HRER) (Francis Heritage 2019). Caltrans approved the HPSR package on 25 September 2019.

The ASR included a records search, literature review, an intensive pedestrian survey, and consultation with the Native American community and local preservation societies. No prehistoric archaeological resources were found within the Project area.

The purpose of the HRER is to identify built environment resources that are 50 or more years old within the Project area and evaluate eligibility for listing in the National Register and the California Register. The HRER evaluates three cultural resources:

- Ophir Mine 5-Stamp Mill Battery
- Pony Truss Bridge over Kanaka Creek
- Plumbago Road Bridge over Kanaka Creek

The Plumbago Road Bridge over Kanaka Creek was previously evaluated by Caltrans as a Category 5 and is not eligible for listing on the National Register. The Ophir Mine 5-Stamp Mill Battery and the Pratt Pony Truss Bridge appear eligible for listing on the National Register and to be historical resources for the purposes of CEQA.

The proposed Project has been designed to avoid impacts to both the Ophir Mine 5-Stamp Mill Battery and the Pratt Pony Truss Bridge. An Environmental Sensitive Area (ESA) Action Plan has been prepared to ensure no damage would occur to the historic resources in the Project area during construction of the new bridge (thereby avoiding direct or indirect impacts to the value of the resources in their entirety). Protective measures would include installation of fencing or other clear markers, access restrictions, and specific contractual language to ensure that construction contractors comply with the ESA Action Plan.

Potential Environmental Effects

- a) **No Impact.** No historic or prehistoric archaeological resources were discovered in the Project area (Francis Heritage 2017). A 1960s trash scatter was observed in the project area. It that appears to be associated with camping and is approximately 50 years old but lacks specific associations the would make it eligible for listing on the National or California registers. No eligible built environment resources occur in the Project area.
- b) **No Impact.** An intensive pedestrian survey and records search were conducted in support of the ASR. No historic or prehistoric archaeological resources were discovered in the Project area (Francis Heritage 2017). A 1960s trash scatter was observed in the project area. It appears to be associated with camping and is approximately 50 years old but lacks specific associations that would make it eligible for listing on the National or California registers.
- c) **Less Than Significant Impact.** The Project’s ASR documents that no cemeteries or burials were observed or known within the project study area (Francis Heritage 2017). There is the possibility of accidental discoveries of human remains during construction-related ground-disturbing activities. Adherence to the existing procedures identified in State Health and Safety Code Section 7050.5, Public Resources Code Section 5097.9, and Public Resources Code Section 5097.5 are required for all County projects with possibility of accidental discoveries.

5.2.6 Energy

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

- b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Environmental Setting

Sierra County roadway and bridge projects identified in the 2020 RTP are maintenance and safety projects for existing roadways and bridges not new roadways which growth inducing and potentially result in an increase in vehicle mile traveled (VMT) in the County and unnecessary energy consumption.

Potential Environmental Effects

- a) ***Less Than Significant.*** The Project would not introduce any new operational energy demands to the project area. All construction equipment would be regulated per the California Air Resources Board (CARB) In-Use Off-Road Diesel Vehicle Regulation. CARB standards for construction equipment includes measures to reduce emissions from vehicles by subjecting fleet owners to retrofit or accelerated replacement/repower requirements and imposing idling limitations on owners, operators, renters, or lessees of off-road diesel vehicles. Project construction would also be required to comply with all applicable NSAQMD rules and regulations. Future road and bridge maintenance activities (e.g., vegetation control, street sweeping etc.) would likely involve the use of electric or gas-powered equipment.

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

- b) ***No Impact:*** The 2016 public review draft of the Sierra County Energy Action Plan (EAP) is a roadmap for expanding energy-efficiency, water-efficiency, and renewable-energy efforts already underway in Sierra County (Sierra Business Council 2016). The draft EAP builds upon efforts begun in 2006 with the County General Plan Housing Element Update and work conducted by Sierra Business Council (SBC) between 2010 and 2012 to assist Sierra County in developing a Climate Action Plan to address (1) the Global Warming Solutions Act of 2006, (2) Assembly Bill 32 (AB 32) which requires the State to reduce its greenhouse gas emissions to 1990 levels by 2020, and (3) Senate Bill 32 (SB 32) which requires the State to reduce its greenhouse gas emissions to 40 percent below 1990 levels by 2020. The EAP focuses on three community energy use sectors within unincorporated Sierra County – residential, non-residential, and municipal (which is a subset of non-residential). The report only evaluates energy consumed by buildings and municipal operations within unincorporated Sierra County; other energy consuming sectors such as transportation are not addressed but could be at a future date. The Project includes replacement of an existing bridge and would not interfere with or be inconsistent with the County’s goals, strategies and actions that support the efforts of residents and business owners in unincorporated Sierra County to increase their energy efficiency, increase their generation and use of renewable energy, and reduce water waste.

5.2.7 Geology and Soils

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Regional and Site Geology:

Information related to the regional and local geology of the site is contained in the Project Draft Foundation Report (Taber 2016).

Regional: The site is mapped as part of the Feather River Peridotite Belt, a Paleozoic to early Mesozoic low grade metamorphic belt with ultramafic source rock. The rocks mapped at or near the site are Paleozoic peridotite that is partially to completely serpentized and schists of unknown age consisting of quartz, mica, and hornblende. The peridotite belt is located within the Melones Fault Zone, the eastern-most element of the Foothill Fault system of the western Sierra Nevada. The fault is considered inactive by the USGS and Caltrans. The fault zone is approximately 3.5 miles wide at the project site (Taber 2016).

Site: The rock of the southern abutment is partially serpentized peridotite with little to no schistosity. Rock outcrops at the southern abutment and in the adjacent creek bank are near vertical and shows varying degrees of low-grade metamorphism. More surficial serpentized rock is found approximately 500 feet downstream of the site. A thin fill layer of angular gravelly silt with sand is at the surface on the southern side of the creek.

The rock of the northern abutment is schist with a higher degree of serpentization than the southern abutment. The schist is moderately soft and brittle. Natural fluvial soils containing andesitic cobbles and boulders sit atop the schist down to approximately 24 feet below ground surface. The fluvial deposit extends to the surface near the creek bank, but is covered with fine fill material in the open, non-vegetated area further north.

Published mapping shows the project site to be within an ultramafic rock area that may contain rocks with naturally occurring asbestos (NOA) (California Department of Conservation 2000). NOA is discussed in the Air Quality section of this Initial Study.

No evidence of significant geologic hazards (such as “large-scale” landslides, faulting, volcanoes, settlement, very soft soils, severe erosion, subsidence, etc.) was observed within the project site (Taber 2016).

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.

No mapped Alquist-Priolo Earthquake Fault Zones occur in Sierra County. Surface fault rupture is associated with being located on or within close proximity of an active fault. Because the County is not within, and does not cross, an Alquist-Priolo Earthquake Fault Zone, the risk of surface fault rupture within the County is considered low.

Sierra County is not located in a seismic hazard zone (Alquist-Priolo Earthquake Fault Zone) and is not considered to be at risk from landslides as a result of active faulting. Portions of the County with steep slopes (20 percent or greater) have an increased potential for non-seismic related landslides/ snow slides associated with high rainfall or snowmelt.

Potential Environmental Effects

a) ***a-i) No Impact.*** No mapped Alquist-Priolo Earthquake Fault Zones occur in Sierra County (California Department of Conservation 2024). Surface fault rupture is associated with being located on or within close proximity of an active fault. Because the County is not within, and does not cross, an Alquist-Priolo Earthquake Fault Zone, the risk of surface fault rupture within the County is considered low.

a-ii) No Impact. The Project is not in a seismic hazard zone (California Department of Conservation 2024).

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

a-iv) No Impact. No portion of Sierra County occurs in a Seismic Hazard Zone (i.e., regulatory zones that encompass areas prone to liquefaction and earthquake-induced landslides) based on the Seismic Hazards Mapping Program administered by the California Geologic Survey (CGS).

Consequently, Sierra County and the Project site are not considered to be at risk from earthquake-induced landslides.

- b) **Less Than Significant Impact.** Measures BIO-1, BIO-5, and BIO-6 would require implementation of BMPs consistent with the latest version of Caltrans' Construction Site Best Management Practices (BMPs) Manual and the Stormwater Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual (Caltrans 2017) to protect water quality and minimize the potential for siltation and downstream sedimentation. Construction activities would include implementation of stormwater runoff BMPs. Application of these requirements and measures would prevent substantial erosion or topsoil loss. Areas temporarily disturbed would be revegetated and reseeded with native grasses and other native herbaceous annual and perennial species. No seed of nonnative species would be used unless certified to be sterile.
- c) **Less Than Significant Impact.** No evidence of significant geologic hazards (such as "large-scale" landslides, faulting, volcanoes, settlement, very soft soils, severe erosion, subsidence, etc.) was observed within the project site (Taber 2016). Due to the presence of shallow rock, the potential for liquefaction is low to non-existent. Seismically induced settlement is not anticipated and is not expected to be a significant concern for the proposed structure. The potential for surface fault rupture (and associated ground displacement) at the site is considered low.
- d) **Less Than Significant Impact.** Expansive soils that may swell enough to cause problems with paved surfaces are generally clays falling into the AASHTO A-6 or A-7 groups, or classified as CH, MH, or OH by the Unified Soil Classification System (USCS), and with a Plasticity Index greater than about 25 as determined by ASTM D4318. Chapter 610 of the Caltrans Highway Design Manual defines expansive subgrade to include soils with a Plasticity Index greater than 12 (Caltrans 2023).
USCS classification for the soils in the Project area are gravelly silt with sand (ML), poorly graded gravel (GP), clayey silt with gravel (ML/ CL), and sandy lean clay with gravel (CL) (Taber 2016). These soil types are not generally known to be expansive. The Project would be designed in accordance with the Caltrans Highway Design Manual which includes consideration of expansive soils as applicable. Therefore, Project impacts would be less than significant.
- e) **No Impact.** The proposed Project is a surface transportation project. Septic tanks and alternative wastewater disposal systems are not part of the Project.
- f) **Less Than Significant Impact.** A query of the University of California, Museum of Paleontology (UCMP) was run to determine if any fossils are known to occur in or near Project Area. The query returned 5 fossil records in Sierra County (UCMP 2017). There are no recorded fossil locations in the Project area (UCMP 2017).
There is the possibility of accidental paleontological discoveries during construction-related ground-disturbing activities. Adherence to the existing procedures identified in State Health and Safety Code Section 7050.5, Public Resources Code Section 5097.9, and Public Resources Code Section 5097.5 are required for all County projects with possibility of accidental discoveries.

5.2.8 Greenhouse Gas Emissions

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

Environmental Setting

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

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

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

The Northern Sierra Air Management District was formed in 1986 by the merging of the Air Pollution Control Districts of Nevada, Plumas and Sierra Counties (NSAQMD). The NSAQMD has not established Thresholds of Significance for construction or operational related GHG emissions. Given the lack of locally adopted GHG emissions significance thresholds the Placer County Air Pollution Control District (Placer APCD) thresholds are being used here. Placer APCD GHG Emissions Significance Thresholds are listed in Table 5. The NSAQMD was contacted on 22 August 2017 and verified that use of the Placer APCD GHG Emissions Significance Thresholds is appropriate for this Project.

On October 13, 2016, the Placer APCD Board of Directors adopted the Review of Land Use Projects under CEQA Policy (Policy). The Policy establishes the thresholds of significance for criteria pollutants as well as greenhouse gases and the review principles which serve as guidelines for the Placer APCD staff when the Placer APCD acts as a commenting agency to review and comment on the environmental documents prepared by the lead agencies. In developing the thresholds, the Placer APCD took into account health-based air quality standards and the strategies to attain air quality standards, historical

CEQA project review data in Placer County, statewide regulations to achieve emission reduction targets for GHG, and the special geographic and land use features in Placer County.

The Placer APCD approach to developing significance thresholds for GHG emissions is to identify the emissions level for which a project would be expected to substantially contribute a mass amount of emissions and would conflict with existing statewide GHG emission reduction goal adopted by California legislation. The Placer APCD has developed a 3-step process for determining significance which includes 1) a bright-line threshold, 2) a De Minimis level, and 3) an efficiency matrix for projects that fall between the Bright-line and the De Minimis level (Table 6). The Placer APCD also proposes using the bright-line threshold of 10,000 MT CO₂e/yr for determining the level of significance for the land use construction phase of a Project. The State of California set the goal to reduce GHG emissions without limiting population and economic growth. The Placer APCD concept is to look for a reasonable threshold which would capture larger-scale projects with significant GHG emission contributions which should implement mitigation.

Table 6. Placer APCD 2016 Approved GHG Emissions Significance Thresholds.

Greenhouse Gas Thresholds			
Bright line threshold 10,000 Metric Tons (MT) CO ₂ e/yr			
Efficiency Matrix			
Residential		Non-Residential	
Urban	Rural	Urban	Rural
(MT CO ₂ e/capita)		(MT/CO ₂ e/1,000 sf)	
4.5	5.5	26.5	27.3
De Minimis Level 1,110 (MT) CO₂e/yr			

Potential Environmental Effects

- a) **Less Than Significant Impact.** The proposed Project would not increase the capacity of Plumbago Road and would not increase operational GHG levels. Construction of the proposed Project would generate short-term emissions of greenhouse gases. The Sacramento Metropolitan Air Quality Management District (SMAQMD’s) Road Construction Emissions Model, Version 8.1.0 was utilized to estimate CO₂e from construction of the proposed Project. The RCEM was developed to estimate emissions from linear project types including road and bridge construction.

The RCEM results indicate Project construction would produce a maximum of approximately 3,116.9 kilograms per day of CO₂e or a total for the Project of approximately 310 metric tonnes (MT) of CO₂e over the assumed 6-month construction period. On a yearly basis this equals approximately 620 MT of CO₂e per year.

Construction-related CO₂e emissions would be temporary and would be well below the Placer APCD GHG construction threshold of 10,000 metric tons of CO₂e per year. Therefore, Project impacts would be considered less than significant.

- b) **Less Than Significant Impact.** The NSAQMD has not yet adopted a qualified plan, policy, or regulation to reduce GHG emissions. Therefore, the most applicable plan, policy, or regulation

adopted for the purpose of reducing GHG emissions is Assembly Bill (AB) 32, which codified the State’s future GHG emissions reduction targets.

The California Global Warming Solutions Act establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on statewide GHG emissions. CARB’s Scoping Plan includes measures to achieve the GHG reductions in California required by the California Global Warming Solutions Act. Measures included in the Scoping Plan would indirectly address GHG emission levels associated with construction activities, including the phasing-in of cleaner technology for diesel engine fleets (including construction equipment) and the development of a low-carbon fuel standard. Policies formulated under the mandate of the California Global Warming Solutions Act that are applicable to construction-related activity, either directly or indirectly, are assumed to be implemented statewide and would affect the proposed Project if those are policies are implemented before construction begins. The proposed Project’s construction emissions would comply with any mandate or standards set forth by the Scoping Plan. Therefore, it is assumed that Project construction would not conflict with the Scoping Plan.

As discussed in the Air Quality section, it is anticipated that the proposed Project would not change current operational emissions. The Project’s construction related GHG emissions would be well below the Placer APCD GHG construction threshold of 10,000 metric tons of CO₂e per year. Implementation of the proposed Project would therefore not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

5.2.9 Hazards and Hazardous Materials

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Environmental Setting

Pinnacle Environmental, Inc. prepared, and Caltrans approved, an Initial Site Assessment (ISA) for the proposed Project site (Pinnacle Environmental 2015). The ISA was prepared to identify potential or known hazardous materials, hazardous waste, and contamination in the project area. The ISA included a record search, field visit, and historical research on past project area land uses to identify potential sources of contamination. The records search included a regulatory agency database review for locations included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (the Cortese List).

The ISA indicates that ultramafic rock strata, potentially containing naturally occurring asbestos (NOA) occurs in the Project area. NOA is discussed in the Air Quality section above.

Potential Environmental Effects

- a) ***Less Than Significant Impact.*** Small amounts of hazardous materials would be used during construction activities (i.e., equipment maintenance, fuel, solvents, roadway resurfacing and re-striping materials). Hazardous materials would only be used during construction of the Project, and any hazardous material uses would be required to comply with all applicable local, state, and federal standards associated with the handling and storage of hazardous materials. Use of hazardous materials in accordance with applicable standards ensures that any exposure of the public to hazard materials would have a less-than-significant impact.
- b) ***Potentially Significant Unless Mitigation Incorporated.*** The ISA states the following routine issues were identified:
- It is possible that lead-based paint (LBP) was used on the steel railcar bridge. Neither the bridge deck nor the guardrails appeared to have been painted.
 - Concrete in the existing bridge abutments is unlikely to but may asbestos. The ISA also indicates that ultramafic rock strata, potentially containing NOA occurs in the Project area. NOA is discussed in the Air Quality section above.

The Project must comply with current existing Caltrans Standard Contract Specifications and Provisions including but not limited to:

- 14-11.16 Asbestos-Containing Construction Materials In Bridges
- 14-11.13 Disturbance of Existing Paint Systems on Bridges

The ISA also identified the presence of potential mine tailings immediately northeast of the existing bridge. The potential mine tailings are in the general vicinity of the Ophir Mine 5-Stamp Mill Battery. Both placer and hard rock mining have occurred in the immediate vicinity of the existing bridge since at least the 1850s. Placer mining employed a series of sifting and sluicing actions to concentrate gold bearing sediments. Large quantities of mercury were added to sluice boxes to bind with the fine-grained gold, forming an amalgam that was more easily separated

from the sediment. Loss of mercury during gold processing was estimated to be 10 to 30 percent per season.

Hard rock mining required building adits and shafts to reach underground quartz veins, and use of ore carts, mules, and pulley systems to bring mine ore to the surface. During the construction of shafts, adits, and tunnels, miners brought waste rock, containing elevated levels of heavy metals such as arsenic and lead, to the surface and deposited it in large tailings piles near the shaft openings.

The temporary detour bridge abutment on the north side of Kanaka Creek would be located approximately 20 feet from the Ophir Mine 5-Stamp Mill Battery where suspected mine tailings might be present. There would be some minor excavation required to construct the temporary abutment. The excavation for the abutment could result in the potential release of hazardous materials into the environment if present. Implementation of Measure HAZ-1 would reduce potential hazards and hazardous material impacts to a less-than-significant level.

- c) **No Impact.** No existing or proposed schools occur within 0.25 mile of the Project site. As noted above, the Project would involve the short-term handling of hazardous materials during construction. Handling and storage of hazardous materials during construction would comply with all applicable local, state, and federal standards.
- d) **Less Than Significant Impact.** No sites on the list compiled pursuant to Government Code Section 65962.5 occur in the Project area. The ISA discusses the three following sites that were identified pursuant to Government Code Section 65962.5.
- **Alleghany Landfill:** This site is identified as a solid waste disposal site that was closed in 1976.
 - **Alleghany-Footes Crossing:** This site is identified as a solid waste disposal site that was also closed in 1976.
 - **Alleghany Maintenance Facility:** A gasoline release was discovered at this site, the release affected groundwater, and the case is listed as “open-remediation” as of 2010.

The ISA concludes that based on the distance from the Project site and regulatory status, it appears unlikely that the Alleghany Landfill and Alleghany-Footes Crossing sites have significantly environmentally impaired the Project site. The ISA concludes that based on the distance from the Project site, regulatory status, and cross- to down-gradient location with respect to the inferred direction of groundwater flow, it appears unlikely that the Alleghany Maintenance Facility site has significantly environmentally impaired the Project site.

- e) **No Impact.** The Project is not located within an area covered by an airport land use plan or within two miles of a public airport or public use airport.
- f) **No Impact.** Plumbago Road would remain open to traffic during construction as there is no reasonable detour available. A temporary detour would be constructed immediately east (upstream) of the existing bridge to accommodate traffic during construction. The County or its construction contractors would conduct early coordination with law enforcement and emergency

service providers to ensure minimal disruption to service during construction. Therefore, Project impacts would be less than significant.

- g) **Less Than Significant Impact.** The completed Project would not expose people or structures to a new or increased significant risk of loss, injury or death involving wildland fires. Project construction activities would be coordinated with local law enforcement and emergency services providers. Therefore, Project impacts would be less than significant.

Mitigation Measures:

Measure HAZ-1 (Mine Tailings)

- *Prior to the start of construction sampling will be conducted in areas of potential mine tailings that would be disturbed by the Project. The sampling will be performed to appropriate depths where Project grading and excavation will occur. The samples will be tested for heavy metals including mercury, arsenic, and lead.*
- *If heavy metal level exceed the regulatory limits the Project will implement the requirements of Title 22 of the California Code of Regulations (CCR) and the California Health and Safety Code (Section 25356.1). Title 22 of the CCR and the California Health and Safety Code Section 25356.1 statutorily require several courses of action to protect worker safety and the environment, including the following:*
 - *Prepare a Preliminary Endangerment Assessment (PEA): The PEA provides basic information for determining if there has been a release of a hazardous substance that presents a risk to human health or the environment.*
 - *Prepare a Remediation Action Plan (RAP) or Removal Action Workplan (RAW) in accordance with California Health and Safety Code Section 25356.1. The RAP or RAW will include a discussion of exposure pathways and receptors, preparation of a conceptual site model, a human health risk assessment, an ecological risk assessment and would specify remedial measures for those on-site soils that contain hazardous levels of heavy metals to minimize the exposure risk to construction workers and end-users. The RAP and or RAW would be reviewed and approved by California Department of Toxic Substances Control (DTSC) or the appropriate Regional Water Quality Control Board.*

5.2.10 Hydrology and Water Quality

Would the project:	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

Environmental Setting

The Project is in the Upper Yuba River Hydrologic Unit (Hydrologic Unit Code 18020125). Elevation in the Project area ranges from approximately 3,725 to 3,850 feet above sea level. Most slopes in the Project area are very steep and some are impassable. The confluence of Kanaka Creek with North Fork Kanaka Creek is just west, and outside of, the BSA. The entire BSA drains to either Kanaka Creek or North Fork Kanaka Creek.

Kanaka Creek is a Category 5, 303(d) listed water body per the Final California 2020-2022 Integrated Report (303(d) List/305(b) Report) (SWRCB 2022). Category 5 features are defined as ‘A water segment where standards are not met and a TMDL is required, but not yet completed, for at least one of the pollutants being listed for this segment.’ Kanaka Creek is included on the 303(d) list for arsenic. The TMDL for Kanaka Creek is estimated to be completed in 2027.

The FEMA Flood Insurance Rate Map (FIRM) dated 2 February 2012 (panel 06091C0575C) show that the Project is located in Zone A area (FEMA 2012). Zone A includes areas that are within the 100-year/base floodplain where base flood elevations (BFEs) have not been determined.

Potential Environmental Effects

- a) ***Less Than Significant Impact.*** Project grading, equipment operations/maintenance include the use of fuels, lubricants, batteries, and coolants and may generate construction debris. These are the primary Project activities and materials that have the potential to pollute stormwater. Kanaka Creek is included on the 303(d) list for arsenic. The proposed Project is the replacement of an existing bridge. Bridge construction and traffic operations are not activities associated with the generation and discharge of arsenic. Stormwater from construction and operation of the proposed Project would not cause or contribute to the arsenic impairment of Kanaka Creek.

Caltrans' BMPs for stream protection, erosion, and sedimentation control would be implemented. Additionally, Measures BIO-1, BIO-5, and BIO-6 contain actions that would reduce potential impacts to water quality as well as biological resources. Water quality objectives would be met through adherence to Measures BIO-1, BIO-5, and BIO-6 and other construction provisions, precautions, and stipulations as described in the Section 404 CWA permit, Section 401 CWA Water Quality Certification, and 1602 Streambed Alteration Agreement.

Implementation of the revegetation measures and water quality in Measures BIO-1, BIO-5, and BIO-6 as well as adherence to Project permit requirements would ensure long-term soil stabilization and protection of water quality during construction.

- b) **No Impact.** The Project would not involve any withdrawals from an aquifer or groundwater table.
- c) **Less Than Significant Impact.** The Project is the replacement of an existing bridge structure. The Project would not alter the course of Kanaka Creek and would not substantially change the rate or amount of surface runoff.
Implementation of the revegetation measures and Measures BIO-1, BIO-5, and BIO-6 as well as adherence to Project permit requirements would ensure long-term soil stabilization and protection of water quality during construction.
- d) **Less Than Significant Impact.** See response to Item a) and Item c) above.
- e) **Less Than Significant Impact.** The Project would not provide additional sources of runoff compared with the existing bridge. The minor increase of impervious surface area resulting from construction of the approaches and wider bridge deck is not expected to contribute to a substantial increase in water runoff from the site.
- f) **No Impact.** No additional activities that would degrade water quality beyond those discussed above are anticipated.
- g) **No Impact.** The Project is a bridge replacement project, and no housing development is associated with the Project.
- h) **Less Than Significant Impact.** The FEMA Flood Insurance Rate Map (FIRM) dated 2 February 2012 (panel 06091C0575C) show that the Project is located in Zone A area (FEMA 2012). Zone A includes areas that are within the 100-year/base floodplain where base flood elevations (BFEs) have not been determined.

Caltrans design requirements specify that new structures should provide a minimum of 2 feet of freeboard above the design high water surface elevation (50-year event) and pass the 100-year event. The existing and proposed bridge soffit is considerably higher than the 50- and 100-year water surfaces. The 50- and 100-year water surface elevations are at 3,761.8 and 3,763.2 feet, respectively; the soffit elevation of the proposed replacement bridge is 3,776.7 feet. This results in freeboard clearances of 14.9 feet and 13.5 feet above the 50- and 100-year events, respectively. Design flows and corresponding high water surface elevations at the site would not require a raise of the existing vertical roadway profile. Project impacts would be less than significant.

- i) **No Impact.** The Project does not involve activities associated with dams or levees and would not expose people to higher levels of risk involving flooding.
- j) **No Impact.** The Project is not in an area subject to seiche or tsunamis.

5.2.11 Land Use and Planning

Would the project:	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The Sierra County General Plan is the relevant land use plan for the project area.

Potential Environmental Effects

- a) **No Impact.** The Project proposes to replace the existing bridge on substantially the same alignment and would not physically divide an established community.
- b) **No Impact.** The Project would not conflict with the goals, objectives or policies intended to mitigate environmental impacts adopted in the Sierra County General Plan. The Project does not occur in an area covered by a habitat or natural community conservation plan.

5.2.12 Mineral Resources

Would the project:	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The Project parcels are not located in a ‘Mineral Extraction Special Treatment Area’ per General Plan Figure 1-3 (Sierra County 1996). Per General Plan Figure 11-1 (Existing Operating & Semi-Active Mines, Sierra County 1996) the Project area is in or immediately adjacent to the Sixteen to One Mine. The Project would replace a bridge on substantially the same alignment.

Potential Environmental Effects

- a) **No Impact.** The Project would not impact the availability of mineral resources that are locally important or would be of value to the State.
- b) **No Impact.** See response to Item a).

5.2.13 Noise

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

Environmental Setting

The 1996 Sierra County General Plan Noise Element establishes policies and standards for noise exposures at noise sensitive land uses. The Noise Element defines noise sensitive uses to include schools, parks, hospitals, and nursing homes. The goals of the Noise Element include:

- To protect County residents from harmful and annoying effects of exposure to excessive noise.
- To preserve the rural noise environment of the County and surrounding areas.
- To protect the economic base of the County by preventing incompatible land uses from encroaching upon existing or planned noise-producing uses.

Part 35.13 (a) of the Sierra County Code states:

- *(a) Noise, Dust and Debris: Each permittee shall conduct and carry out work authorized in such a manner as to avoid unnecessary inconvenience and annoyance to the general public and occupants of adjoining property. The permittee shall take appropriate measures, as may be required, to reduce to the fullest extent practicable in the performance of the work, noise, dust and unsightly debris. During the hours of 7:00 p.m. to 7:00 a.m., the permittee shall not use any tool, appliance, or equipment producing noise of sufficient volume to disturb the sleep or repose of occupants of neighboring property, without the express written permission of the Director.*

Potential Environmental Effects

- a) **(Construction Noise) Less Than Significant Impact.** Construction activities could increase noise levels temporarily in the vicinity of the Project. Actual noise levels would depend on the type of construction equipment involved, distance to the source of the noise, time of day, and similar factors. These increases would be temporary. The Original Sixteen to One Mine is located directly west of the Project area. No schools, parks, hospitals or nursing homes occur within one mile of the Project area. The closest residence is located approximately 1,600 feet north of the Project area. While night and weekend construction is not scheduled, construction would comply with Part 35.13 (a) of the Sierra County Code.
(Operational Traffic Related Noise) Less Than Significant Impact. The Project would not increase the capacity of Plumbago Road. The Project would not increase operational traffic related noise and impacts would be less than significant.
- b) **Less Than Significant Impact.** Project construction would include activities such as operation of large pieces of equipment (e.g., heavy trucks) which may result in the periodic, temporary generation of ground-borne vibration. Because the Project would not expand the roadway or change the way in which it is used, an increase in ground-borne vibration associated with use of the road would not change from the current condition. Given the nature of any potential ground-borne vibration and given that any impacts would be temporary and periodic, potential impacts would be less than significant.
- c) **No Impact.** The Project is not traffic- or growth inducing and would not change the way in which the roadway is used. The Project would not contribute to a substantial permanent increase in the ambient noise level in the project vicinity.
- d) **Less Than Significant Impact.** Construction activities would increase noise levels temporarily in the vicinity of the Project. Actual noise levels would depend on the type of construction equipment involved, distance to the source of the noise, weather, time of day, and other factors. However, these increases would be temporary. Construction would comply with Part 35.13 (a) of the Sierra County Code.
- 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.** See response to Item e) above.

5.2.14 Population and Housing

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

- c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

Environmental Setting

The Project is the replacement of an existing bridge and would not increase the capacity of Plumbago Road.

Potential Environmental Effects

- a) **No Impact.** The Project would not result in population growth, the displacement of existing any housing, or a need for new housing.
- b) **No Impact.** See response to Item a).
- c) **No Impact.** See response to Item a).

5.2.15 Public Services

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

Environmental Setting

Fire protection to the Project area is provided by the Pliocene Ridge Community Services District (Alleghany Volunteer Fire Department). Police protection in the area is provided by the Sierra County Sheriff’s Department. The County maintains public facilities including the project area roadways and bridges.

Potential Environmental Effects

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

5.2.16 Recreation

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

Environmental Setting

There are no designated recreation facilities within the Project area. The Project area occurs on County ROW through privately-owned parcels surrounded by the Original Sixteen to One Mine land to the west, privately-owned parcels to the north, and the Tahoe National Forest to the east and south. Plumbago Road does not provide access to any nearby recreational facilities.

Potential Environmental Effects

- a) **No Impact.** The Project is the replacement of an existing bridge and would not increase the capacity of Plumbago Road. The Project would not increase the use of existing parks in the area and would not include the construction of any recreational facilities. Plumbago Road would remain open to traffic during construction as there is no reasonable detour available. A temporary detour would be constructed immediately east (upstream) of the existing bridge to accommodate traffic during construction.
- b) **No Impact.** The Project would not include the construction of any recreational facilities and would not require the expansion of existing recreational facilities.

5.2.17 Transportation

Would the project:	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The Project is located in a rural setting with low traffic volumes. Plumbago Road is classified as a Local Roadway per Figure 2 (Functional Classification Maps) of the Sierra County 2020 Regional Transportation Plan. Plumbago Road is classified as a local road per Map 8G of the California Road System Maps (Caltrans 2024b).

Potential Environmental Effects

- a) ***No Impact.*** The Project is the replacement of an existing bridge and would not increase the capacity of Plumbago Road. As a bridge replacement project, the Project would not increase vehicle miles traveled (VMT) in Sierra County as no new trip generators would be introduced and would not conflict CEQA Guidelines § 15064.3, subdivision (b).
- b) ***No Impact.*** Level of service is no longer a metric used to determine transportation impacts under CEQA. See response to Item a) above.
- c) ***No Impact.*** The Project would not result in a change in air traffic patterns.
- d) ***No Impact.*** The Project would replace an existing bridge to improve safety.
- e) ***Less Than Significant Impact.*** Plumbago Road would remain open to traffic during construction as there is no reasonable detour available. A temporary detour would be constructed immediately east (upstream) of the existing bridge to accommodate traffic during construction. Contractor staging would be available at the approach roadways between abutments and areas where the temporary detour would tie into the existing roadways. Temporary construction easements would be acquired on the east side of the existing bridge to support the temporary detour bridge, detour bridge road approaches, and staging areas.

The County would require the construction contractor to submit a traffic management plan that maintains access to properties throughout construction. Project construction activities would be coordinated with local law enforcement and emergency services providers.
- f) ***No Impact.*** The Project would not result in an increase in demand for parking in the vicinity of the Project site.
- g) ***No Impact.*** Figure 5 (Proposed Bicycle Facilities) of the *Sierra County 2012 Bicycle Plan* prepared and adopted by the Sierra County Transportation Commission does not show any future projects on Plumbago Road. In terms of pedestrian circulation, there are limited sidewalks in the communities of Loyalton and Downieville. Sierra County has many trails, both primitive and maintained, scattered throughout the National Forests.

5.2.18 Tribal Cultural Resources

	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

On 17 August 2016 and 13 October 2016 Sierra County sent AB 52 consultation invitation letters to the tribes that had requested consultation, including:

- Tsi Akim Maidu (letters sent to the Chairperson and Cultural Director)
- Greenville Rancheria of Maidu Indians
- United Auburn Indian Community (UAIC), Chairperson
- Washoe Tribe of Nevada and California THPO

The Tsi Akim Maidu, Greenville Rancheria, and Washoe Tribe of Nevada and California sent a reply. No other responses or information was received from any individual or group.

Potential Environmental Effects

- a) ***Less Than Significant Impact (applies to items a-i and a-ii).*** No documentation regarding tribal cultural resources was identified or received that would facilitate an eligibility determination pursuant to PRC Section 21074, 5020.1(k) or 5024.1.

5.2.19 Utilities/ Service Systems

	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Two telephone cables are routed across the existing bridge. The proposed Project would be designed to house the existing phone lines in a communications conduit hung from the deck slab. There are no other underground or overhead utilities within the Project area.

Potential Environmental Effects

- a) ***No Impact.*** The Project is a bridge replacement project and would not produce additional wastewater and would not exceed the applicable wastewater treatment requirements.
- b) ***No Impact.*** The Project would not increase the demand on existing water or wastewater treatment facilities.
- c) ***Less than Significant Impact.*** Roadway drainage would follow the same drainage patterns as the existing conditions. Surface drainage would flow off both sides of the crowned roadway before discharge. Scuppers in the bridge barrier curbs would direct roadway drainage along the edge of the deck and into Kanaka Creek. The facilities would convey approximately the same drainage volumes as the existing system.
- d) ***No Impact.*** The Project would not require water service.
- e) ***No Impact.*** The Project would not produce wastewater.
- f) ***No Impact.*** Solid waste generated by the Project would be limited to construction debris, including asphalt and concrete, resulting from bridge demolition, excavation of the existing roadway, and construction of the proposed improvements. Solid waste disposal would occur in accordance with federal, state, and local regulations. Disposal would occur at permitted landfills. Therefore, the Project would not generate the need for new solid waste facilities.
- g) ***No Impact.*** The Project would conform to all applicable state and federal solid waste regulations.

5.2.20 Wildfire

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

Environmental Setting

The Project is located in a ‘very high’ Fire Hazard Severity Zone per the 2022 CAL FIRE, Fire Hazard Severity Zones State Responsibility Area (SRA) maps (CAL FIRE 2022). It is also located in a Federal Responsibility Area associated with the Tahoe National Forest.

Potential Environmental Effects

- a) ***Less than Significant.*** While not considered a high-volume roadway (current ADT estimated at less than 100 vehicles), the proposed Project would require a short-term roadway detour at the bridge site during replacement of the existing bridge structure (and associated roadway approach work) to ensure construction is completed efficiently and with as short a construction period as possible. To minimize traveler delays and ensure circulation and access along Plumbago Road, during the construction period, the County will require the construction contractor to submit a traffic management plan that implements the traffic detour route and any circulation control measures, and requires early coordination with emergency service providers to ensure adequate emergency response and evacuation routes are maintained. Thus, Project activities would not impair an adopted emergency response plan or emergency evacuation plan, and this impact would be less than significant.
- b) ***Less than Significant.*** The Project site is in a rural forested area dominated by the Tahoe National Forest. No schools, parks, hospitals or nursing homes occur within one mile of the Project area. The closest residence is located approximately 1,600 feet north of the Project area. Heavy equipment used during project construction has the potential to start a fire on surrounding open space areas near the project site. However, implementation of Caltrans’ construction BMPs would reduce the potential for construction-related wildland fires by providing a clearing, reducing fire fuels and removing fire sustaining litter. In addition, during construction, spark arrestors or turbo chargers (which eliminate sparks in exhaust), and fire extinguishers would be required for all heavy equipment. No unique geographic and other factors are known in the

Project area that would exacerbate wildfire risks. Therefore, this impact would be less than significant.

- c) **No Impact.** As more fully described above in Section 3, Project Description, the proposed Project would not require the construction of any other infrastructure and would not relocate any existing utilities at the site. Maintenance of the new structure would not involve any activities that do not currently occur at the existing structure. None of the currently proposed Project activities are expected to exacerbate fire risk. Consequently, no impact would occur.
- d) **Less than Significant.** See Responses to Items a), b), and c) above.

5.2.21 Mandatory Findings of Significance

	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Cumulative impacts are evaluated based on an evaluation of other recent, past, present, and planned or adopted future projects in the vicinity of the proposed Project. Currently, the County and Caltrans are not proposing any public projects and there is limited development in this part of Sierra County. When assessing cumulative impacts, the timing of combined effects of these projects and the proposed Project’s contribution to those potential effects have been considered.

- a) **Potentially Significant Unless Mitigation Incorporated.** Through the use of Caltrans’ and industry-standard BMPs and the mitigation measures noted previously, the Project would not degrade the quality of the environment. As discussed in the Air Quality, Biological Resources, Hazards & Hazardous Materials sections, any potentially significant impacts related to the quality of the environment, plant, fish, or wildlife habitat or populations, special-status species, and important historical or cultural resources would be reduced to a less-than-significant level through implementation of avoidance and minimization measures and by incorporating mitigation measures. No known cultural resources would be affected by the proposed Project and if unidentified resources are encountered during construction, standard protocols in the Health

and Safety Code, for example, would be implemented to ensure that impacts would be less than significant.

b) ***Less than Significant.*** The Project is consistent with the General Plan and would not result in individually limited but collectively significant impacts. Considering the surrounding rural nature of the County, past, present, and future projects are likely to be consistent with the developed nature of the surrounding area and would likely be focused on similar infrastructure (i.e., bridge replacement and flood protection) improvements or small-scale residential/commercial development projects. However, their impacts would not substantially interact with the proposed Project's impacts with the exception of regional construction-related impacts such as short-term air quality/GHG emissions, erosion, and water quality impacts. Construction of the proposed project would result in temporary and short-term impacts that would be primarily limited to the project site and immediate vicinity. Although impacts related to resources such as air quality, greenhouse gas emissions, traffic, erosion, and water quality would contribute to regional impacts, these impacts would not make a cumulatively considerable incremental contribution to any significant cumulative impact resulting from other past, present, and reasonably foreseeable future projects in the project vicinity. This result is due to the relatively small size of the proposed Project, the confined nature of construction-related impacts over a relatively short 6-month construction period, and implementation of the following mitigation measures that are proposed to avoid, minimize, rectify, reduce, eliminate, and/or compensate for any potentially significant impacts:

- Measure AIR-1 -- Naturally Occurring Asbestos
- Measure BIO-1 -- Foothill Yellow-Legged Frog
- Measure BIO-2 -- Western Pond Turtle)
- Measure BIO-3 – Migratory Birds and Birds of Prey
- Measure BIO-4 – Bats
- Measure BIO-5 – Douglas Fir Forest / Trees
- Measure BIO-4 – Kanaka Creek
- Measure HAZ-1 – Mine Tailings

Therefore, the Project would not cause any additional environmental effects or significantly contribute to a cumulative impact.

c) ***Less than Significant.*** As discussed throughout this Initial Study, construction and operation of the proposed Project would not cause substantial adverse effects on human beings, either directly or indirectly. The proposed Project would be implemented for the specific purpose of public safety. Furthermore, mitigation measures are provided as necessary to reduce the proposed Project's potentially significant effects on air quality, biological resources, and hazards and hazardous materials to less-than-significant levels. Thus, construction and operation of the proposed project would not cause substantial adverse effects on human beings, either directly or indirectly. There would be no impact.

6. Report Preparation and References

6.1 Report Preparation

Sierra County, Department of Public Works– CEQA Lead Agency

Bryan Davey, Director of Transportation Project Manager

MGE Engineering, Inc.

Robert “Bob” Sennett, P.E. Vice President, Senior Engineer

Stephen Hawkins, P.E. Project Manager

SWCA Environmental Consultants, Inc.

Peter Mye Lead Environmental Planner/Project Manager

Kevin Derby Biologist

Aramis Respall CAD/GIS Analyst

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Appendix A: Mitigation Monitoring and Reporting Plan

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**MITIGATION MONITORING AND REPORTING PLAN
PLUMBAGO ROAD OVER KANAKA CREEK
BRIDGE (13C0051) REPLACEMENT PROJECT
(FEDERAL AID NUMBER: BRLO-5913 [058])**

CEQA LEAD AGENCY:

Sierra County

PREPARED:

March 2024

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Introduction

The Sierra County Departments of Public Works and Transportation, in conjunction with the California Department of Transportation (Caltrans) and the Federal Highway Administration (FHWA), intend to replace the existing Plumbago Road Bridge (13C0051) over Kanaka Creek. The Project is located along Plumbago Road approximately 0.4 air miles southeast of the town of Alleghany in southwest Sierra County, CA. 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. Sierra County, as the lead agency under the California Environmental Quality Act (CEQA), is responsible for overseeing the implementation and administration of this MMRP. The County will designate a staff member to manage the MMRP. Duties of the staff member responsible for program coordination will include conducting routine inspections and reporting activities, coordinating with the Project construction contractor, coordinating with regulatory agencies, and ensuring enforcement measures are taken.

Regulatory Framework

California Public Resources Code Section 21081.6 and California Code of Regulations Title 14, Chapter 3, Section 15097 require public agencies to adopt mitigation monitoring or reporting plans when they approve projects under 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

Mitigation measures are followed by an implementation description, the criteria used to determine the effectiveness of the mitigation, the timeframe for implementation, and the party responsible for monitoring the implementation of the measure. Implementation of mitigation measures is ultimately the responsibility of the County; during construction, the delegated responsibility is shared by County's contractors.

Environmental Factor	Mitigation Measure #	Environmental Protection Measures	Timing	Implementing Party	Monitoring Party	Frequency & Duration
Air Quality	AIR-1	<p>Naturally Occurring Asbestos</p> <ul style="list-style-type: none"> • Notify in writing the Northern Sierra Air Management District, Air Pollution Control Officer (APCO) at least fourteen (14) days before the beginning of the activity. • All the following dust control measures will be implemented during any project construction: <ul style="list-style-type: none"> ○ Unpaved areas subject to vehicle traffic must be stabilized by being kept adequately wetted, treated with a chemical dust suppressant, or covered with material that contains less than 0.25 percent asbestos; ○ The speed of any vehicles and equipment traveling across unpaved areas must be no more than fifteen (15) miles per hour unless the road surface and surrounding area is sufficiently stabilized to prevent vehicles and equipment traveling more than 15 miles per hour from emitting dust that is visible crossing the project boundaries; ○ Storage piles and disturbed areas not subject to vehicular traffic must be stabilized by being kept adequately wetted, treated with a chemical dust suppressant, or covered with material that contains less than 0.25 percent asbestos; and ○ Activities must be conducted so that no track-out from any road construction project is visible on any paved roadway open to the public. ○ Equipment and operations must not cause the emission of any dust that is visible crossing the project boundaries. 	Pre-Construction and Construction Phases	Sierra County / Contractor	Sierra County / Contractor	Prior to and during Construction
Biological Resources	BIO-1	<p>Foothill yellow-legged frog (FYLF)</p> <ul style="list-style-type: none"> • A preconstruction survey for FYLF will be conducted immediately prior to the initiation of construction activities on the banks of Kanaka Creek. The preconstruction survey will be 	Pre-Construction and	Approved Biologist / Sierra County	Approved Biologist / Sierra County	Throughout Construction

Environmental Factor	Mitigation Measure #	Environmental Protection Measures	Timing	Implementing Party	Monitoring Party	Frequency & Duration
		<p>conducted by a biologist experienced with amphibian and reptile surveys in California. If FYLF are not found, construction will proceed. If FYLF are found, construction will not proceed on the banks of Kanaka Creek until the biologist verifies that individuals have left on their own, that work activities will not affect the individuals, or the biologist has moved the frog out of the construction zone.</p> <ul style="list-style-type: none"> • Prior to the start of construction, a biologist will conduct a training session for all construction personnel that includes a description of FYLF, their habitat, and how to proceed if a suspected special-status species is encountered. The training will also describe the specific measures being implemented to avoid adverse effects to these species. • All vegetation scheduled for removal on the banks of Kanaka Creek will be removed by hand or with hand tools, such as chain saws. After the vegetation has been removed, and a survey confirms the absence of FYLF, stumps and roots may be removed using mechanized vehicles and equipment. • A qualified biologist will be present to monitor for FYLF during ground-disturbing or vegetation removal activities on the banks of Kanaka Creek. • During construction, if a FYLF is observed in the active construction zone, construction will cease and a qualified biologist will be notified. Construction will resume when the biologist has either relocated the FYLF to nearby suitable habitat outside the construction zone, or, after thorough inspection, determined that the FYLF has moved away from the construction zone. • Fueling and equipment maintenance activities shall be a minimum of 100 feet from Kanaka Creek. A toxic materials control and spill-response plan will be developed and implemented for the Project. • To eliminate the attraction of potential predators of FYLF and avoid degradation of its habitat, all food-related trash items 	Construction Phases			

Environmental Factor	Mitigation Measure #	Environmental Protection Measures	Timing	Implementing Party	Monitoring Party	Frequency & Duration
		<p>such as wrappers, cans, bottles, and food scraps will be disposed of in closed containers and removed from the project site at the end of each working day.</p> <ul style="list-style-type: none"> Plastic monofilament netting (“poly netting”) or similar material containing netting that could result in the entanglement or death of wildlife, including FYLF, will not be used at the project site. Acceptable substitutes include coconut coir matting or tackified hyroseeding compounds. 				
Biological Resources	BIO-2	<p>Western Pond Turtle (Emys Marmorata)</p> <ul style="list-style-type: none"> A preconstruction survey for WPT will be conducted immediately prior to the initiation of construction activities on the banks of Kanaka Creek. The preconstruction survey will be conducted by a qualified biologist experienced with reptile surveys in California. If WPT are not found, construction will proceed. If WPT are found, construction will not proceed on the banks of Kanaka Creek until the biologist verifies that the individuals have left on their own, that work activities will not affect the individuals, or the biologist has moved the turtle out of the construction zone. Prior to start of construction, a biologist will conduct a training session for all construction personnel that includes a description of WPT, their habitat, and how to proceed if a suspected special-status species is encountered. The training will also describe the specific measures being implemented to avoid adverse effects to these species. 	Pre-Construction	Approved Biologist / Sierra County	Approved Biologist / Sierra County	Once Prior to Construction
Biological Resources	BIO-3	<p>Migratory Birds and Birds of Prey</p> <p>Under the MBTA, nests that contain eggs or unfledged young are not to be disturbed during the breeding season. Nesting or attempted nesting by migratory birds and birds-of-prey is anticipated from 15 February to 31 August. The following</p>	Pre-Construction and Construction Phases	Approved Biologist / Sierra County	Approved Biologist / Sierra County	Once Prior to Construction and During Construction

Environmental Factor	Mitigation Measure #	Environmental Protection Measures	Timing	Implementing Party	Monitoring Party	Frequency & Duration
		<p>measures will be implemented to protect birds-of-prey and birds protected by the Migratory Bird Treaty Act.</p> <p>Bridge-Nesting Birds</p> <p>In California, bridge-nesting swallows typically arrive in mid-February, increase in numbers until late March, and remain until October. Nesting begins in April, peaks in June, and continues into August. Although swallows are unlikely to nest on the Plumbago Road Bridge, other migratory birds may attempt to nest under the bridge. Black phoebes and Steller’s jays occur in the area and are known to nest on bridges. Measures should be taken to prevent establishment of nests prior to construction. Techniques to prevent nest establishment include using exclusion devices, removing and disposing of partially constructed and unoccupied nests of migratory or nongame birds on a regular basis to prevent their occupation, or perform any combination of these. This can be done by:</p> <ul style="list-style-type: none"> • The contractor can visit the site weekly and remove partially completed nests using either hand tools or high pressure water; and/or • Hang netting from the bridge before nesting begins. If this technique is used, netting should be in place from late February until project construction begins. <p><i>Birds of Prey and Birds Protected by the Migratory Bird Treaty Act</i></p> <ul style="list-style-type: none"> • If construction begins outside the 15 February to 31 August breeding season, there will be no need to conduct a preconstruction survey for active nests. • Vegetation scheduled for removal should be removed during the non-breeding season from 1 September to 14 February. Vegetation removal includes trees and vegetation within the 				

Environmental Factor	Mitigation Measure #	Environmental Protection Measures	Timing	Implementing Party	Monitoring Party	Frequency & Duration
		<p>stream zone. Within the stream zone, vegetation will be removed using hand tools, including chain saws and mowers, and may be trimmed several inches above the ground with the roots left intact to prevent erosion.</p> <ul style="list-style-type: none"> • If construction or vegetation removal begins between 15 February and 31 August, a biologist shall conduct a survey for active bird of prey nests within 250 feet and active nests of all other MBTA-protected birds within 100 feet of the Project area from publicly accessible areas within two weeks prior to construction. The measures listed below shall be implemented based on the survey results. <p><i>No Active Nests Found:</i></p> <ul style="list-style-type: none"> • If no active nest of a bird of prey, MBTA bird, or other CDFW protected bird is found, then no further avoidance and minimization measures are necessary. <p><i>Active Nests Found:</i></p> <ul style="list-style-type: none"> • If an active nest of a bird of prey, MBTA bird, or other CDFW protected bird is discovered that may be adversely affected by construction activities or an injured or killed bird is found, immediately: <ul style="list-style-type: none"> ○ Stop all work within a 100-foot radius of the discovery. ○ Notify the Engineer. ○ Do not resume work within the 100-foot radius until authorized. • The biologist shall establish a minimum 250-foot Environmentally Sensitive Area (ESA) around the nest if the nest is of a bird of prey, and a minimum 100-foot ESA around the nest if the nest is of an MBTA bird other than a bird of prey. 				

Environmental Factor	Mitigation Measure #	Environmental Protection Measures	Timing	Implementing Party	Monitoring Party	Frequency & Duration						
		<p data-bbox="512 282 835 305">Bird Species Protection Areas</p> <table border="1" data-bbox="512 324 1205 516"> <thead> <tr> <th data-bbox="512 324 848 376"><i>Protected Bird Type</i></th> <th data-bbox="848 324 1205 376"><i>Size of Protection Area (ESA)</i></th> </tr> </thead> <tbody> <tr> <td data-bbox="512 376 848 428"><i>Bird of prey</i></td> <td data-bbox="848 376 1205 428"><i>250 foot no-disturbance buffer</i></td> </tr> <tr> <td data-bbox="512 428 848 516"><i>MBTA protected bird (not bird of prey)</i></td> <td data-bbox="848 428 1205 516"><i>100 foot no-disturbance buffer</i></td> </tr> </tbody> </table> <ul data-bbox="512 522 1243 1393" style="list-style-type: none"> • Activity in the ESA will be restricted as follows: <ul style="list-style-type: none"> ○ Do not enter the ESA unless authorized. ○ If the ESA is breached, immediately (1) Secure the area and stop all operations within 100 feet of the ESA boundary, and (2) Notify the Engineer. ○ If the ESA is damaged, the County determines what efforts are necessary to remedy the damage and who performs the remedy. • No construction activity shall be allowed in the ESA until the biologist determines that the nest is no longer active, or unless monitoring determines that a smaller ESA will protect the active nest. • The ESA may be reduced if the biologist monitors the construction activities and determines, in consultation with CDFW, that no disturbance to the active nest is occurring. Reduction of ESA depends on the species of bird, the location of the nest relative to the project, project activities during the time the nest is active, and other project-specific conditions. • Between 15 February and 31 August, if additional trees or shrubs need to be trimmed and/or removed after construction has started, a survey will be conducted for active nests in the area to be affected. If an active nest is found, the above measures will be implemented. 	<i>Protected Bird Type</i>	<i>Size of Protection Area (ESA)</i>	<i>Bird of prey</i>	<i>250 foot no-disturbance buffer</i>	<i>MBTA protected bird (not bird of prey)</i>	<i>100 foot no-disturbance buffer</i>				
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Environmental Factor	Mitigation Measure #	Environmental Protection Measures	Timing	Implementing Party	Monitoring Party	Frequency & Duration
		<ul style="list-style-type: none"> If an active nest is identified in or adjacent to the construction zone after construction has started, the above measures will be implemented to ensure construction is not causing disturbance to the nest. If the biologist determines that disturbance to the active nest is occurring, they will have authority to stop construction. 				
Biological Resources	BIO-4	<p>Bats</p> <p>The following measures will be implemented to avoid and minimize impacts to bats:</p> <ul style="list-style-type: none"> Within the year prior to construction, the bridge shall be inspected for bats and/or bat sign. If evidence of bats is observed, exclusion measures using one-way exits shall be implemented. Bat exclusion must be complete prior to installation of netting for bird exclusion. <ul style="list-style-type: none"> Exclusion devices shall be installed between 1 September and 1 November, which is outside of the maternity and hibernation season. If it is determined that the bats are not using the bridge as a maternity or hibernation site, exclusion devices may be installed at any time. Exclusion devices shall remain in place until demolition of the bridge. If exclusion devices are not installed during the specified windows, a survey shall be conducted within 2 weeks prior to construction to determine bat use of the bridge. <ul style="list-style-type: none"> If no bats and/or bat sign is observed, no further avoidance and minimization measures are necessary. 	Pre-Construction	Approved Biologist / Sierra County	Approved Biologist / Sierra County	Prior Construction

Environmental Factor	Mitigation Measure #	Environmental Protection Measures	Timing	Implementing Party	Monitoring Party	Frequency & Duration
		<ul style="list-style-type: none"> ○ If it is determined that bats are using the bridge as a maternity or hibernation roost, CDFW shall be contacted to determine an appropriate avoidance buffer. ○ The avoidance buffer may be reduced if a qualified biologist monitors the construction activities and determines that no disturbance to the roost is occurring. Reduction of the buffer depends on the species of bat, the location of the roost relative to project activities, activities during the time the roost is active, and other project-specific conditions. ○ No work shall occur in the buffers until it is determined that the bats have left on their own, or until the end of the hibernation or maternity season, at which time exclusion devices can be installed. ● If it is determined that the bats are not using the bridge as a maternity or hibernation site, exclusion devices shall be installed a minimum of 48 hours prior to construction to ensure the bats have time to leave before construction begins. ● Exclusion devices shall remain in place until demolition of the bridge. 				
Biological Resources	BIO-5	<p>Douglas Fir Forest/Trees</p> <ul style="list-style-type: none"> ● Vegetation removal will be minimized to the maximum extent feasible. Prior to construction, the limits of vegetation removal will be marked with temporary fencing or flagging. ● The limits of construction will be fenced by the County or Contractor to minimize impacts on retained trees. Trucks and other vehicles will not be allowed to park beyond, nor shall equipment be stored beyond, the fencing. No vegetation removal or ground disturbing activities will be permitted beyond the fencing. Incorporation of this measure will help 	Pre-Construction and Construction Phases	Sierra County / Contractor	Sierra County / Contractor	Prior to and during Construction

Environmental Factor	Mitigation Measure #	Environmental Protection Measures	Timing	Implementing Party	Monitoring Party	Frequency & Duration
		<p>ensure that trees are not impacted beyond what is permitted by construction entitlements.</p> <ul style="list-style-type: none"> Temporarily impacted areas will be revegetated in accordance with the Revegetation Planting and Erosion Control Specifications (Appendix F) of the Project's Natural Environment Study. 				
Biological Resources	BIO-6	<p>Kanaka Creek</p> <ul style="list-style-type: none"> Prior to the start of construction, a containment system will be installed to keep project-related debris from entering Kanaka Creek. Installation of the containment system will take place above the OHWM of Kanaka Creek, from the banks or from the existing bridge deck. During construction, water quality will be protected by implementation of best management practices (BMPs) consistent with the latest version of Caltrans' Construction Site Best Management Practices (BMPs) Manual and the Stormwater Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual (2017) to minimize the potential for siltation and downstream sedimentation of Kanaka Creek. Construction vehicles and equipment will be maintained to prevent contamination of soil and water from external grease and oil and from leaking hydraulic fluid, fuel, oil, and grease. The County will implement best management practices outlined in any authorizations or environmental permits issued for the Project. 	Pre-Construction and Construction Phases	Sierra County / Contractor	Sierra County	Prior to and during Construction
Hazards & Hazardous Materials	HAZ-6	<p>Mine Tailings</p> <ul style="list-style-type: none"> Prior to the start of construction sampling will be conducted in areas of potential mine tailings that would be disturbed by the Project. The sampling will be performed to appropriate depths where Project grading and excavation will occur. The samples 	Pre-Construction	Sierra County / Contractor	Sierra County / Contractor	Prior to Construction

Environmental Factor	Mitigation Measure #	Environmental Protection Measures	Timing	Implementing Party	Monitoring Party	Frequency & Duration
		<p>will be tested for heavy metals including mercury, arsenic, and lead.</p> <ul style="list-style-type: none"> • If heavy metal level exceed the regulatory limits the Project will implement the requirements of Title 22 of the California Code of Regulations (CCR) and the California Health and Safety Code (Section 25356.1). Title 22 of the CCR and the California Health and Safety Code Section 25356.1 statutorily require several courses of action to protect worker safety and the environment, including the following: <ul style="list-style-type: none"> ○ Prepare a Preliminary Endangerment Assessment (PEA): The PEA provides basic information for determining if there has been a release of a hazardous substance that presents a risk to human health or the environment. ○ Prepare a Remediation Action Plan (RAP) or Removal Action Workplan (RAW) in accordance with California Health and Safety Code Section 25356.1. The RAP or RAW will include a discussion of exposure pathways and receptors, preparation of a conceptual site model, a human health risk assessment, an ecological risk assessment and would specify remedial measures for those on-site soils that contain hazardous levels of heavy metals to minimize the exposure risk to construction workers and end-users. The RAP and or RAW would be reviewed and approved by California Department of Toxic Substances Control (DTSC) or the appropriate Regional Water Quality Control Board. 				

