

Edwards Crossing Bridge Replacement Project



NEVADA COUNTY, CALIFORNIA
DISTRICT 3
PROJECT # BRLO-5917(078)

Draft Environmental Impact Report

September 2023



SUMMARY

PROJECT DESCRIPTION

The County of Nevada (County) and the California Department of Transportation (Caltrans) proposes to construct a new 2-lane bridge to replace the existing Edwards Crossing Bridge over the South Yuba River. The existing Edwards Crossing Bridge that crosses the South Yuba River on North Bloomfield-Graniteville Road has been determined to be structurally deficient and is insufficient for emergency vehicle use. Therefore, a new bridge is planned to be constructed. Two proposed bridge locations for the river crossing will be evaluated. There is a need for the new river crossing to provide access for emergency vehicles and serve as an evacuation route during wildland fires. One of the alternatives would construct a new, 200-foot bridge 60 feet upstream from the existing bridge and would not change the current route to and from the bridge. The second alternative would build a new, 500-foot bridge 1,000 feet upstream at a higher elevation and eliminate the tight hairpin turn in the approach roadway on the south side of the river. The exact location of staging will be determined during final design in coordination with the contractor.

The following are common to both alternatives:

- The Bridge will contain two (2) 10-foot travel lanes with 2-foot shoulders or shoulder widths that meet AASHTO standards.
- Bridge will be 28 feet wide with 24 feet curb face-to-curb face.
- Bridge railing will be steel type: California ST-75.
- The existing bridge will remain in place for pedestrian use and historic preservation. It will be blocked from vehicle use with bollards.
- The existing bridge will receive minor rehabilitation including painting, railing repairs and north abutment stabilization against erosion, to ensure it remains in a serviceable condition.
- Staging areas and parking impacts during construction will be addressed during the project along with environmental factors affected by this project.
- The existing bridge will remain in service during construction of the new bridge, with the rehabilitation work occurring after the new bridge is complete.
- Temporarily eliminate approximately 15 spaces on the south side of the river for contractor staging of equipment and materials.
- Recreational use directly under the new bridge during construction will not be allowed.

Further detail regarding each alternative is described below.

The project will construct a new 2-lane bridge at one of the two upstream locations.

Alternative 1: New Bridge 60 feet upstream

Construct a 200-foot single span bridge supported on concrete seat type abutments. This location will require accessing the bridge by navigating the existing hairpin turn and steep roadway on the south side of the river, which restricts access for larger emergency vehicles. This single-span bridge would be above the normal high-water river level to avoid impacts to river hydraulics and minimize environmental issues associated with bridge construction. A detailed list of the description includes:

- Constructing a new 200-foot single span bridge across the river approximately 60 feet upstream of the existing bridge

- Construct new concrete seat-type abutments to support the bridge on either side of the river. The abutments will also support curved retaining walls to support the approach roadway to the new bridge.
- Expansion of the parking lot to the north side of the existing bridge to create more space for contractor staging of materials and equipment
- Permanently reconfigure the parking lot to accommodate the roadway for the new bridge location
- Erecting a temporary trestle across the river to support construction of the new concrete bridge.
- Approach roadways with a 90-foot radius curve to accommodate 2-axle emergency vehicles and pickups with short trailers.

Alternative 2: New Bridge 1,000 feet upstream

Construct a 500-foot concrete arch bridge with spandrel columns from the arch to the deck. The 360-foot arch span and geometric shape of the canyon at this location allows the bridge arches or piers to be located outside the water during construction. More detail of this alternative is as follows:

- Constructing a new 500-foot concrete arch bridge with spandrel columns from the arch to the deck. The arch is the 360-foot main span over the river, with approach spans of approximately 70 to 75 feet on each side of the arch.
- The concrete bridge deck will be approximately 170 feet above the river and will be constructed as cast-in-place concrete or precast concrete voided slab units.
- Realignment of North Bloomfield-Graniteville Road to provide emergency ingress/egress access approximately 1000 feet upstream of the existing bridge.
- Construct a new intersection of North Bloomfield-Graniteville Road and south side parking lot access road.
- Construct a new intersection of North Bloomfield-Graniteville Road and the north access road for maintenance to the north side of the existing bridge.
- New bridge will be constructed without obstructing access to the existing bridge (except for a few required closures).
- A temporary access road will be required on the north side of the canyon and a temporary trestle across the river is planned to get materials and equipment across the river for construction of the arch foundation at Pier 2.
- As part of the temporary access road connection to the existing roadway on the north side of the canyon, create space for southbound vehicles to turn from the existing roadway onto the temporary access road. Retain this expanded turn area for permanent turn-around use by maintenance and emergency vehicles.
- The trestle and temporary access roads will be removed and restored. The temporary access road restoration will leave it as a trail for walking/hiking purposes.

Alternative 3: No-Build Alternative

This alternative would not build a replacement bridge upstream from the existing, structurally deficient bridge.

ENVIRONMENTAL SETTING

The Edwards Crossing Bridge is located in the western portion of Nevada County. The bridge crosses the South Yuba River (39 miles of the river (outside of the project area) is designated as a California Wild and

Scenic River) and is located on Bureau of Land Management (BLM) recreational land. The historic bridge carries North Bloomfield-Graniteville Road over the river and, in addition to providing residents and visitors access to either side of the river, is a recreational destination. The project corridor is within a canyon that limits views of the river to the east and west, but visitors can see dense and, at times, damp vegetation on the south face and less contiguous vegetation on the north facing slope as the river flows under the bridge before making a turn northwest further into the canyon.

AREAS OF KNOWN CONTROVERSY

California Environmental Quality Act (CEQA) Guidelines Section 15123(b) requires the areas of known controversy be stated within the summary section of the EIR. Areas of known controversy raised by the public or agencies include the availability of an evacuation route, access for emergency vehicles, maintained access to the South Yuba River, and the visual effects a new bridge would have on the existing bridge and river area used for recreation. In addition, temporary and permanent impacts to natural biological resources are anticipated, as well as impacts to historic resources.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

The table below provides a summary of mitigation measures for affected environmental resources. Resources that would experience no impact are not within the table and include agriculture and forestry resources; land use and planning; population and housing; public services; and wildfire. An analysis of each resource is provided in Chapter 3.

Table 1: Summary of Affected Resources

Resource	Project Impacts			Summary of Avoidance, Minimization, and/or Mitigation Measures
	Alternative 1	Alternative 2	Alternative 3	
Aesthetics	Less than Significant Impact with Mitigation	Less than Significant Impact with Mitigation	No Impact	VIS-1 through VIS-4, and BIO-1 and BIO-11
Agriculture and Forestry Resources	Less than Significant Impact with Mitigation	Less than Significant Impact with Mitigation	No Impact	BIO-11
Air Quality	Less than Significant Impact with Mitigation	Less than Significant Impact with Mitigation	No Impact	AQ-1 and AQ-2
Biological Resources	Less than Significant Impact with Mitigation	Less than Significant Impact with Mitigation	No Impact	BIO-1 through BIO-26

Cultural Resources	Potentially Significant Impact	Less than Significant Impact with Mitigation	No Impact	CR-1 through CR-3
Energy	Less than Significant Impact	Less than Significant Impact	No Impact	No Measures
Geology and Soils	Less than Significant Impact with Mitigation	Less than Significant Impact with Mitigation	No Impact	WQ-4
Greenhouse Gas Emissions	Less than Significant Impact	Less than Significant Impact	No Impact	No Measures
Hazards and Hazardous Materials	Less than Significant Impact with Mitigation	Less than Significant Impact with Mitigation	Potentially Significant Impact	HAZ-1 and HAZ-2
Hydrology and Water Quality	Less than Significant Impact with Mitigation	Less than Significant Impact with Mitigation	No Impact	WQ-1 though WQ-7
Land Use and Planning	Less than Significant Impact	Less than Significant Impact	No Impact	No Measures
Mineral Resources	Less than Significant Impact	Less than Significant Impact	No Impact	No Measures
Noise	Less than Significant Impact with Mitigation	Less than Significant Impact with Mitigation	No Impact	NOI-1
Public Services	Potentially Significant Impact	Less than Significant Impact with Mitigation	Potentially Significant Impact	TRA-1
Recreation	Less than Significant Impact	Less than Significant Impact	No Impact	No Measures
Transportation/Traffic	Potentially Significant Impact	Less than Significant Impact with Mitigation	Potentially Significant Impact	TRA-1
Tribal Cultural Resources	Less than Significant Impact with Mitigation	Less than Significant Impact with Mitigation	No Impact	CR-1 through CR-3
Utilities and Service Systems	Less than Significant Impact	Less than Significant Impact	No Impact	No Measures

Wildfire	Potentially Significant Impact	Less than Significant Impact with Mitigation	Potentially Significant Impact	WF-1 through WF-4
Mandatory Findings of Significance	Less than Significant Impact with Mitigation	Less than Significant Impact with Mitigation	No Impact	Specific Mitigation Measures

PROJECT ALTERNATIVES

As required by CEQA guidelines 15126.6, “An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation.” A “no project” or No-Build alternative shall also be evaluated. The No-Build alternative should analyze the impacts that would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. The alternatives below were evaluated within this EIR.

- Alternative 1 New Bridge approximately 60 feet upstream
- Alternative 2 New Bridge approximately 1,000 feet upstream
- Alternative 3 No-Build

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Table 2: List of Abbreviations

AB 32	Assembly Bill 32
AB 52	Assembly Bill 52
APE	Area of Potential Effects
bgs	below ground surface
BLM	Bureau of Land Management
BMPs	Best Management Practices
BSA	Biological Study Area
BTUs	British Thermal Units
CAA	Clean Air Act
Cal-EPA	California Environmental Protection Agency
Cal/OSHA	California Division of Occupational Safety and Health Administration
CAAQS	California Ambient Air Quality Standards
CARB	California Air Resources Board
CDC	California Department of Conservation
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFG	California Fish and Game
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	Carbon Monoxide
CWA	Clean Water Act
EPA	Environmental Protection Agency
ESA	Environmentally Sensitive Area
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FIRM	Flood Insurance Rate Map
FYLF	Foothill Yellow-Legged Frog
GHG	Greenhouse Gases
HBP	Highway Bridge Program
HSWA	Hazardous and Solid Waste Amendments of 1984
IPCC	Intergovernmental Panel on Climate Change
ITP	Incidental Take Permit
MBTA	Migratory Bird Treaty Act

MCAB	Mountain Counties Air Basin
MLD	Most Likely Descendant
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCIC	North Central Information Center
NMFS	National Marine Fisheries Service
NO	Nitric Oxide
NO _x	Nitrogen Oxide
NO ₂	Nitrogen Dioxide
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NRHP	National Register of Historic Places
NSAQMD	Northern Sierra Air Quality Management District
OSHA	Occupational Safety and Health Administration
O ₃	Ozone
Pb	Lead
PM	Particulate Matter
PRC	Public Resources Code
project	Edwards Crossing Bridge Replacement Project
RCRA	Resource Conservation and Recovery Act of 1976
ROG	Reactive Organic Gas
RWQCB	Regional Water Quality Control Board
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SO ₂	Sulfur Dioxide
SPCCP	Spill Prevention, Control, and Countermeasure Program
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TCRs	Tribal Cultural Resources
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
WPCP	Water Pollution Control Plan

1 INTRODUCTION

1.1 INTRODUCTION

The County of Nevada is proposing to replace the Edwards Crossing Bridge (a.k.a. North Bloomfield Bridge) that spans the South Yuba River. The bridge is within a canyon in the western portion of Nevada County along North Bloomfield-Graniteville Road. The bridge is approximately 7.5 miles northeast of Nevada City and is utilized by local residents and recreational users.

1.2 PURPOSE OF THIS ENVIRONMENTAL IMPACT REPORT

This Draft Environmental Impact Report (EIR) (State Clearinghouse No. 2020029038) has been prepared according to CEQA Guidelines in order to evaluate potential environmental impacts associated with the implementation of the proposed Project. The basic purpose of the report is to analyze project alternatives, identify environmental impacts, and determine which alternative will have the least amount of environmental impacts. The County of Nevada is the CEQA lead agency for this EIR.

1.3 NOTICE OF PREPARATION AND SCOPE

A Notice of Preparation (NOP) for an EIR was prepared and published for a 30-day public review and comment period from February 11, 2020 to March 13, 2020. Two NOP meetings were held during the public comment period; one at the Nevada County Board of Supervisors Chambers on February 26, 2020 and another February 27, 2020 at the North Columbia Schoolhouse. Both meetings were from 6:00 – 7:30pm. Each meeting presented the overview of the project, project alternatives, and environmental documentation process. Participants reviewed renderings, asked questions of the project team, and had the opportunity to provide comments verbally or via comment cards. A total of thirty-three participants attended the meetings.

1.4 TERMINOLOGY USED TO DESCRIBE IMPACTS

Terms within this EIR are defined below to assist readers of this document.

- *Cumulative impacts*: two or more individual effects which, when considered together, are considerable or compound other environmental effects.
- *Environment*: the physical setting and conditions in an area that could be affected by a project; this includes both natural and human-made living and non-living things.
- *Impacts*: analyzed under CEQA related to physical change. Direct *impacts* are caused by the proposed project and occur at the same time and location. Indirect *impacts* are caused by the proposed project, but occur later in time and/or potentially in a different location; for example, changes in land-use caused by a new road being constructed that creates new access to an area.
- *Less than significant impact*: an adverse impact, but one that does not exceed the defined thresholds of significance and does not require mitigation.
- *Mitigation*: a measure or action taken that avoids, minimizes, or compensates for an environmental impact; can also include the restoration or rehabilitation of an affected environment.
- *Potentially significant impact*: an environmental effect that may cause a substantial adverse change; however, additional information is necessary to determine the extent of impact. Under CEQA, a potentially significant impact is treated as if it were a significant impact.

- *Project*: reference to the entire actions that have the potential to impact the environment.
- *Significant impact*: an impact that would or could cause a substantial adverse change to the environment; mitigation measure(s) are necessary to eliminate the impact or reduce it to a less than significant level.

1.5 ORGANIZATION OF ENVIRONMENTAL IMPACT REPORT

This EIR is organized by the chapters listed below.

- *Summary* provides a project description, information on the areas of known controversy, and a synopsis of the environmental impacts and mitigation measures to address impacts.
- *Chapter 1, Introduction* describes the purpose of the EIR and EIR process. This chapter also lays out the organization and intent of the EIR.
- *Chapter 2, Project Description* includes the Project background, details about the location and existing conditions, Project alternatives, construction schedule, and the permits necessary to complete the Project.
- *Chapter 3, Environmental Impact Analysis* presents environmental impacts and analysis of each topic area, e.g. aesthetics, biological resources, etc. with details about the regulatory and physical setting and measures to avoid, minimize, and/or mitigate impacts.
- *Chapter 4, Project Alternatives* presents the preferred alternative, the feasibility study, information on other alternatives, and the process in narrowing down the analyzed alternatives.
- *Chapter 5, CEQA Evaluation and Considerations* included analysis of varying impacts and mitigation measures.
- *Chapter 6, Report Preparers* lists the authors of the EIR.
- *Chapter 7, Distribution List* is a list of the agencies and organizations who will receive this Draft EIR during the review period.
- *Chapter 8, References* provided the resources utilized in the preparation of this EIR.

1.6 ENVIRONMENTAL REVIEW PROCESS

Reviewers of a Draft EIR should focus on the sufficiency of the document in identifying and analyzing environmental impacts and distinctions between alternatives (an alternative analysis is provided in Section 4.3). Comments are most helpful when they suggest clarification of a description or analysis and/or specific changes to mitigation measures that would further avoid or minimize environmental effects.

This Draft EIR is available for review and comment by the public, responsible agencies, organizations, and other interested parties for a 45-day period (from September 29, 2023, to November 14, 2023). The Draft EIR will be available at the Nevada County Department of Public Works located at 950 Maidu Ave, Suite 170, Nevada City, CA 95959 and online at <https://www.nevadacountyca.gov/3178/Nevada-County-Bridge-Replacement-and-Reh>. Comments must be received electronically or physically by 5:00pm on the last day of the comment period. Comments about the Draft EIR should be addressed to:

Nevada County Public Works
 Attn.: Patrick Perkins
 950 Maidu Ave., Suite 170
 Nevada City, CA 95959
 Or Patrick.Perkins@co.nevada.ca.us

Public Informational Meeting

Additionally, a public meeting will be held during circulation on **November 1st, 2023, at the Board of Supervisors Chambers located at 950 Maidu Avenue, Nevada City, CA 95959 from 6:00 P.M. to 8:00 P.M.** The purpose of the public meeting is to inform the public of the alternatives being considered by the County along with the potential environmental impacts that would result from each one.

Intended Uses of the Environmental Impact Report

This Draft EIR examines the potential impacts of the proposed Edwards Crossing Bridge Replacement Project (project). The Final EIR will be prepared after the close of the public review period. The Final EIR will include comments received during the public review period, responses to those comments, and any revisions made to the document in a track changes format. Nevada County will also hold a public hearing during a Board of Supervisors meeting that provides for additional public comment followed by a vote by the Board of Supervisors to determine approval of the Final EIR and the selection of a preferred Project alternative. The public hearing date and location will be disclosed to the public as early as possible via the County Project website.

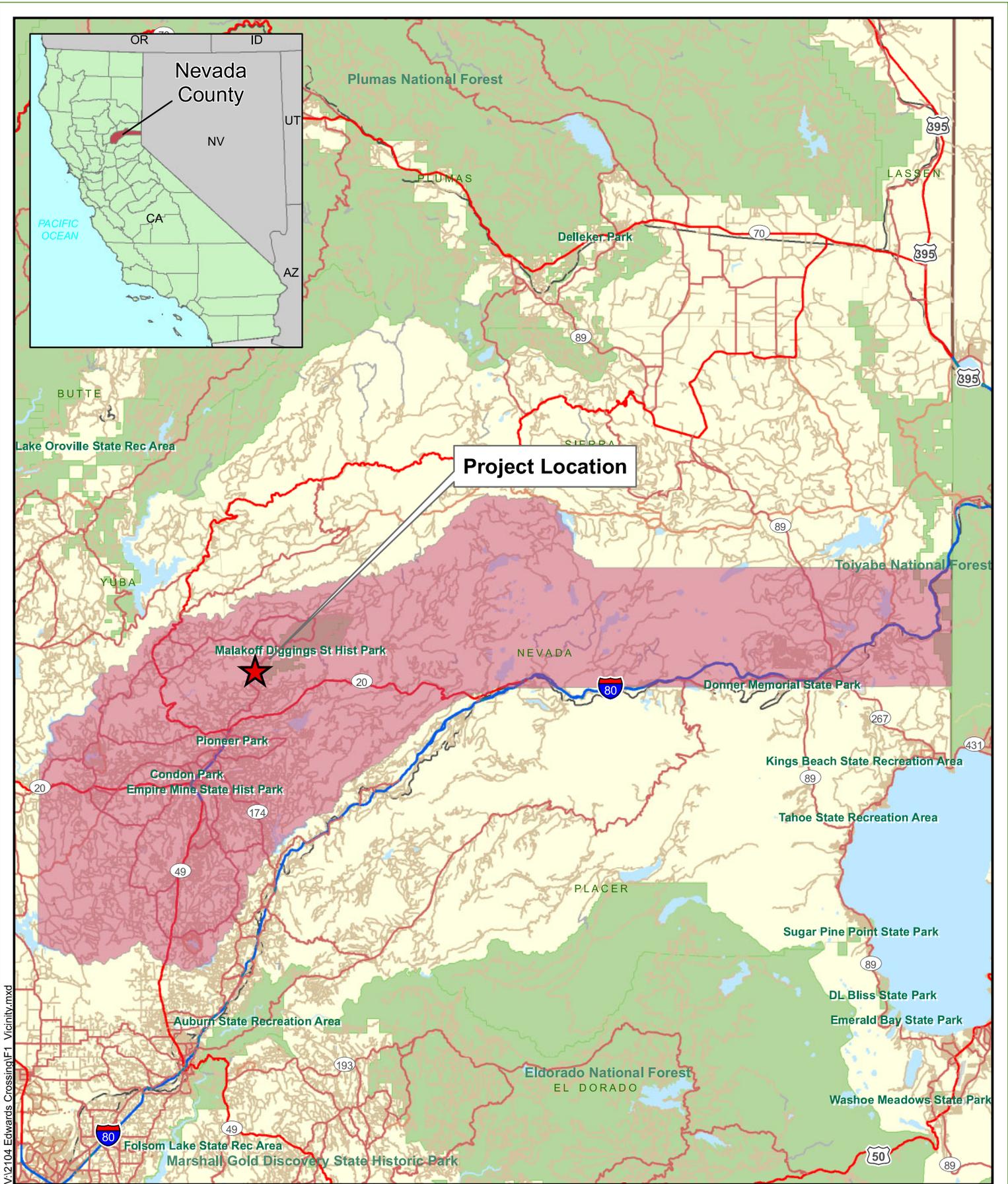
2 PROJECT DESCRIPTION

2.1 BACKGROUND

The Edwards Crossing Bridge over the South Yuba River was built in 1904 by the American Bridge Company. The existing Edwards Crossing Bridge that crosses the South Yuba River on North Bloomfield-Graniteville Road has been determined to be structurally deficient and is insufficient for emergency vehicle use. Therefore, a new bridge is planned to be constructed. Two proposed bridge locations for the river crossing have been determined to be the most feasible (see Section 4, Feasibility Study). There is a need for the new river crossing to provide access for emergency vehicles and serve as an evacuation route during wildland fires. One of the alternatives would construct a new, 200-foot bridge 60 feet upstream from the existing bridge and would not change the current route to and from the bridge. The second alternative would build a new, 500-foot bridge 1,000 feet upstream at a higher elevation and provide emergency ingress/egress access in the approach roadway on the south side of the river.

2.2 PROJECT LOCATION AND EXISTING CONDITIONS

The Edwards Crossing Bridge is located in the western portion of Nevada County. The bridge crosses the South Yuba River (39 miles of the river (outside of the project area) is designated as a California Wild and Scenic River) and is located on BLM recreational land. The bridge carries North Bloomfield – Graniteville Road over the river and, in addition to providing residents and visitors access to either side of the river, is a popular recreational destination itself. Figures 1, 2, and 3 are maps that provide more context on the project location.



V:\2104 Edwards Crossing\F1_Vicinity.mxd

Source: ESRI 2008; Dokken Engineering 10/16/2020; Created By: clavro

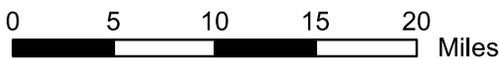
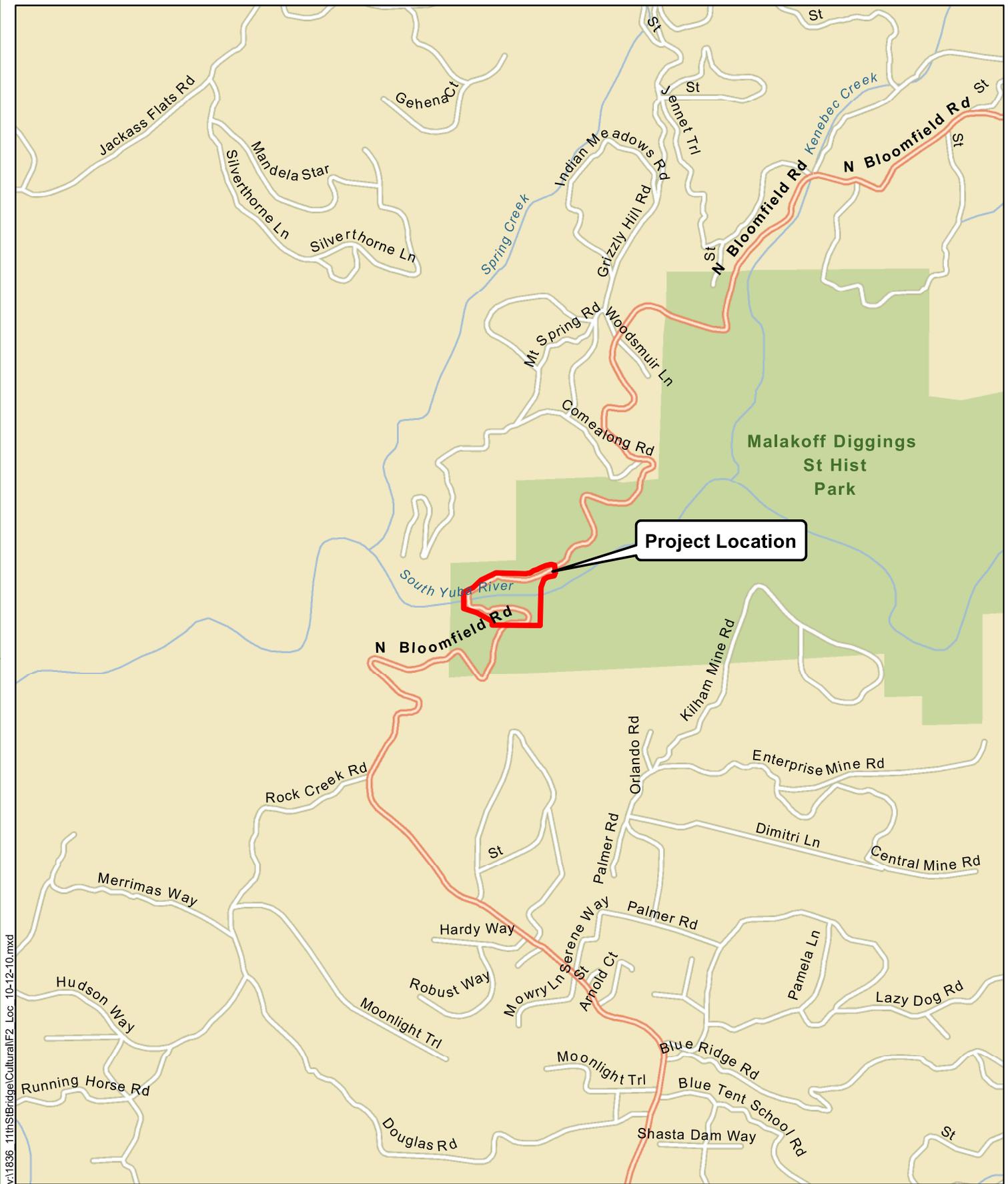


Figure 1 Project Vicinity

BRLO-5917(078)
Edwards Crossing Bridge (17C-0006) Replacement Project
Nevada County, California



\\1836_11thSt\Bridges\Cultural\F2_Loc_10-12-10.mxd

Source: ESRI World Street Maps Online; Dokken Engineering 10/16/2020; Created By: cfavro

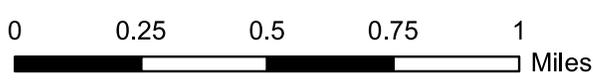
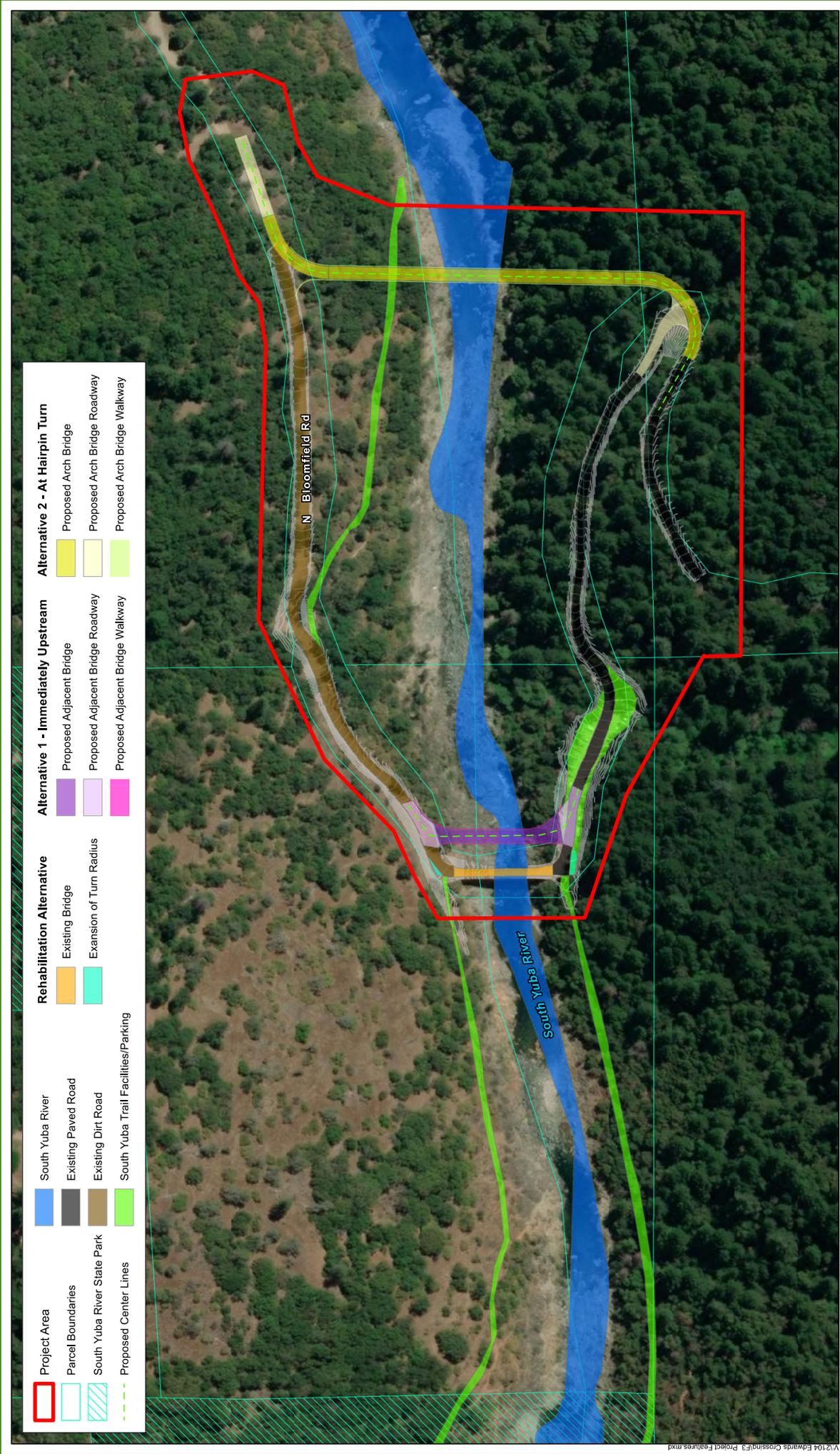


Figure 2
Project Location

BRLO-5917(078)
Edwards Crossing Bridge (17C-0006) Project
Nevada County, California

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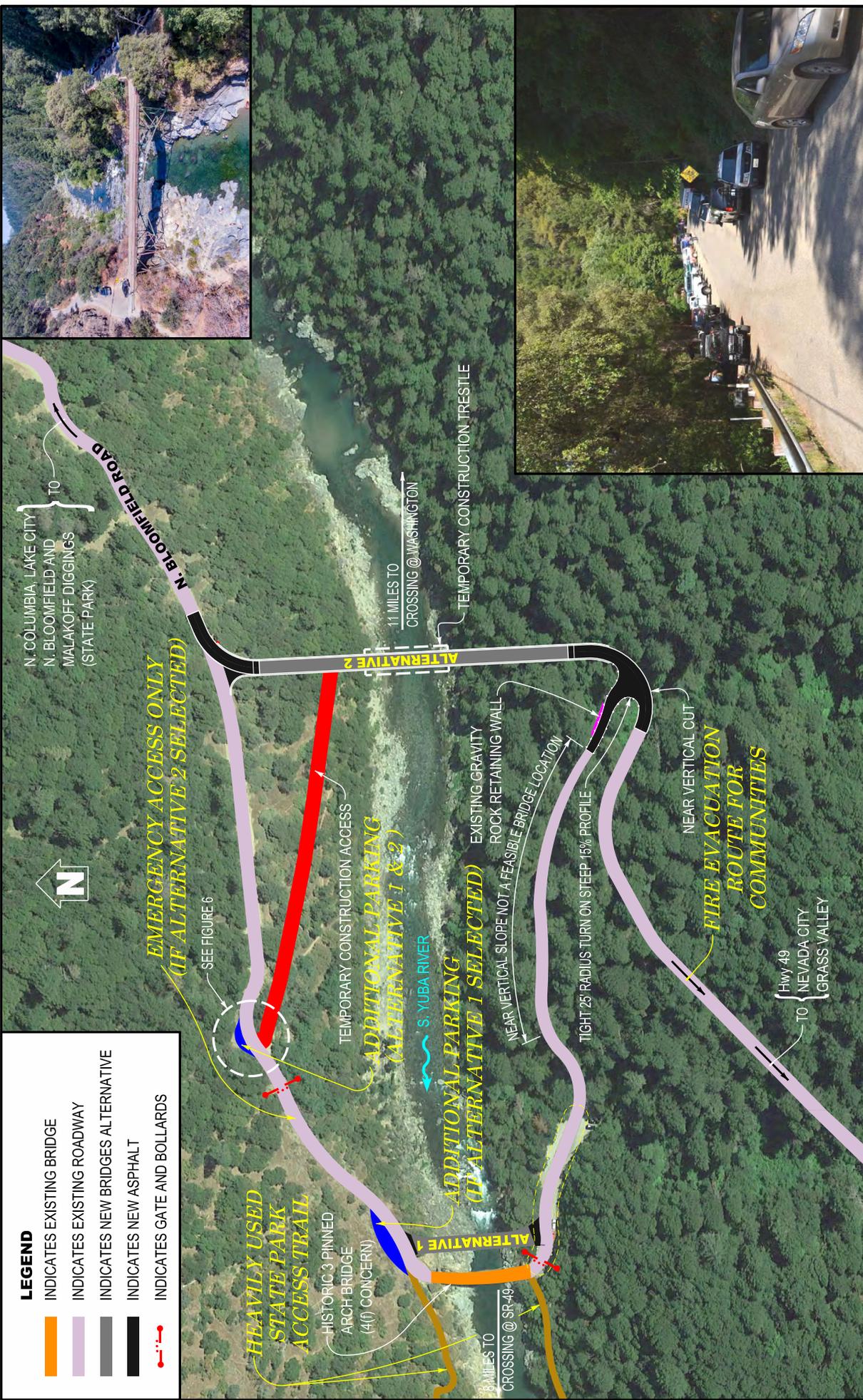
Project Area	South Yuba River	Rehabilitation Alternative	Alternative 1 - Immediately Upstream	Alternative 2 - At Hairpin Turn
Parcel Boundaries	Existing Paved Road	Existing Bridge	Proposed Adjacent Bridge	Proposed Arch Bridge
South Yuba River State Park	Existing Dirt Road	Expansion of Turn Radius	Proposed Adjacent Bridge Roadway	Proposed Arch Bridge Roadway
Proposed Center Lines	South Yuba Trail Facilities/Parking		Proposed Adjacent Bridge Walkway	Proposed Arch Bridge Walkway

Source: ESRI Maps Online; Dokken Engineering 10/16/2020; Created By: cflavo



1 inch = 150 feet

Figure 3
Project Features
 BRLO-5917(078)
 Edwards Crossing Bridge (17C-0006) Project
 Nevada County, California



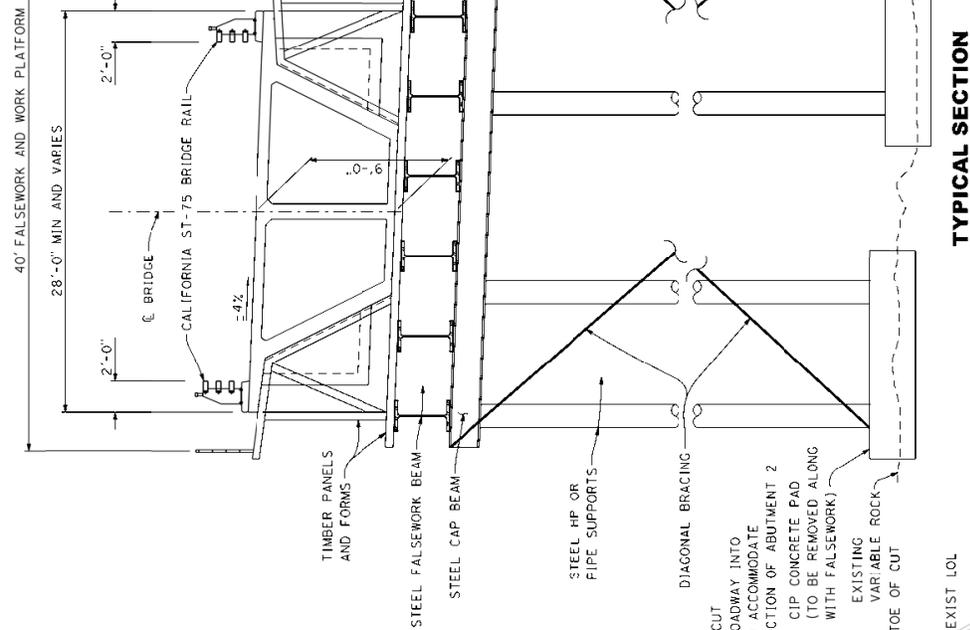
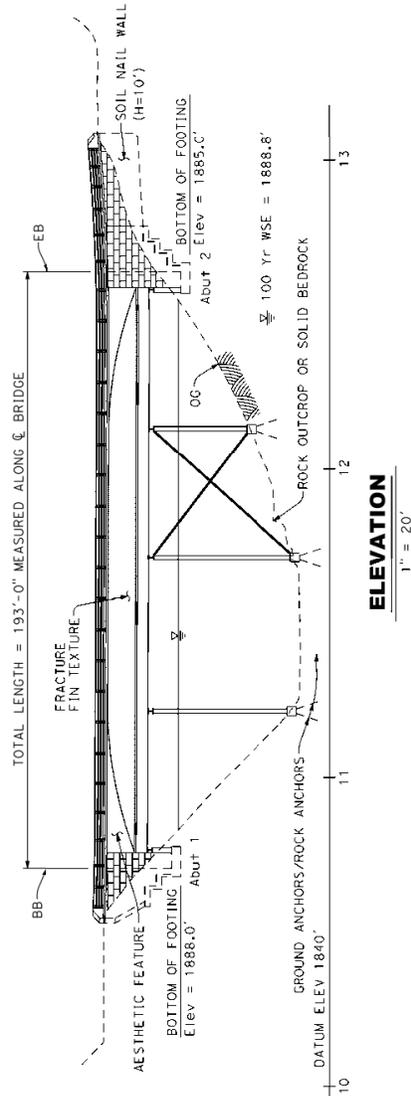
LEGEND

	INDICATES EXISTING BRIDGE
	INDICATES EXISTING ROADWAY
	INDICATES NEW BRIDGES ALTERNATIVE
	INDICATES NEW ASPHALT
	INDICATES GATE AND BOLLARDS

Figure 4
 Edwards Crossing Alternatives Exhibit
 BRLC-8977(076)
 Replacement Project
 Nevada County, California

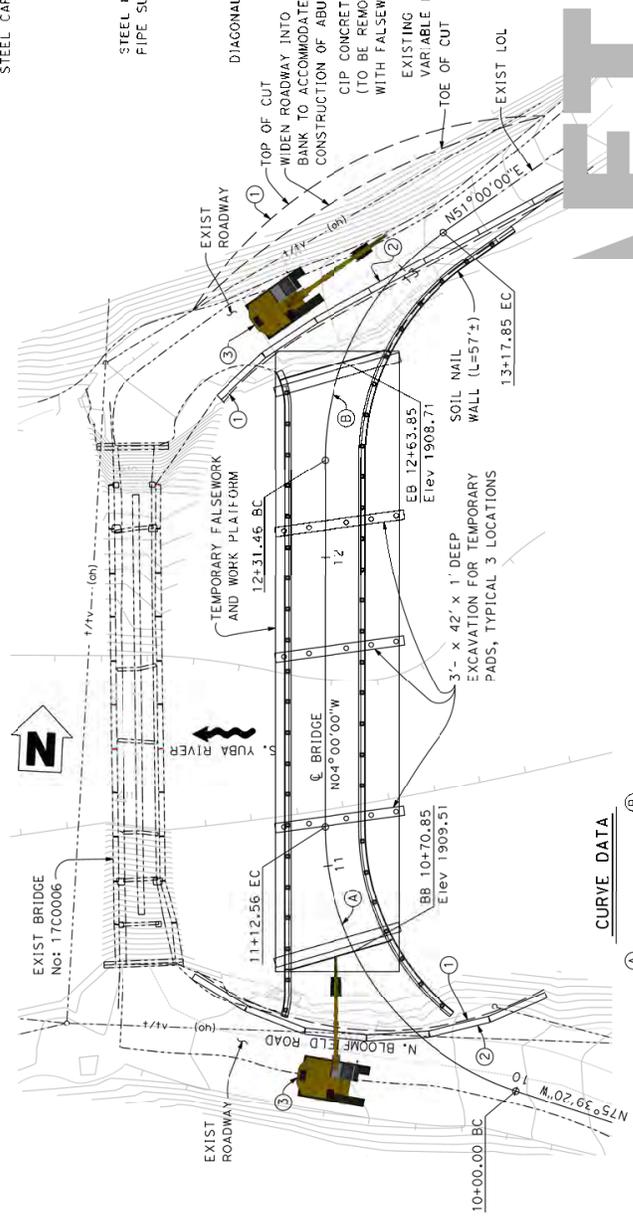
PREPARED BY:

 DEDOKKEN
 ENGINEERING



TYPICAL SECTION
1/4" = 1'-0"

NOTES:
 ① Excavation limits based on rock cut stability @ 1/2: 1.
 ② Temporary traffic barrier rail.
 ③ Mid size crane to reach 100' to set falsework. Public access to bridge will be closed for crane operations during the work shift. Opened after work shift. Cranes can be moved in the event of an emergency response.



CURVE DATA

(A)	R = 90.00'	R = 90.00'
(B)	Δ = 71°39'20"	Δ = 55°00'00"
	T = 151.28'	T = 70.02'
	L = 112.56'	L = 86.39'

PLAN
1" = 20'

Anticipate rock anchors to be HS rod grouted into 3' Ø x 20' long core hole, 18 per F/W bent, total 54.

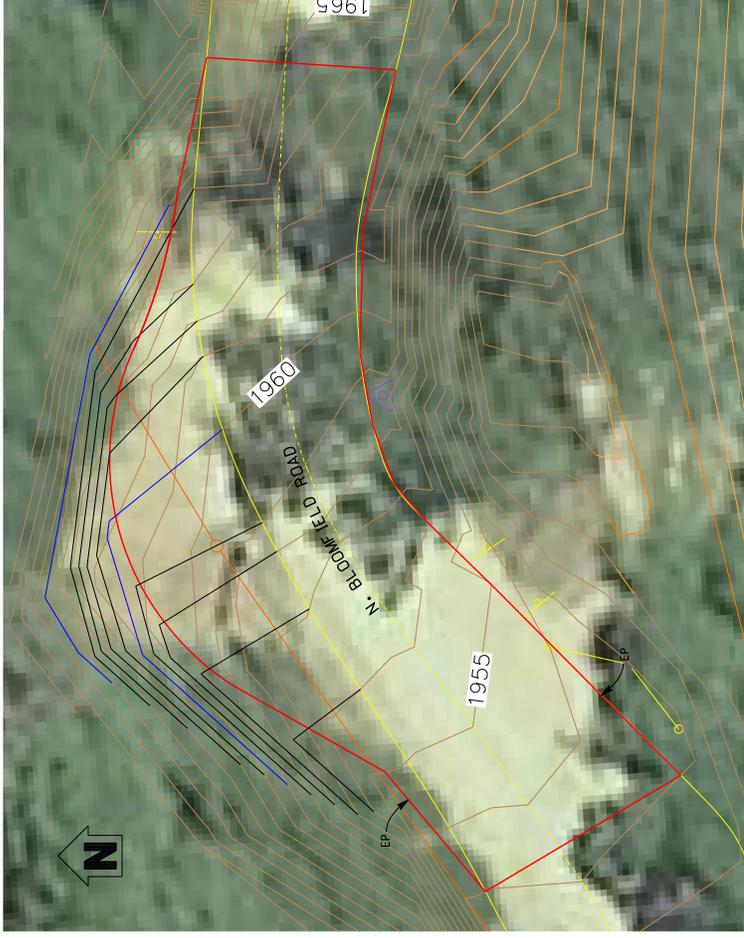
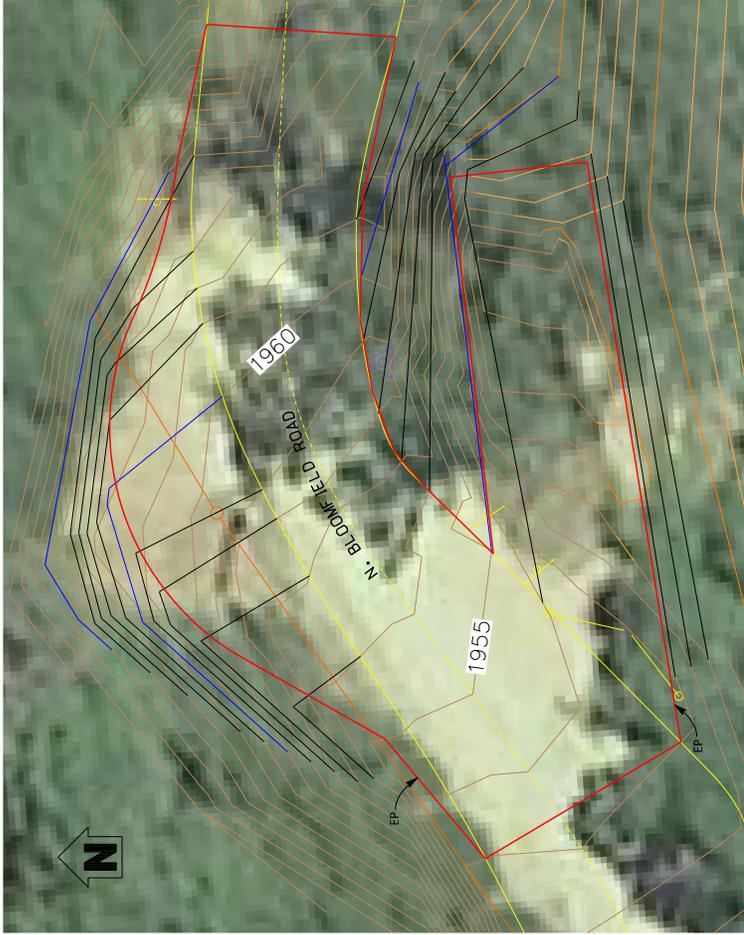


Figure 5
Falsework and Work Platform Exhibit
 BRLO-5917(078)
 Edwards Crossing Bridge (17C-0006) Replacement Project
 Nevada County, California

8/18/2023

PREPARED BY:
DE DOKKEN
 ENGINEERING

FOR ALTERNATIVE 1 & 2
 ALT 1 - NEED TURNAROUND FOR DELIVERY OF MATERIALS
 ALT 2 - NEED TURN AROUND FOR ACCESS TO TEMPORARY TRESTLE ROAD



TEMPORARY ROAD TURN-AROUND

PERMANENT TURN-AROUND

DRAFT

FOR LOCATION OF TURNAROUNDS, SEE
 FIGURE 4, NORTH SIDE OF THE RIVER.

PLAN
 1" = 15'



Figure 6
 Temporary Road and Turnaround Exhibit
 BRL0-5917(078)
 Edwards Crossing Bridge (17C-0006) Replacement Project
 Nevada County, California

9/20/2023

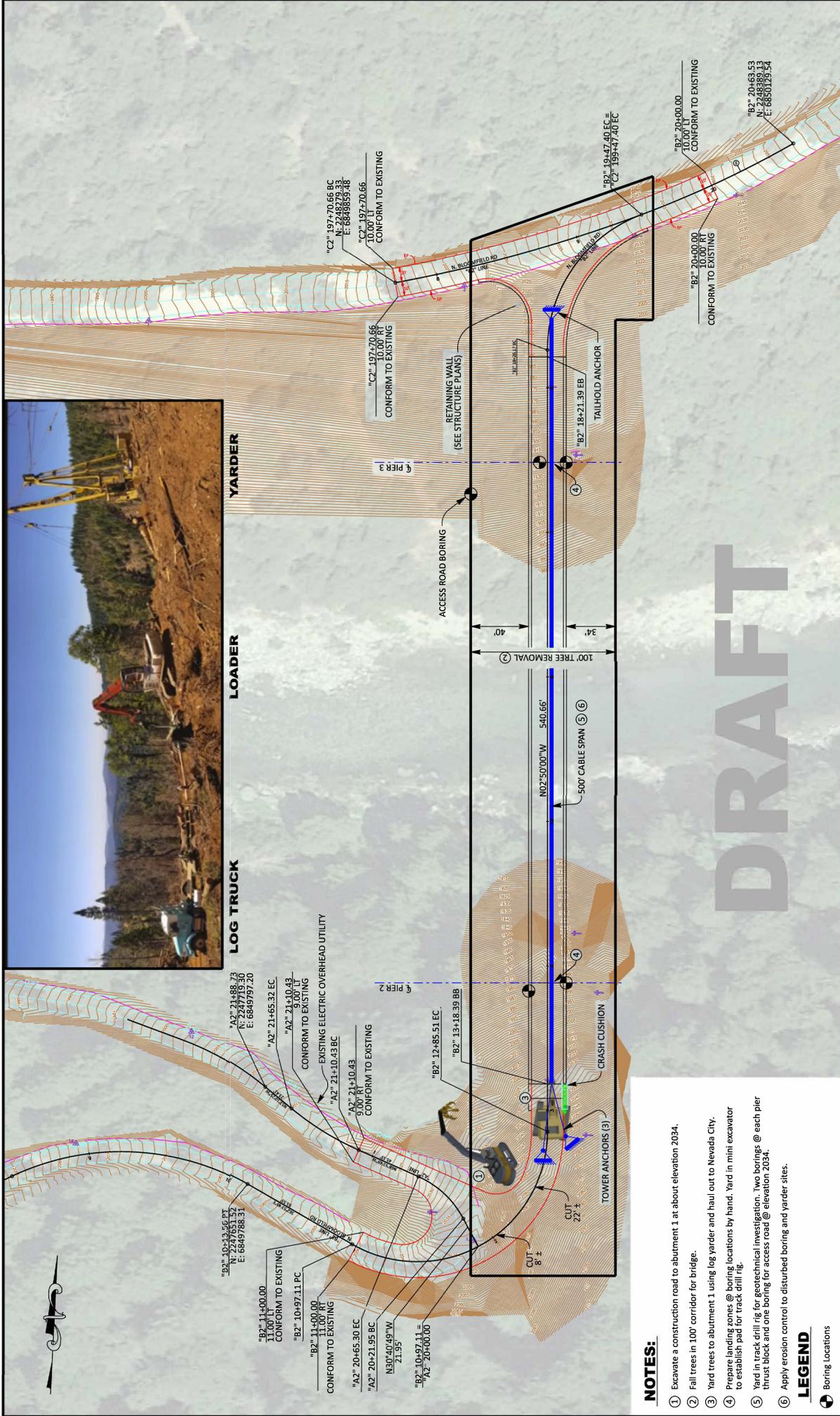
PREPARED BY:
DE DOKKEN
 ENGINEERING



LOG TRUCK

LOADER

YARDER



DRAFT

NOTES:

- 1 Excavate a construction road to abutment 1 at about elevation 2034.
- 2 Fall trees in 100' corridor for bridge.
- 3 Yard trees to abutment 1 using log yarder and haul out to Nevada City.
- 4 Prepare landing zones @ boring locations by hand. Yard in mini excavator to establish pad for track drill rig.
- 5 Yard in track drill rig for geotechnical investigation. Two borings @ each pier (inust block and one boring for access road @ elevation 2034.
- 6 Apply erosion control to disturbed boring and yarder sites.

LEGEND

- Boring Locations



EXHIBIT 2A

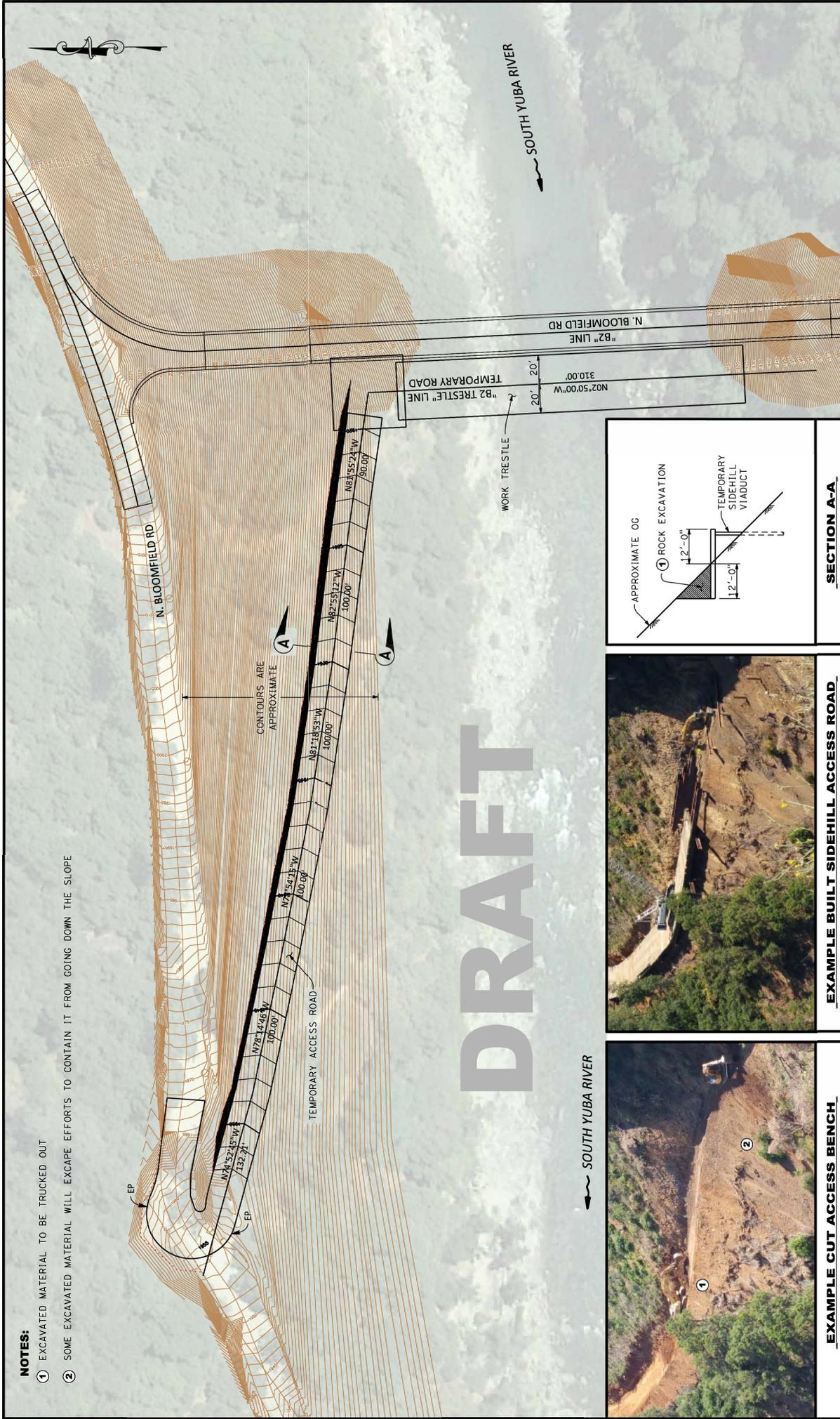
Figure 7
Vegetation Clearing and Geotechnical Exploration Exhibit
 BRLO-5917(078)
 Replacement Project
 Edwards Crossing Bridge (17C-0006)
 Nevada County, California

8/8/2022

PREPARED BY:
DD DOKKEN
 ENGINEERING

NOTES:

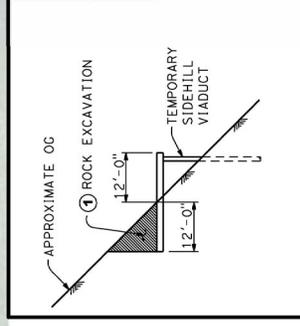
- ① EXCAVATED MATERIAL TO BE TRUCKED OUT
- ② SOME EXCAVATED MATERIAL WILL ESCAPE EFFORTS TO CONTAIN IT FROM GOING DOWN THE SLOPE



EXAMPLE CUT ACCESS BENCH



EXAMPLE BUILT SIDEHILL ACCESS ROAD



SECTION A-A

Figure 9
Temporary Access Road and Work Trestle Exhibit
 BRL0-5917(078)
 Edwards Crossing Bridge (17C-0006) Replacement Project
 Nevada County, California

8/8/2022

PREPARED BY:
DE DOKKEN
 ENGINEERING



EXHIBIT 2C

2.3 PURPOSE AND NEED

Purpose

The existing Edwards Crossing bridge was constructed in 1904 and rehabilitated in 1989. The purpose of the project is to construct a new bridge to carry vehicular traffic traveling along North Bloomfield-Graniteville Road over the South Yuba River while allowing the historic bridge to remain in use for pedestrian access to heavily used recreation areas along the South Yuba River.

Need

The bridge's structure, deck geometry, and roadway alignment are all rated as deficient, requiring a high priority of replacement. In addition, the existing bridge is restricted to a 4-ton weight capacity, precluding use by emergency vehicles. The project is needed to improve public safety and improve emergency service response times in the area.

2.4 ALTERNATIVES

2.4.1 Alternative 1 – New Bridge 60 feet upstream

Construct a 200-foot single span bridge supported on concrete seat type abutments. This location will require accessing the bridge by navigating the existing hairpin turn and steep roadway on the south side of the river, which prohibits access for larger emergency vehicles. This single-span bridge would be above the normal high-water river level to avoid impacts to river hydraulics and minimize environmental issues associated with bridge construction. A detailed list of the description includes:

- Constructing a new 200-foot single span bridge across the river approximately 60 feet upstream of the existing bridge.
- Construct new concrete seat-type abutments to support the bridge on either side of the river. The abutments will also support curved retaining walls to support the approach roadway to the new bridge.
- Expansion of the parking lot to the north side of the existing bridge to create more space for contractor staging of materials and equipment.
- Permanently reconfigure the parking lot to accommodate the roadway for the new bridge location.
- Erecting a temporary trestle across the river to support construction of the new concrete bridge.
- Approach roadways with a 90-foot radius curve to accommodate 2-axle emergency vehicles and pickups with short trailers.

2.4.2 Alternative 2 – New Bridge 1,000 feet upstream

Construct a 500-foot concrete arch bridge with spandrel columns from the arch to the deck. The 500-foot arch span and geometric shape of the canyon at this location allows the bridge arch foundations and piers to be located outside the water during construction. More detail of this alternative is as follows:

- Constructing a new 500-foot concrete arch bridge with spandrel columns from the arch to the deck. The arch is the 360-foot main span over the river, with approach spans of approximately 70 to 75 feet on each side of the arch.
- The concrete bridge deck will be approximately 170 feet above the river and will be constructed as cast-in-place concrete or precast concrete voided slab units.
- Realignment of North Bloomfield-Graniteville Road to provide emergency ingress/egress access approximately 1,000 feet upstream of the existing bridge.

- Construct a new intersection of North Bloomfield-Graniteville Road and south side parking lot access road.
- Construct a new intersection of North Bloomfield-Graniteville Road and the north access road for maintenance to the north side of the existing bridge.
- New bridge will be constructed without obstructing access to the existing bridge (except for a few required closures).
- A temporary access road will be required on the north side of the canyon and a temporary trestle across the river is planned to get materials and equipment across the river for construction of the arch foundation at Pier 2.
- As part of the temporary access road connection to the existing roadway on the north side of the canyon, create space for southbound vehicles to turn from the existing roadway onto the temporary access road. Retain this expanded turn area for permanent turn-around use by maintenance and emergency vehicles.
- The trestle and temporary access roads will be removed and restored. The temporary access road restoration will leave it as a trail for walking/hiking purposes.

2.4.3 Alternative 3 – No-Build

The no-build alternative would keep the existing, structurally deficient bridge in place. The surrounding area would be unchanged should the bridge remain open. Should the bridge be closed off to vehicular and pedestrian use, fencing would be necessary to prevent access.

2.5 CONSTRUCTION METHOD AND SCHEDULE

2.5.1 Bridge and Roadway Construction

Site preparation and bridge construction will involve excavation, grading, and construction of the bridge over the South Yuba River. Depending on the construction phase, implementation of the project would involve equipment such as a forklift, generator, crawler crane, hydraulic crane, excavator, front end loader, water truck, road grader, dump truck, rock drill, exterior traffic lighting, and a paver.

2.5.2 Traffic Management

The project would use of North Bloomfield-Graniteville Road with periodic temporary road closures. A traffic management plan will be prepared during final design, prior to the start of construction. The plan will list procedures, specific emergency response, and evacuation measures to be followed during emergencies. A detailed breakdown of road closure durations and how traffic will be managed for each alternative is discussed in Section 3.16 – Transportation/Traffic.

2.5.3 Schedule

Both alternatives would be constructed in phases across multiple seasons. Alternative 1 would be constructed in two phases across two seasons, totaling approximately 12 months of construction. Alternative 2 would be constructed in four phases across three seasons, totaling approximately 18 months of construction. Construction is anticipated to start in 2027.

2.6 PERMITS AND APPROVALS NEEDED

Table 3: Permits Required

Agency	Permit/Approval			Status
	Alternative 1	Alternative 2	Alternative 3	
California Department of Fish & Wildlife	Section 1600 Streambed Alteration Agreement	Section 1600 Streambed Alteration Agreement	No Permit	To be obtained during Final Design
Regional Water Quality Control Board	Section 401 Water Quality Certification	Section 401 Water Quality Certification	No Permit	To be obtained during Final Design
U.S. Army Corps of Engineers	Section 404 Nationwide Permit Authorization	Section 404 Nationwide Permit Authorization	No Permit	Covered under the 404 Nationwide Non-Notifying Permit #14
State Regional Water Quality Control Board	National Pollution Discharge Elimination System (NPDES) Construction General Permit	NPDES Construction General Permit	No Permit	To be obtained prior to the start of construction
California Department of Fish & Wildlife	Section 2081 Incidental Take Permit for Foothill Yellow-legged Frogs	Section 2081 Incidental Take Permit for Foothill Yellow-legged Frogs	No Permit	To be obtained during Final Design

3 ENVIRONMENTAL IMPACT ANALYSIS

The Edwards Crossing Bridge Replacement EIR utilizes the CEQA checklist similar to that of an Initial Study. Analysis of each environmental resources determined the level of impact the project would have on that particular resource and identified avoidance, minimization, and mitigation measures. Such measures would reduce impacts to less than significant for each resource examined unless it was determined that no impact would occur. This section includes the regulatory setting and environmental conditions for each resource and describes the impacts to each resource that the project would have as a whole. Chapter 4 provides an analysis of each alternative and differentiates specific impacts that one alternative would have as compared to another.

TOPICS CONSIDERED BUT NOT DETERMINED TO BE RELEVANT

Some resources from the CEQA Appendix G Checklist were eliminated from further analysis because they were not determined to be relevant, or the proposed project under either Build Alternative was determined to have no impacts related to the issue area. These issues will not be further evaluated in the EIR:

- **Population and Housing** – The project is in a rural area that does not contain any established communities. The project would not divide a community or affect population growth in any way. No impacts to Population and Housing would occur.

3.1 AESTHETICS

The purpose of this section is to assess the potential impacts on aesthetics the project would have on the natural environment.

3.1.1 Regulatory Setting

Federal Laws and Requirements

The project site does not contain any roadways that are designated in federal plans as a corridor worthy of protection for maintaining and enhancing scenic viewsheds (Caltrans 2020).

State Laws and Requirements

CEQA establishes that it is the policy of the state to take all action necessary to provide the people of the state “with...enjoyment of aesthetic, natural, scenic and historic environmental qualities (CA Public Resources Code Section 21001[b]).”

California Streets and Highways Code Section 92.3 directs Caltrans to use drought resistant landscaping and recycled water when feasible, and incorporate native wildflowers and native and climate-appropriate vegetation into the planting design when appropriate.

The project site does not contain any roadways that are designated in state plans as a corridor worthy of protection for maintaining and enhancing scenic viewsheds (Caltrans 2023).

The project requires two 10-foot lanes plus shoulders to comply with current fire standards (CA Board of Forestry and Fire Protection 2023).

Local Laws and Requirements

The Nevada County General Plan sets project design standards to provide “consistency with the landforms and aesthetic context of the site” (Nevada County General Plan, Volume I, pg. 6-5). The General Plan also provides guidelines for Aesthetics that puts forth policies to preserve scenic resources.

South Yuba River Comprehensive Management Plan

The South Yuba River Comprehensive Management Plan (2005) is a plan for the lower 39-mile stretch of the South Yuba River in Nevada County, California. The Plan covers only public lands under the jurisdiction of BLM, Forest Service, and the California Department of Parks and Recreation. Public services, such as law enforcement and facilities (ie. road and bridge infrastructures) provided by Nevada County, are also included within the planning area. The focus of the plan is how to manage public land resources and uses within the planning area. The intent is to develop a shared vision in concert with the interested public for all public lands, and to the greatest degree possible, provide similar management direction for all three agencies that manage public lands along the South Yuba River.

Nevada County Land Use and Development Code

Section L-II 4.3.15 – Trees

The Nevada County Land Use and Development Code Chapter II, Article 4.0, Section L-II 4.3.15 includes regulations intended, among other things, to preserve and minimize the disturbance of landmark and heritage trees and groves from development projects through on-site vegetation inventories, mandatory clustering, and other measures necessary to protect such habitat. The regulations indicate that a project may only be approved when they do not remove or disturb defined trees or groves, unless a management

plan is prepared consistent with the regulations. A detailed description of what qualifies as landmark and heritage can be found below:

- Landmark Trees, *Any oak (Quercus species) 36+ inches at diameter breast height (dbh or 4' 6"), or any tree whose size, visual impact, or association with a historically significant structure or event has caused it to be marked for preservation by the County, State, or Federal government.*
- Landmark Groves, *Hardwood tree groves with 33+% canopy closure, or groves whose size, visual impact, or association with a historically significant structure or event has caused it to be marked for preservation by the County, State, or Federal government.*
- Heritage Trees and Groves, *A tree or a group of hardwood trees designated by the Board of Supervisors to be of historical or cultural value, outstanding specimens, unusual species, or of significant community benefit due to size, age, or any other unique characteristic and considered to be in good health.*

The Nevada County Land Use and Development Code Chapter XVII, Article 3.0, includes standards for the design of roads that represent the minimum values or the lowest acceptable limit in design of roads. These standards apply to both public and private construction.

Include reference to the Section L-XVII: Road Standards which should drive the standards used for the design.

3.1.2 Thresholds of Significance

Would the Project result in:

- a) Have a substantial adverse effect on a scenic vista?*
- b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*
- 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 a 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?*
- d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

3.1.3 Environmental Setting and Existing Conditions

The project location and setting provides the context for determining the type and severity of changes to the existing visual environment. The terms visual character and visual quality are defined below and are used to further describe the visual environment. The project setting is also referred to as the corridor or project corridor which is defined as the area of land that is visible from, adjacent to, and outside the highway right-of-way, and is determined by topography, vegetation, and viewing distance. A Visual Impact Assessment was prepared by Wilson Design Studio in October 2020 to identify visual resources and impacts in the project area (Caltrans 2020).

The Edwards Crossing Bridge is located in the western portion of Nevada County. The bridge crosses the South Yuba River (39 miles of the river (outside of the project area) is designated as a California Wild and Scenic River) and is located on BLM recreational land. The historic bridge carries North Bloomfield-Graniteville Road over the river and, in addition to providing residents and visitors access to either side of the river, is a recreational destination. The project corridor is within a canyon that limits views of the river to the east and west, but visitors can see dense and, at times, damp vegetation on the south face and less

contiguous vegetation on the north facing slope as the river flows under the bridge before making a turn northwest further into the canyon. The project location is designated as Open Space within the Nevada County General Plan.

The visual character of the project area is greatly influenced and determined by the natural environment. Those natural visual elements include the South Yuba River itself and surrounding, tree-covered, canyon slopes. These elements create a vivid contrast to the skyline beyond in all directions. However, in addition to the natural environment, the existing bridge is also a visual resource. The visual resources, specifically the bridge and the river, are located at the bottom of fairly steep roadways on the north side and south side of river. The resources are viewed from the existing bridge itself, in close proximity to the bridge on either side of the river, and at river level downstream of the existing bridge, which is a common sunbathing and swimming area during warm weather.

Because it is not feasible to analyze all the views in which the proposed project would be seen, it is necessary to select a number of key views associated with visual assessment units that would most clearly demonstrate the change in the project's visual resources. Key views also represent the viewer groups that have the highest potential to be affected by the project considering exposure and sensitivity. In addition, these key views will be analyzed for each proposed alternative.

The potential impacts of the No-Build Alternative are also analyzed. This alternative would not have a visual impact *if* the existing bridge remains open. However, due to the structural deficient bridge rating, the bridge could eventually be closed off completely to vehicular and pedestrian access. This closure would entail fencing to deny access, which could constitute a moderate-high resource change and a high viewer response, resulting in an adverse visual impact.

The following section describes and illustrates visual impacts by key views, compares existing conditions to the proposed alternatives, and includes the predicted viewer response.

KEY VIEW R1 – From motorists' and recreationalists' perspective looking east.

This is a static view from the existing bridge.



ALTERNATIVE 1

Viewer Response (Alternative 1)

Viewers do not get a full view of the existing bridge and river until they are rather close due to the vegetation on the road coming down on a steep grade on both sides. Motorists, including recreationalists parking on the south side of the river, may feel the new, larger bridge is intrusive adjacent to the existing, much smaller bridge, thus negatively impacting the vividness, intactness, *and* unity of the area. Several residents voiced their concern during the Notice of Preparation public comment period to not build a bridge similar to the new Highway 49 Bridge, which is adjacent to the Old Route 49 Bridge that crosses the South Yuba River downstream from the Edwards Crossing bridge. While the Edwards Crossing Bridge will not be to the scale of the new Highway 49 Bridge, the new bridge will still detract from the current setting. The overall viewer response level is moderate-high.



ALTERNATIVE 2

Viewer Response (Alternative 2)

Viewers would see the new bridge at a distance while the current view of the river would remain intact. Motorists driving to the existing bridge would have the current view and motorists using the new arch bridge would have an entirely different view of the existing bridge and would avoid having to see and pass by numerous parked cars on the south side of the river during high visitation periods of the year. The vividness would be impacted by having a new structure in the landscape; however, the intactness and unity is less impacted since the bridge does not disrupt the overall visual quality. The overall viewer response level is moderate-low.

KEY VIEW R2 – From recreationalists’ perspective looking east.

This is a static view looking upstream from the river slightly downstream from the existing bridge, which is a common swimming area.



ALTERNATIVE 1

Viewer Response (Alternative 1)

Recreationalists, who are also motorists, drive and park along the existing road on both sides of the river. The new bridge would be an imposing structure mass adjacent to the much more delicate existing bridge and would partially block the view of the canyon looking upstream. The overall viewer response level is high.



ALTERNATIVE 2

Viewer Response (Alternative 2)

Recreationalists are likely to spend several hours down along the river, thus increasing their exposure to either bridge. Alternative 2 is in the distance and its form mimics that of the existing bridge, lessening the change in visual continuity. The overall viewer response level is moderate-low.

3.1.4 Environmental Impacts

IMPACT AES-1: Potential to have a substantial adverse effect on a scenic vista?

The project is located within a canyon that offers narrow yet scenic viewpoints. The river is the main scenic resource along with the landform around it with the most optimal view from the existing bridge. As the scenic resources are viewed from on, under, and in close vicinity to the existing bridge, a new bridge will not have a substantially adverse effect. Impacts related to both Alternative 1 and 2 would be **Less than Significant**. However, the impact is significantly less with Alternative 2. The No-Build alternative would result in **No Impact**.

IMPACT AES-2: Potential to damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway?

Vegetation will be removed along the embankments to accommodate for the new bridge. However, implementation of Mitigation Measure **BIO-11** would ensure that impacts are lowered to less than significant levels. The project is not within a state scenic highway and will limit the impact to scenic resources to the greatest extent possible. All open graded areas will be revegetated following construction using Best Management Practices (BMP), as described in measure **BIO-1 and BIO-11**. Impacts related to

both Alternative 1 and 2 would be **Less than Significant with Mitigation**. The No-Build alternative would result in **No Impact**.

IMPACT AES-3: Potential to substantially degrade the existing visual character or quality of the site and its surroundings?

The visual character of the proposed Edwards Crossing Bridge Replacement Project will be somewhat compatible with the existing visual character of the corridor and not substantially degrade the continuity. The visual quality of the existing corridor will be altered by the proposed project, but would be less than significant with the implementation of measures VIS-1 through VIS-4. Impacts related to both Alternative 1 and 2 would be **Less than Significant with Mitigation**. The No-Build alternative would result in **No Impact**.

IMPACT AES-4: Potential to create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The new bridge will not create a substantial new source of light or produce glare that would adversely affect views in the area. Therefore, Alternative 1 and 2 would result in No Impact. The No-Build alternative would result in **No Impact**.

Alternatives Summary

Alternative 1 New Bridge approximately 60 feet upstream

This bridge would partially block the view of the river seen from the existing bridge and the canyon seen from the river level. The scale and dominance and the increased exposure of the new bridge create a moderately-high to high visual impact. With the mitigation measures below, impacts would be reduced to less than significant levels.

Alternative 2 New Bridge approximately 1,000 feet upstream

This bridge is on an alignment approximately 1,000 feet upstream, thus greatly reducing the scale and dominance and exposure of the new bridge. The viewer response would be moderately-low since the new bridge would not impede on the view of the river or detract from the aesthetics of the existing bridge. The bridge would also fit into the geometry of the canyon, which creates a moderately-low visual impact. With the mitigation measures below, impacts would be reduced to less than significant levels.

Alternative 3 No-Build

This alternative would not build a replacement bridge adjacent to the existing, structurally deficient bridge. No mitigation measures would be implemented.

3.1.5 Avoidance, Minimization, and/or Mitigation Measures

The minimization and mitigation measures would be implemented to reduce impacts to a less than significant level for both build alternatives.

VIS-1: Construction will be limited to daylight hours.

VIS-2: Minimize the removal of trees and vegetation to accommodate bridge abutments and support structure.

VIS-3: Staging areas will be restored or designed to accommodate parking once the Project is complete.

VIS-4: Apply aesthetic treatments or design features.

Specific design features and treatments would be identified during final design.

3.2 AGRICULTURE AND FORESTRY RESOURCES

3.2.1 Regulatory Setting

State Laws and Requirements

Assembly Bill 2881 – Right to Farm Disclosure

Assembly Bill 2881 was passed by the State Legislature in 2008 and became effective January 1, 2009. This bill requires that as a part of real estate transactions, land sellers and agents must disclose whether the property is located within 1 mile of farmland as designated on the most recent Important Farmland Map. Any of the five agricultural categories — Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, and Grazing Land — on the map qualifies for disclosure purposes.

Nevada County General Plan

The Nevada County General Plan Chapter 15 – Forest, and Chapter 16 – Agriculture, contain goals, objectives, and policies related to Agriculture and Forestry Resources. The following goals are applicable to Agriculture and Forestry Resources:

- Goal 15.1, *Identify and maintain sustainable timber lands and resources.*
- Goal 16.1, *Encourage the use of significant agricultural lands and operation in Rural Regions.*
- Goal 16.2, *Promote a strong and sustainable local agricultural economy.*
- Goal 16.3, *Provide for and protect agricultural water supplies.*

Nevada County Land Use and Development Code

Section L-II 4.3.4 – Agricultural Lands, Important

The Nevada County Land Use and Development Code Chapter II, Article 4.0, Section L-II 4.3.4 Agricultural Lands, Important, intends to minimize the conversion of important agricultural areas to nonagricultural uses, minimize the adverse impact of potentially incompatible land uses upon important agricultural land and operations, and minimize the impairment of agricultural productivity of important agricultural land. If a project is within or adjacent to important farmland as defined by the code, the project is required to prepare a management plan that avoids or minimizes impacts to the important agricultural lands. The code defines important farmland as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance as defined by the Department of Conservation’s Important Farmland Map.

Section L-II 4.3.15 – Trees

The Nevada County Land Use and Development Code Chapter II, Article 4.0, Section L-II 4.3.15 includes regulations intended, among other things, to preserve and minimize the disturbance of landmark and heritage trees and groves from development projects through on-site vegetation inventories, mandatory clustering, and other measures necessary to protect such habitat. The regulations indicate that a project may only be approved when they do not remove or disturb defined trees or groves, unless a management plan is prepared consistent with the regulations. A description of what qualifies as landmark and heritage can be found below:

- Landmark Trees, Any oak (*Quercus species*) 36+ inches at diameter breast height (dbh or 4' 6"), or any tree whose size, visual impact, or association with a historically significant structure or event has caused it to be marked for preservation by the County, State, or Federal government.
- Landmark Groves, Hardwood tree groves with 33+% canopy closure, or groves whose size, visual impact, or association with a historically significant structure or event has caused it to be marked for preservation by the County, State, or Federal government.
- Heritage Trees and Groves, A tree or a group of hardwood trees designated by the Board of Supervisors to be of historical or cultural value, outstanding specimens, unusual species, or of significant community benefit due to size, age, or any other unique characteristic and considered to be in good health.

3.2.2 Thresholds of Significance

Would the Project result in:

- a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*
- b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?*
- 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))?*
- d) Result in the loss of forest land or conversion of forest land to non-forest use?*
- 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?*

3.2.3 Environmental Setting and Existing Conditions

The project area is designated as Other Land in the California Department of Conservation's Important Farmland Finder (CDC 2021). There are no farmlands in the project area that are used for the purposes of agriculture. However, the project area does contain timberland owned by BLM.

Forestry Resources Defined

Forestland is defined in Public Resources Code Section 12220(g) as:

Land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.

Timberland is defined in Public Resources Code Section 4526 as:

Land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees.

The project area contains a mix of oak woodland, coniferous forest, and montane riparian vegetation communities. Some of the species include Interior Live Oak, Tanoak, Douglas Fir, Willow, and Cottonwood. As mentioned in Section 3.4 Biological Resources, there is approximately 6.21 acres of mixed oak woodland, 6.90 acres of mixed coniferous forest, and 1.09 acres of montane riparian.

3.2.4 Environmental Impacts

IMPACT AG-1: Potential to 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?

Based on the California Important Farmland Finder map there are no farmlands within the project area and the land is identified as Other Land on the Farmland Finder map. Therefore, Alternative 1 and 2 would result in **No Impact**. The No-Build alternative would result in **No Impact**.

IMPACT AG-2: Potential to conflict with existing zoning for agricultural use, or a Williamson Act contract?

Based on a review of the Nevada County General Plan, there are no parcels with a Williamson Act contract within the project limits and the project would not conflict with agricultural zoning or use. Therefore, Alternative 1 and 2 would result in **No Impact**. The No-Build alternative would result in **No Impact**.

IMPACT AG-3: Potential to 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))?

The project would not conflict with existing zoning or cause rezoning of any kind in or near the project area. Although Alternatives 1 and 2 would result in tree removal, the project area would continue to be zoned as Open Space, and this designation would not change with project implementation. Impacts related to both Alternative 1 and 2 would be **Less than Significant**. The No-Build alternative would result in **No Impact**.

IMPACT AG-4: Potential to result in the loss of forest land or conversion of forest land to non-forest use?

Tree removal is anticipated for project activities. However, implementation of Mitigation Measure **BIO-11** would ensure that impacts are lowered to less than significant levels. The replacement of these trees would occur at a 1:1-inch diameter at standard height ratio. If replacement of removed trees on-site is determined to be infeasible, mitigation would be completed by payment to the Bear Yuba Land Trust or other Nevada County-approved entity, based on the assessment of tree damage/loss at a 1:1 ratio (minimum one acre). The fee shall include any required transaction and other potential fees required by said entity. Alternative 1 and 2 would be **Less than Significant with Mitigation**. The No-Build alternative would result in **No Impact**.

IMPACT AG-5: Potential to involve other changes in the existing environment which, due to their location or nature, could result in the conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

The project area contains no farmlands suitable for the purposes of agricultural activities, which results in no conversion of farmland. The project area does contain BLM-owned timberland. However, the anticipated tree removals would not convert the forest land to a significant level that would result in non-forest use. In addition, implementation of Mitigation Measure **BIO-11** would ensure that impacts are lowered to less than significant levels. Alternative 1 and 2 would be **Less than Significant with Mitigation**. The No-Build alternative would result in **No Impact**.

Alternatives Summary

Alternative 1 New Bridge approximately 60 feet upstream

The project area contains no farmlands suitable for the purposes of agricultural activities, which results in no conversion of farmland. anticipated tree removals would not convert the forest land to a significant level that would result in non-forest use. In addition, implementation of Mitigation Measure **BIO-11** would ensure that impacts are lowered to less than significant levels.

Alternative 2 New Bridge approximately 1,000 feet upstream

The project area contains no farmlands suitable for the purposes of agricultural activities, which results in no conversion of farmland. anticipated tree removals would not convert the forest land to a significant level that would result in non-forest use. In addition, implementation of Mitigation Measure **BIO-11** would ensure that impacts are lowered to less than significant levels.

Alternative 3 No-Build

This alternative would not build a replacement bridge upstream from the existing, structurally deficient bridge. No mitigation measures would be implemented.

3.2.5 Avoidance, Minimization, and/or Mitigation Measures

The project would have Less than Significant Impact with Mitigation to agriculture and forestry resources due to the implementation of Biological Resources measure **BIO-11**.

3.3 AIR QUALITY

3.3.1 Regulatory Setting

Federal Laws and Requirements

The Clean Air Act (CAA) as amended in 1990 is the federal law that governs air quality. Its counterpart in California is the California Clean Air Act of 1988. These laws set standards for the quantity of pollutants that can be in the air. At the federal level, these standards are called National Ambient Air Quality Standards (NAAQS). At the state level, these standards are called California Ambient Air Quality Standards (CAAQS). Standards have been established for six criteria pollutants that have been linked to potential health concerns: carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), particulate matter (PM), lead (Pb), and sulfur dioxide (SO₂).

Federal and State Ambient Air Quality Standards

California and the federal government have established standards for several different pollutants. For some pollutants, separate standards have been set for different measurement periods. Most standards have been set to protect public health. For some pollutants, standards have been based on other values (such as protection of crops, protection of materials, or avoidance of nuisance conditions). The pollutants of greatest concern in the project area are ozone, particulate matter-2.5 microns (PM_{2.5}) and particulate matter-10 microns (PM₁₀). Table 4 below shows the state and federal standards for a variety of pollutants.

Table 4: Federal and State Ambient Air Quality Standards

Criteria Pollutant	Average Time	California Standards	National Standards ^a	
			Primary	Secondary
O ₃	1-hour	0.09 ppm	None ^b	None ^b
	8-hour	0.070 ppm	0.070 ppm	0.070 ppm
PM ₁₀	24-hour	50 µg/m ³	150 µg/m ³	150 µg/m ³
	Annual Mean	20 µg/m ³	None	None
PM _{2.5}	24-hour	None	35 µg/m ³	35 µg/m ³
	Annual Mean	12 µg/m ³	12 µg/m ³	15 µg/m ³
CO	8-hour	9 ppm	9 ppm	None
	1-hour	20 ppm	35 ppm	None
NO ₂	Annual Mean	0.030 ppm	0.053 ppm	0.053 ppm
	1-hour	0.18 ppm	0.100 ppm	None
SO ₂ ^c	Annual Mean	None	0.030 ppm	None
	24-hour	0.04 ppm	0.014 ppm	None
	3-hour	None	None	0.5 ppm
	1-hour	0.25 ppm	0.075 ppm	None
Pb	30-Day Average	1.5 µg/m ³	None	None
	Calendar Quarter	None	1.5 µg/m ³	1.5 µg/m ³
	3-Month Average	None	0.15 µg/m ³	0.15 µg/m ³
Sulfates	24-hour	25 µg/m ³	None	None
Visibility Reducing Particles	8-hour	- ^d	None	None
Hydrogen Sulfide	1-hour	0.03 ppm	None	None
Vinyl Chloride	24-hour	0.01 ppm	None	None

Source: California Air Resources Board 2016

$\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.

ppm = parts per million

^a National standards are divided into primary and secondary standards. Primary standards are intended to protect public health, whereas secondary standards are intended to protect public welfare and the environment.

^b The federal 1-hour standard of 12 parts per hundred million was in effect from 1979 through June 15, 2005. The revoked standard is referenced because it was employed for such a long period and is a benchmark for State Implementation Plans.

^c The annual and 24-hour NAAQS for sulfur dioxide only apply for 1 year after designation of the new 1-hour standard to those areas that were previously nonattainment for 24-hour and annual NAAQS.

^d The CAAQS for visibility-reducing particles is defined by an extinction coefficient of 0.23 per kilometer – visibility of 10 miles or more due to particles when relative humidity is less than 70%.

Conformity

The conformity requirement is based on FCAA Section 176(c), which prohibits the U.S. Department of Transportation and other federal agencies from funding, authorizing, or approving plans, programs, or projects that do not conform to State Implementation Plan (SIP) for attaining the NAAQS. “Transportation Conformity” applies to highway and transit projects and takes place on two levels: the regional (or planning and programming) level and the project level. The proposed project must conform at both levels to be approved.

Conformity requirements apply only in nonattainment and “maintenance” (former nonattainment) areas for the NAAQS, and only for the specific NAAQS that are or were violated. U.S. Environmental Protection Agency (EPA) regulations at 40 Code of Federal Regulations (CFR) 93 govern the conformity process. Conformity requirements do not apply in unclassifiable/attainment areas for NAAQS and do not apply at all for state standards regardless of the status of the area.

Regional conformity is concerned with how well the regional transportation system supports plans for attaining the NAAQS for CO, NO₂, O₃, PM, and in some areas (although not in California), SO₂. California has nonattainment or maintenance areas for all of these transportation-related “criteria pollutants” except SO₂, and also has a nonattainment area for Pb; however, lead is not currently required by the FCAA to be covered in transportation conformity analysis. Regional conformity is based on emission analysis of Regional Transportation Plans (RTPs) and Federal Transportation Improvement Programs (FTIPs) that include all transportation projects planned for a region over a period of at least 20 years (for the RTP) and 4 years (for the FTIP). RTP and FTIP conformity uses travel demand and emission models to determine whether or not the implementation of those projects would conform to emission budgets or other tests at various analysis years showing that requirements of the FCAA and the SIP are met. If the conformity analysis is successful, the Metropolitan Planning Organization (MPO), Federal Highway Administration (FHWA), and Federal Transit Administration (FTA) make the determinations that the RTP and FTIP are in conformity with the SIP for achieving the goals of the FCAA. Otherwise, the projects in the RTP and/or FTIP must be modified until conformity is attained. If the design concept and scope and the “open-to-traffic” schedule of a proposed transportation project are the same as described in the RTP and FTIP, then the proposed project meets regional conformity requirements for purposes of project-level analysis.

Project-level conformity is achieved by demonstrating that the project comes from a conforming RTP and TIP; the project has a design concept and scope that has not changed significantly from those in the RTP and TIP; project analyses have used the latest planning assumptions and EPA-approved emissions models;

and in PM areas, the project complies with any control measures in the SIP. Furthermore, additional analyses (known as hot-spot analyses) may be required for projects located in CO and PM nonattainment or maintenance areas to examine localized air quality impacts.

State Laws and Requirements

Responsibility for achieving California's air quality standards, which are more stringent than federal standards, is placed on the California Air Resources Board (CARB) and local air districts, and is to be achieved through district-level air quality management plans that will be incorporated into the SIP. In California, the U.S. EPA has delegated authority to prepare SIPs to the CARB, which, in turn, has delegated that authority to individual air districts.

The CARB has traditionally established state air quality standards, maintaining oversight authority in air quality planning, developing programs for reducing emissions from motor vehicles, developing air emission inventories, collecting air quality and meteorological data, and approving state implementation plans.

Responsibilities of air districts include overseeing stationary source emissions, approving permits, maintaining emissions inventories, maintaining air quality stations, overseeing agricultural burning permits, and reviewing air quality–related sections of environmental documents required by CEQA.

Local Laws and Requirements

Nevada County Transportation Commission Regional Transportation Plan

The Nevada County Transportation Commission (NCTC) is the Regional Transportation Planning Agency for Nevada County. NCTC adopted its *Nevada County Regional Transportation Plan* in November 2017. The Regional Transportation Plan (RTP) provides a short-term and long-term framework that addresses regional transportation needs and documents the policy direction, actions, and funding strategies designed to maintain and improve the regional transportation system.

Nevada County General Plan

The Resource Conservation and Development Element of the County General Plan (Nevada County 1996) includes the following applicable goals, objectives, and policies regarding air quality.

- Goal 14.1, *Attain, maintain, and ensure high air quality.*
 - Objective 14.1, *Establish land use patterns that minimize impacts on air quality.*
 - Objective 14.2, *Implement standards that minimize impact on and/or restore air quality.*
 - Objective 14.3, *Identify regional impacts and coordinate with other agencies to achieve attainment.*

Northern Sierra Air Quality Management District

The project is under the jurisdiction of the Northern Sierra Air Quality Management District (NSAQMD) which regulates air quality according to the standards established in the Clean Air Acts and amendments to those acts. The NSAQMD comprises three counties: Nevada, Plumas and Sierra County. NSAQMD is required by law to achieve and maintain the federal and state Ambient Air Quality Standards.

3.3.2 Environmental Setting and Existing Conditions

An Air Quality Technical Memorandum was prepared for the project in November 2020 to identify any temporary or permanent air quality impacts that the project would cause (Caltrans 2020).

Regional Climate and Meteorology

A few key factors that contribute to air quality are the locations of air pollutant sources and the number of pollutants emitted from those sources. Atmospheric conditions such as wind speed, wind direction, and air temperature gradients, along with the topography of an area, all play a role in how air pollutants move and disperse.

The project area is in the Mountain Counties Air Basin (MCAB). The MCAB lies along the Northern Sierra Nevada, close to or contiguous with the Nevada border, and covers an area of roughly 11,000 square miles. Air pollutants can be transported to Nevada County by wind from the Sacramento area.

The climate of the MCAB varies with elevation and proximity to the Sierra Ridge. The terrain features of the basin make it possible for various climates to exist in close proximity. There is a wide variation in rainfall, temperature, and localized winds throughout the basin. Temperature variations have an important influence on basin wind flow, dispersion, vertical mixing, and photochemistry. The Sierra Nevada receives large amounts of precipitation from storms that arrive from the Pacific in the winter, with lighter amounts of moisture that flow from the south in the summer. Winter temperatures in the mountains can be below freezing for weeks at a time, and snow can accumulate. In the western foothills, winter temperatures usually dip below freezing only at night and precipitation is mixed as rain or light snow.

Criteria Pollutants of Concern

Ozone

Ozone is a photochemical oxidant that is formed when Reactive Organic Gas (ROG) and Nitrogen Oxide (NO_x) react with sunlight. Ozone poses a health threat to those who suffer from respiratory diseases as well as to healthy people. Ozone is a respiratory irritant that can cause severe ear, nose, and throat irritation and increases susceptibility to respiratory infections. Ozone has also been associated with causing damage to plants in the form of stunted growth and premature death, along with leaf discoloration and cell damage.

Reactive Organic Gases

ROG are compounds that are made up primarily of hydrogen and carbon atoms. Intern combustion associated with motor vehicle usage is the major source of hydrocarbons. Other sources of ROG emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. Adverse effects on human health are not caused directly by ROG, but rather by reactions of ROG to form secondary pollutants such as ozone.

Nitrogen Oxides

Nitrogen Oxide (NO_x) is a family of highly reactive gases that are a primary precursor to the formation of ground-level ozone, and react in the atmosphere to form acid rain. The two major forms of NO_x are nitric oxide (NO) and NO₂. NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. NO₂ is a reddish-brown irritating gas formed by the combination of NO and oxygen. NO_x acts as an acute respiratory irritant and increases susceptibility to respiratory pathogens.

Carbon Monoxide

CO is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. High CO levels are of greatest concern during the winter when light winds combine

with the formation of ground-level temperature inversions from evening through early morning. These conditions trap pollutants near the ground, reducing the dispersion of vehicle emissions. Vehicles tend to release more CO at low air temperatures. The primary adverse health effect associated with CO is interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation.

Particulate Matter

PM consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of particulates are now generally considered: inhalable coarse particles, or PM₁₀, and inhalable fine particles, or PM_{2.5}. Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. Wind on arid landscapes also contributes to local particulate loading. Both PM₁₀ and PM_{2.5} may adversely affect the human respiratory system, especially in those people who are naturally sensitive or susceptible to breathing problems.

Existing Air Quality Conditions

The current designations for Ambient Air Quality designations for Nevada County could be found on Table 5 below:

Table 5: NAAQS and CAAQS Attainment Status for Nevada County

Pollutant	Designation/Classification	
	Federal Standards	State Standards
Ozone – 1-Hour	-	Non-attainment
Ozone – 8-Hour	Non-attainment	Non-attainment
PM ₁₀	Unclassified	Non-attainment
PM _{2.5}	Unclassified/Attainment	Unclassified
CO	Unclassified/Attainment	Unclassified
NO ₂	Unclassified/Attainment	Attainment
SO ₂	Unclassified	Attainment
Hydrogen Sulfide	-	Unclassified
Source: California Air Resources Board 2010		

The project is not anticipated to result in a permanent increase of emissions. Therefore, the current designation/classification of attainment status is not expected to change from what is listed on Table 5.

3.3.3 Thresholds of Significance

Would the Project:

- a) Conflict with or obstruct implementation of the applicable air quality plan?
- 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?

3.3.4 Environmental Impacts

IMPACT AIR-1: Potential to conflict with or obstruct implementation of the applicable air quality plan?

The project is consistent with the site land use and zoning; construction of the project would not conflict with or obstruct implementation of any air quality plan. Therefore, Alternative 1 and 2 would result in No Impact. The No-Build alternative would also result in **No Impact**.

IMPACT AIR-2: Potential to 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?

CARB is required to designate areas of the state as attainment, non-attainment, or unclassified for any state standard. An “attainment” designation for an area signifies that pollutant concentrations do not violate the standard for that pollutant in that area. A “non-attainment” designation indicates that a pollutant concentration violated the standard at least once within a calendar year. The area air quality attainment status of Nevada County is shown on Table 5 above. Construction activities would result in short-term and intermittent increases in criteria pollutants; however, these would be temporary and would not result in a cumulatively considerable net increase of any criteria pollutant.

Construction Emissions

Construction activities associated with the construction of the new bridge will result in some temporary incremental increases in air pollutants, such as ozone precursors and particulate matter due to operation of gas powered equipment and earth moving activities. However, the proposed construction activities would be temporary in nature and are not anticipated to generate large amounts of dust or particulates with the implementation of standard air quality best management practices. The project would be implementing best available control measures, as required by **AQ-1** and **AQ-2**, to reduce dust and particulate spreading. Table 6 below summarizes the project emissions, which would not exceed the NSAQMD Level B threshold.

Table 6: Construction Emission Levels

Pollutant	Maximum Daily Construction Emissions (Pounds per Day)		NSAQMD Construction Emissions Level B Threshold (Pounds per Day)
	Alternative 1	Alternative 2	

Respirable Particulate Matter (PM ₁₀)	12.60 lbs/day	12.60 lbs/day	79-136 lbs/day
Oxides of Nitrogen (NO _x)	63.06 lbs/day	62.85 lbs/day	24-136 lbs/day
Reactive Organic Gas (ROG)	6.60 lbs/day	6.60 lbs/day	24-136 lbs/day
Source: Road Construction Emissions Model, Version 8.1.0 & NSAQMD Guidelines for Assessing and Mitigating Air Quality Impacts of Land Use Projects, 2009			

All construction activities would follow the NSAQMD rules and would implement all appropriate air quality BMPs, including minimizing equipment idling time and use of water or similar chemical palliative to control fugitive dust.

Operational Emissions

The replacement bridge would provide sufficient width for two lanes, one in each direction. This widening would not be considered capacity-increasing. Currently, the number of vehicles utilizing the existing bridge during peak hour traffic was 67. Peak hour traffic is generally assumed to be 10 percent of average daily traffic, which translates to the average daily traffic for the existing bridge being 670 vehicles. With the proposed project, peak hour traffic is estimated to be 70 vehicles, which would then imply an average daily traffic of 700 vehicles. This negligible increase is not anticipated to be associated with the project, but rather with the projected 0.6% annual growth rate for Nevada County, which is based on the most recent Nevada County RTP. The project is not anticipated to result in an increase of operational emissions. Impacts related to both Alternative 1 and 2 would be **Less than Significant with Mitigation**. The No-Build alternative would result in **No Impact**.

IMPACT AIR-3: Potential to expose sensitive receptors to substantial pollutant concentrations?

The proposed project would not generate any substantial pollutant concentrations, and the project location is in a sparsely populated area. However, recreational users that use the South Yuba River in the vicinity could be exposed to pollutants in the air caused by temporary construction activities. With the implementation of **AQ-1** and **AQ-2**, any potential temporary impacts would be reduced. Impacts related to both Alternative 1 and 2 would be **Less than Significant with Mitigation**. The No-Build alternative would result in **No Impact**.

IMPACT AIR-4: Potential to result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Short-term air quality impacts may occur due to the release of particulate emissions (airborne dust) generated by construction activities; however, they would not adversely affect any sensitive receptors due to none being present in or adjacent to the project area. Recreational users use the South Yuba River in the vicinity and could be exposed to other emissions and dust caused by construction activities, however, measure **AQ-1** would reduce potential impacts to a less than significant level. Impacts related to both Alternative 1 and 2 would be **Less than Significant with Mitigation**. The No-Build alternative would result in **No Impact**.

Alternatives Summary

Alternative 1 New Bridge approximately 60 feet upstream

Air quality impacts are not anticipated to be significant as a result of Alternative 1. There will be a temporary increase in emissions during construction across both alternatives, but they will be intermittent

and limited. Alternative 1 has values that are equal to Alternative 2, with a few exceptions where the values are more than Alternative 2. Of those values where they are more than Alternative 2, the difference is no greater than 0.21 pounds per day. With the mitigation measures below, impacts would be reduced to less than significant levels.

Alternative 2 New Bridge approximately 1,000 feet upstream

Air quality impacts are not anticipated to be significant as a result of Alternative 2. There will be a temporary increase in emissions during construction across both alternatives, but they will be intermittent and limited. Alternative 2 has values that are equal to Alternative 1, with a few exceptions where the values are less than Alternative 1. Of those values where they are less than Alternative 2, the difference is no greater than 0.21 pounds per day. The reason for this decrease when compared to Alternative 1 is likely due to the longer construction schedule associated with Alternative 2 which, overall, extends over more days. In addition, with the mitigation measures below, impacts would be reduced to less than significant levels.

Alternative 3 No-Build

This alternative would not build a replacement bridge upstream from the existing, structurally deficient bridge. No mitigation measures would be implemented.

3.3.5 Avoidance, Minimization, and/or Mitigation Measures

The minimization and mitigation measures would be implemented to reduce impacts to a less than significant level for both build alternatives.

AQ-1: Implement NSAQMD Level A Mitigations

Grid power shall be used (as opposed to diesel generators) for job site power needs where feasible during construction.

AQ-2: Implement NSAQMD Level B Mitigations

- Temporary traffic control shall be provided during all phases of the construction to improve traffic flow as deemed appropriate by local transportation projects and/or Caltrans.
- Construction activities shall be scheduled to direct traffic flow to off-peak hours as much as practicable.

3.4 BIOLOGICAL RESOURCES

3.4.1 Regulatory Setting

This section describes the Federal, State, and local plans, policies, and laws that are relevant to biological resources within the BSA.

Federal Laws and Requirements

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973 (16 U.S.C. section 1531 et seq.) provides for the conservation of endangered and threatened species listed pursuant to Section 4 of the Act (16 U.S.C. section 1533) and the ecosystems upon which they depend. These species and resources have been identified by United States Fish and Wildlife Services (USFWS) or National Marine Fisheries Service (NMFS).

Clean Water Act

The Clean Water Act (CWA) was enacted as an amendment to the Federal Water Pollutant Control Act of 1972, which outlined the basic structure for regulating discharges of pollutants to waters of the U.S. CWA serves as the primary Federal law protecting the quality of the nation's surface waters, including lakes, rivers, and coastal wetlands. CWA empowers the U.S. EPA to set national water quality standards and effluent limitations, and includes programs addressing both point-source and non-point-source pollution. Point-source pollution originates or enters surface waters at a single, discrete location, such as an outfall structure or an excavation or construction site. Non-point-source pollution originates over a broader area and includes urban contaminants in storm water runoff and sediment loading from upstream areas. CWA operates on the principle that all discharges into the nation's waters are unlawful unless they are specifically authorized by a permit; permit review is CWA's primary regulatory tool.

The United States Army Corps of Engineers (USACE) regulates discharges of dredged or fill material into waters of the U. S. These waters include wetlands and non-wetland bodies of water that meet specific criteria, including a direct or indirect connection to interstate commerce. USACE regulatory jurisdiction pursuant to Section 404 of the CWA is founded on a connection, or nexus, between the water body in question and interstate commerce. This connection may be direct (through a tributary system linking a stream channel with traditional navigable waters used in interstate or foreign commerce) or may be indirect (through a nexus identified in USACE regulations).

The Regional Water Quality Control Board (RWQCB) has jurisdiction under Section 401 of the CWA and regulates any activity which may result in a discharge to surface waters. Typically, the areas subject to jurisdiction of the RWQCB coincide with those of USACE (i.e., waters of the U.S. including any wetlands). The RWQCB also asserts authority over "waters of the State" under waste discharge requirements pursuant to the Porter-Cologne Water Quality Control Act.

State Laws and Requirements

California Environmental Quality Act

California State law created to inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities and to work to reduce these negative environmental impacts. Nevada County is the CEQA lead agency for this project.

California Endangered Species Act

The California Endangered Species Act (CESA) (California Fish and Game (CFG) Code Section 2050 et seq.) requires the California Department of Fish and Wildlife (CDFW) to establish a list of endangered and threatened species (Section 2070) and to prohibit the incidental taking of any such listed species except as allowed by the Act (Sections 2080-2089). In addition, CESA prohibits take of candidate species (under consideration for listing).

CESA also requires the CDFW to comply with CEQA (Pub. Resources Code Section 21000 et seq.) when evaluating incidental take permit applications (CFG Code Section 2081(b) and California Code Regulations, Title 14, section 783.0 et seq.), and the potential impacts the project or activity for which the application was submitted may have on the environment. CDFW's CEQA obligations include consultation with other public agencies which have jurisdiction over the project or activity [California Code Regulations, Title 14, Section 783.5(d)(3)]. CDFW cannot issue an incidental take permit if issuance would jeopardize the continued existence of the species [CFG Code Section 2081(c); California Code Regulations, Title 14, Section 783.4(b)].

Section 1602: Streambed Alteration Agreement

Under CFG Code 1602, public agencies are required to notify CDFW before undertaking any project that will divert, obstruct, or change the natural flow, bed, channel, or bank of any river, stream, or lake. Preliminary notification and project review generally occur during the environmental process. When an existing fish or wildlife resource may be substantially adversely affected, CDFW is required to propose reasonable project changes to protect the resources. These modifications are formalized in a Streambed Alteration Agreement that becomes part of the plans, specifications, and bid documents for the project.

Section 3503 and 3503.5: Bird and Raptors

CFG Code Section 3503 prohibits the destruction of bird nests and Section 3503.5 prohibits the killing of raptor species and destruction of raptor nests. Trees and shrubs are present in and adjacent to the study area and could contain nesting sites.

Section 3513: Migratory Birds

CFG Code Section 3513 prohibits the take or possession of any migratory non-game bird as designated in the Migratory Bird Treaty Act (MBTA) or any part of such migratory non-game bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

3.4.2 Environmental Setting and Existing Conditions

Online research, field surveys, and a focused rare plant survey were conducted to identify special status species and sensitive habitats that may be affected by the project. A Biological Study Area (BSA) was defined using the project area plus a 50-foot buffer beyond the project area boundaries. One species in particular was identified as having a high potential to occur, the foothill yellow-legged frog (FYLF), and, therefore, comprehensive surveys were conducted and a report prepared.

A Natural Environment Study was prepared by Dokken Engineering in March 2021 to identify temporary and permanent impacts to biological resources within the project area (Caltrans 2021).

The project is in unincorporated Nevada County, approximately 4 miles north of Nevada City. It is located within the North Sierra Foothills floristic province and U.S. Forest Service ecological section M261F (Sierra Nevada Foothills) (USFS 2007). The region receives an average of 50 inches of precipitation annually in the form of rain and irregular snow. Elevation within the BSA ranges from 1,950 to 2,100 feet above mean sea

level. The average annual high temperature is 67°F and average annual low temperature is 45°F (U.S. Climate Data 2020).

Study Area

The BSA (see Figure 10 below) was defined by placing a 50-foot buffer around all anticipated work areas, staging areas, and access routes for construction. The BSA roughly follows the existing alignment of North Bloomfield-Graniteville Road including the existing Edwards Crossing Bridge but has been expanded to encompass the alignments of Alternative 1 and Alternative 2. The BSA is approximately 18.44 acres in total size.

Physical Conditions

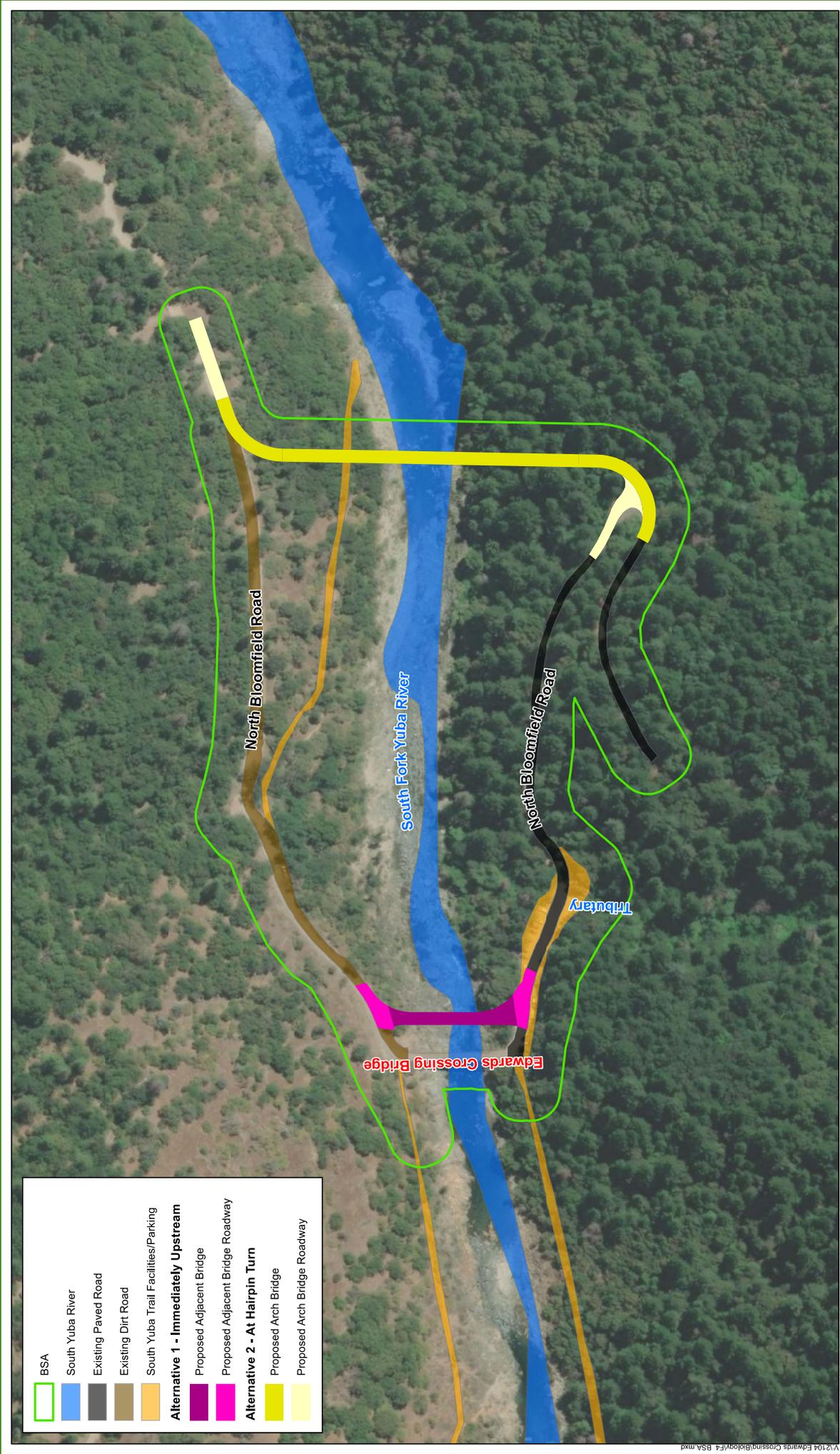
The BSA is within the North Bloomfield 7 ½ minute quadrangle at elevations between 1,950 and 2,100 feet above mean sea level. It is located in the western Sierra Nevada Foothills in a steep canyon cut by the South Fork of the Yuba River.

Soils

The land north of the South Fork Yuba River consists of rock land. South of the South Fork Yuba River, the land consists of Cohasset cobbly loam, 30 to 50 percent slopes. This soil type is well drained and is common of hills and mountains.

Hydrological Resources

The BSA is located entirely within the Upper Yuba River Watershed which encompasses a portion of Yuba County, Sierra County, and Nevada County. The BSA is bisected by the South Fork Yuba River which flows from east to west and convergences with the Yuba River. The Yuba River itself has confluence with the Feather River and eventually the Sacramento River. Within the BSA, the river exhibits typical characteristics of a mountain stream channel, such as a high entrenchment ratio and low sinuosity – consistent with a Rosgen “A” stream channel (Rosgen 1996).



- BSA
- South Yuba River
- Existing Paved Road
- Existing Dirt Road
- South Yuba Trail Facilities/Parking
- Alternative 1 - Immediately Upstream**
- Proposed Adjacent Bridge
- Proposed Adjacent Bridge Roadway
- Alternative 2 - At Hairpin Turn**
- Proposed Arch Bridge
- Proposed Arch Bridge Roadway

Source: ESRI Maps Online; Dokken Engineering 10/30/2020; Created By: cfravo



1 inch = 150 feet



Figure 10
Biological Study Area
 BRLO-5917(078)
 Edwards Crossing Bridge (17C-006) Replacement Project
 Nevada County, California

Biological Conditions

The BSA is composed of three different vegetation community types – mixed oak woodland, mixed coniferous forest, and montane riparian (see Figure 11 below). These communities, along with barren landcover and the riverine channel of the South Fork Yuba River and its associated tributary, make up the 18.44-acre BSA .

Mixed Oak Woodland

Mixed oak woodland is found on the south-facing slopes of the South Fork Yuba River, in the northern portion of the BSA. This community is dominated by interior live oak (*Quercus wislizeni*) and tanoak (*Notholithocarpus densiflorus*), mixed with subordinates such as California buckeye (*Aesculus californica*) and the occasional Ponderosa pine (*Pinus ponderosa*). The canopy is open, and the understory receives ample light. Due to this, the understory is composed of grasses such as dog tail (*Cynosurus echinatus*), blue wild rye (*Elymus glaucus ssp. glaucus*), and wild oat (*Avena fatua*). Mixed oak woodland makes up approximately 6.21 acres (~34%) of the BSA.

Mixed Coniferous Forest

The north-facing slopes of the South Fork Yuba River in the southern portion of the BSA are composed of mixed coniferous forest. The mixed coniferous forest is dominated by Douglas fir (*Pseudotsuga menziesii*). Big-leafed maple (*Acer macrophyllum*) and interior live oak are also common in this community within the BSA (see Figure 11 below). The understory is relatively open compared to the typical dense forest. Shrubby species are present at the forest edges, where light is more available. These include California blackberry (*Rubus ursinus*) and chaparral honeysuckle (*Lonicera interrupta*). Elsewhere, the forest floor is dominated by low ferns, vines, and forbs, such as sword fern (*Polystichum imbricans*), Algerian ivy (*Hedera canariensis*), and mountain misery (*Chamaebatia foliolosa*). Mixed coniferous forest makes up approximately 6.90 acres (~37%) of the BSA.

Montane Riparian

The montane riparian habitat within the BSA occurs in a thin band along the banks of the South Fork Yuba River between the riverine channel and the adjacent woodland and forest habitat. This habitat is dominated by characteristic riparian trees such as willows (*Salix sp.*) and cottonwoods (*Populus sp.*). The vegetation in this habitat grows from mesic cracks in boulders at the edge of the South Fork Yuba River channel. This montane riparian habitat makes up approximately 1.09 acres (~6%) of the BSA.

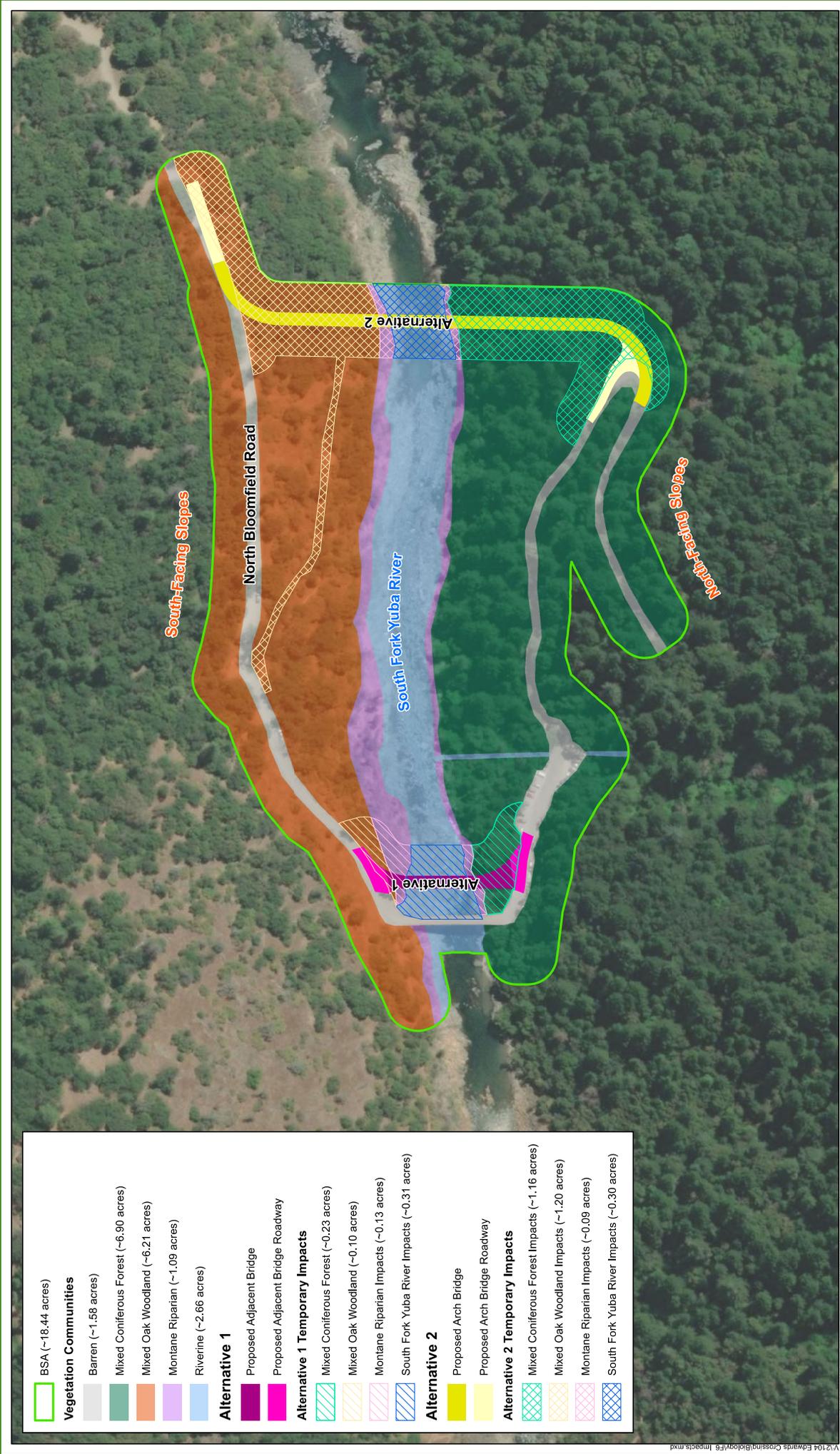
Riverine Channel

Riverine habitat found in the BSA is within the South Fork Yuba River channel and at the small tributary found to the south of the river. This includes permanently and semi-permanently wetted areas, including the rocky, unvegetated banks of the South Fork Yuba River. Riverine channel makes up approximately 2.66 acres (~14%) of the BSA.

Barren

The barren land cover type found in the BSA consists of paved roadways, dirt public access trails, and unvegetated roadway shoulders. Barren land is approximately 1.58 acres (~9%) of the BSA.

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Vegetation Communities	
	BSA (~18.44 acres)
	Barren (~1.58 acres)
	Mixed Coniferous Forest (~6.90 acres)
	Mixed Oak Woodland (~6.21 acres)
	Montane Riparian (~1.09 acres)
	Riverine (~2.66 acres)
Alternative 1	
	Proposed Adjacent Bridge
	Proposed Adjacent Bridge Roadway
Alternative 1 Temporary Impacts	
	Mixed Coniferous Forest (~0.23 acres)
	Mixed Oak Woodland (~0.10 acres)
	Montane Riparian Impacts (~0.13 acres)
	South Fork Yuba River Impacts (~0.31 acres)
Alternative 2	
	Proposed Arch Bridge
	Proposed Arch Bridge Roadway
Alternative 2 Temporary Impacts	
	Mixed Coniferous Forest Impacts (~1.16 acres)
	Mixed Oak Woodland Impacts (~1.20 acres)
	Montane Riparian Impacts (~0.09 acres)
	South Fork Yuba River Impacts (~0.30 acres)

Source: ESRI Maps Online; Dokken Engineering 10/30/2020; Created By: cfrvo



1 inch = 150 feet



Figure 11
Project Impacts
 BRLO-5917(078)
 Edwards Crossing Bridge (17C-006) Replacement Project
 Nevada County, California

Aquatic Resources

The aquatic resources within the BSA include the South Fork Yuba River and a small tributary to the river which occurs to the south of the main channel. Within the BSA, the main channel of the river is perennially flowing, with rocky, cobbly, and gravelly substrate mixed with occasional sand. The river supports vegetative cover of less than 30% and lacks planktonic forms, due to the substrate composition and rate of flow. The river has a high gradient and the floodplain in this area is underdeveloped or nonexistent (NWI 2020). Within the BSA, the small tributary flows down the southern slope via a steep, rocky route that supports mesic vegetation, such as ferns and bryophytes. The tributary is seasonal and cannot support fish or aquatic wildlife. It travels under North Bloomfield-Graniteville Road to eventually drain into the channel of the South Fork Yuba River.

Plant and Wildlife Species

Much of the habitat within the BSA is suitable for typical mountainous plant and wildlife species, such as migratory birds, large and small mammals, large coniferous trees, ferns, and forbs. All species that were observed during survey efforts or database research are listed in Appendix C.

Invasive Species

Of the 50 plant species observed during the survey efforts, 10 species (20%) are considered invasive by the California Invasive Plant Council (Cal-IPC). The dominant tree and shrub species are native; however, several of the grasses and herbs found within the BSA are invasive species. Invasive grasses include Mediterranean barley (*Hordeum marinum* spp. *gussoneanum*), ripgut (*Bromus diandrus*), and wild oat (*Avena fatua*). Invasive herbs include curly dock (*Rumex crispus*), Italian thistle (*Carduus pycnocephalus*), and Algerian ivy (*Hedera canariensis*). Invasive grasses mostly occur within the mixed oak woodland but are also present on the edge of the mixed coniferous forest community. Algerian ivy is the most prevalent invasive species within the mixed coniferous forest. While invasive species are present in the BSA, they are not dominant and largely occur along the roadways and in other more disturbed parts of the landscape.

Habitat Connectivity

According to the CDFW Biogeographic Information and Observation System (BIOS) Habitat Connectivity Viewer, the BSA is within a Terrestrial Connectivity Area of Conservation Emphasis with a connectivity rank 5: Irreplaceable and Essential Corridors (CDFW 2020). In addition, BIOS also reports the South Fork Yuba River as an Essential Connectivity Area (CDFW 2020).

3.4.3 Thresholds of Significance

Would the Project:

- a) *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, or NOAA Fisheries?*
- 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 Wildlife or U.S. Fish and Wildlife Service?*
- 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?*
- d) *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*
- e) *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*
- f) *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

3.4.4 Environmental Impacts

IMPACT BIO-1: Potential to 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 Wildlife, U.S. Fish and Wildlife Service, or NOAA Fisheries.

Plant and wildlife species are considered to have special status if they have been listed as such by Federal or State agencies or by one or more special interest groups, such as California Native Plant Society (CNPS). Prior to the field surveys, online databases from USFWS, California Natural Diversity Database (CNDDDB), CNPS, and NMFS were queried for presence of potential threatened, endangered, rare, or special status species (Appendix C). A shapefile of the BSA was used to generate an official species list through the IPaC operated by USFWS. The USGS 7.5-minute quadrangles of North Bloomfield, Pike, Camptonville, Nevada City, Alleghany, and Washington were used to generate the CNDDDB and CNPS species list. The NMFS species list was generated using the North Bloomfield USGS quadrangle. Through the literature research, habitat assessments, and biological surveys the two species below were determined to have a high potential to occur.

- Foothill yellow-legged frog (*Rana boylei*)
- Cantelow's lewisia (*Lewisia cantelovii*)

Cantelow's Lewisia

Cantelow's lewisia (*Kewisia cantelovii*) is a perennial herb and a California endemic with a rare plant rank of 1B.2. It is endangered in California due to horticultural collecting and road activity, and it is known from only 73 occurrences (CNPS 2020). The species can be found on granite cliff faces and rocky outcrops, often near seeps and riparian vegetation. Typical communities inhabited by the species include yellow pine forest, mixed evergreen forest, foothill woodlands, and chaparral (Calflora 2020).

The species was not observed within the BSA during rare plant surveys and thus is unlikely to occur within the BSA. In addition, the species occurs on rock faces and cliff faces, which project impacts would largely avoid due to inaccessibility and reach of anticipated machinery. Due to these factors, project impacts to Cantelow's lewisia are not anticipated, however, measure **BIO-10** would be implemented to survey for rare plants.

Foothill Yellow-Legged Frog

In December of 2019 the CFG Commission made a listing decision under CESA regarding the FYLF. According to the FYLF status review, published by CDFW in September 2019, there are 5 distinct genetic clades of FYLF throughout California. Due to the genetic diversity, geographic isolation, and varying threats within the FYLF populations listing of the species has been separated by clade. The southwest/south coast clade, west/central coast clade and the east/southern Sierra clade are listed as state endangered under CESA and the northeast/northern Sierra and the Feather River clade are listed as state threatened under CESA. The FYLF population with high potential to occur in the BSA is part of the northeast/northern Sierra clade listed as threatened under CESA (CDFW 2019a).

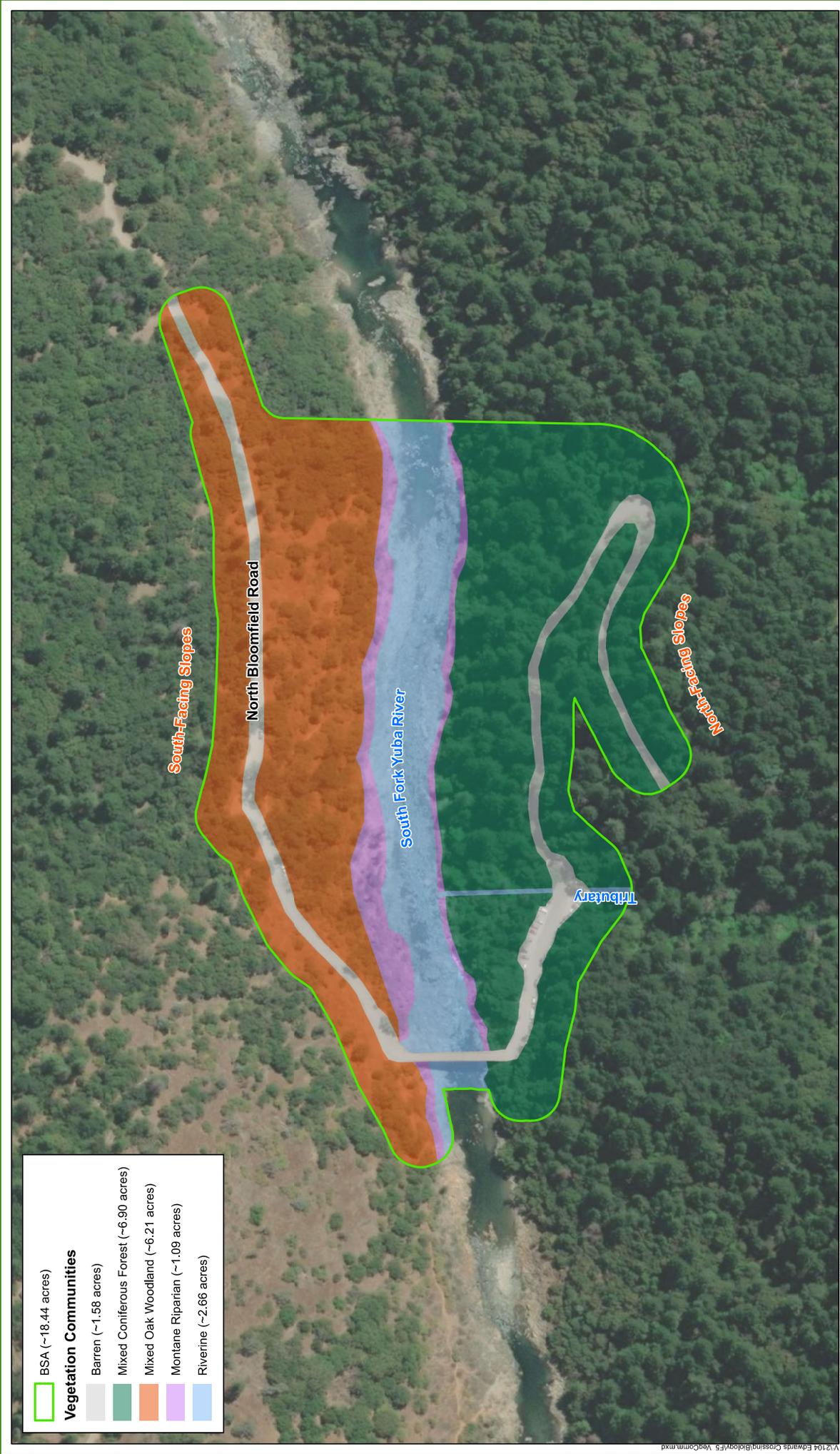
The FYLF can be found in partly shaded, shallow streams and rocky riffles in a variety of habitats including valley-foothill hardwood, valley-foothill riparian, mixed conifer, coastal scrub, and mixed chaparral. The species requires some cobble-sized substrate for egg laying and a water source persisting for at least 15 weeks for larval metamorphosis. The main predators for FYLF are garter snakes, bullfrogs, and centrarchid fish which were introduced into foothill streams. The FYLF occurs from elevations near sea level to 6,370 ft and within 33 ft of a breeding water source (Zeiner 1988-1990, Cal-Herps 2020).

During focused amphibian surveys conducted by ECORP Consulting, Inc. in April and July of 2020, several FYLF individuals were observed within the BSA. Approximately 50 FYLF individuals were observed during the first survey effort, and approximately 20 were observed during the second survey. No tadpoles were documented; however, the majority of frogs observed, particularly in the first survey, were juvenile. Several adults were noted as well throughout the entire span of the South Fork Yuba River within the BSA. The results of this survey are found in the Natural Environment Study for the project. Impacts related to both Alternative 1 and 2 would be **Less than Significant with Mitigation**. The No-Build alternative would result in **No Impact**.

IMPACT BIO-2: Potential to 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.

Project impacts to sensitive habitats, including montane riparian habitat, which makes up approximately 1.09 acres of the project area, would be temporary for both alternatives (see Figure 12 below). New bridge footings and the approach roadway would be constructed outside of the river channel and the adjacent narrow patch of montane riparian vegetation. Some montane riparian vegetation may need to be cleared; however, the area would be returned to pre-construction conditions and permanent impacts to montane riparian habitat are not anticipated. Temporary impacts to the montane riparian corridor from the construction of a temporary trestle are anticipated to be approximately 0.13 acres for Alternative 1 and

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Vegetation Communities	
	BSA (~18.44 acres)
	Barren (~1.58 acres)
	Mixed Coniferous Forest (~6.90 acres)
	Mixed Oak Woodland (~6.21 acres)
	Montane Riparian (~1.09 acres)
	Riverine (~2.66 acres)

Source: ESRI Maps Online; Dokken Engineering 10/28/2020; Created By: cfravo



1 inch = 150 feet



Figure 12
Waters and Vegetation Communities within the BSA
 BRLO-5917(078)
 Edwards Crossing Bridge (17C-006) Replacement Project
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approximately 0.09 acres for Alternative 2; measures **BIO-1** through **BIO-9** would avoid impacts to the greatest extent possible. Impacts related to both Alternative 1 and 2 would be **Less than Significant with Mitigation**. The No-Build alternative would result in **No Impact**.

IMPACT BIO-3: Potential to 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.

The South Fork Yuba River is considered a Water of the U.S. and of the State and is under the jurisdiction of the USACE and the Central Valley RWQCB. Riverine habitat found in the BSA is within the South Fork Yuba River channel and at the small tributary found to the south of the river. This includes permanently and semi-permanently wetted areas, including the rocky, unvegetated banks of the South Fork Yuba River, which makes up approximately 2.66 acres of the BSA. For both alternatives, a bridge would be constructed above the ordinary high-water mark (OHWM) and would span the entire length of the river, so no permanent impacts to the South Fork Yuba River, its associated tributary, or montane riparian habitat are anticipated. With the implementation of avoidance and minimization measures **BIO-1** through **BIO-7**, permanent impacts to the South Fork Yuba River are not anticipated and temporary impacts would be minimized to the greatest extent feasible. No compensatory mitigation is proposed.

The permits that would be required for project activities include a §1602 Streambed Alteration Agreement from CDFW, a §401 Water Quality Certification from the Central Valley RWQCB, and a §404 permit from the USACE. Impacts related to both Alternative 1 and 2 would be **Less than Significant with Mitigation**. The No-Build alternative would result in **No Impact**.

IMPACT BIO-4: Potential to interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

The project is not anticipated to have any effects to the habitat connectivity for birds or fish. No loss of or impediments to habitat connectivity are anticipated. The project area includes habitat for foothill yellow-legged frog, impacts will be reduced to the greatest extent possible through BMPs and avoidance and minimization measures. An incidental take permit will be acquired for the project; implementation of measures **BIO-1** through **BIO-2** and **BIO-12** through **BIO-15** will limit the interference with the species movement to a less than significant level. Impacts related to both Alternative 1 and 2 would be **Less than Significant with Mitigation**. The No-Build alternative would result in **No Impact**.

IMPACT BIO-5: Potential to conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

The project would have the potential to conflict with the County's tree ordinance that promotes tree preservation. However, with the implementation of **BIO-11**, there would be no conflict with any local policies or ordinances. Impacts related to both Alternative 1 and 2 would be **Less than Significant with Mitigation**. The No-Build alternative would result in **No Impact**.

IMPACT BIO-6: Potential to conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

The project would not conflict with any adopted Habitat Conservation Plan or other habitat conservation plans. Therefore, Alternative 1 and 2 would result in **No Impact**. The No-Build alternative would result in **No Impact**.

Alternatives Summary

Alternative 1 New Bridge approximately 60 feet upstream

Permanent impacts to mixed oak woodland and mixed coniferous forest would occur. In addition, temporary impacts are anticipated for the creation of access areas and the construction of a temporary trestle across the river. Alternative 1 would have temporary impacts to approximately 0.10 acres of mixed oak woodland, 0.23 acres of mixed coniferous forest, 0.13 acres of montane riparian, and 0.31 acres of the South Fork Yuba River. Mitigation would be required for impacts to the South Fork Yuba River and montane riparian habitat and would be satisfied by minimizing vegetation removal, allowing trimmed vegetation to grown back, and on-site re-vegetating using a native seed mix. The removal of trees would also require mitigation efforts, which would be completed via replanting or payment to a Tree Preservation Fund in accordance with Nevada County Code. With the mitigation measures below, impacts would be reduced to less than significant levels.

Alternative 2 New Bridge approximately 1,000 feet upstream

Permanent impacts to mixed oak woodland and mixed coniferous forest would occur. In addition, temporary impacts are anticipated for the creation of access areas and the construction of a temporary trestle across the river. Alternative 2 would have temporary impacts to approximately 1.20 acres of mixed oak woodland, 1.16 acres of mixed coniferous forest, 0.09 acres of montane riparian, and 0.30 acres of the South Fork Yuba River. Mitigation would be required for impacts to the South Fork Yuba River and montane riparian habitat and would be satisfied by minimizing vegetation removal, allowing trimmed vegetation to grown back, and on-site re-vegetating using a native seed mix. The removal of trees would also require mitigation efforts, which would be completed via replanting or payment to a Tree Preservation Fund in accordance with Nevada County Code. With the mitigation measures below, impacts would be reduced to less than significant levels.

Alternative 3 No-Build

No mitigation measures would be implemented under this alternative since the project would not occur.

3.4.5 Avoidance, Minimization, and/or Mitigation Measures

Permanent impacts to the South Yuba River, montane riparian corridor, FYLF habitat, are not anticipated. The implementation of the measures below would avoid, minimize, or mitigate impacts to the greatest extent possible.

BIO-1: Best Management Practices:

- Existing vegetation would be protected where feasible to reduce erosion and sedimentation. Vegetation would be preserved by installing temporary fencing, or other protection devices, around sensitive biological resources.
- Exposed soils would be covered by loose bulk materials or other materials to reduce erosion and runoff during rainfall events.
- Exposed soils would be stabilized, through watering or other measures, to prevent the movement of dust at the Project site caused by wind and construction activities such as traffic and grading activities.
- All concrete curing activities would be conducted to minimize spray drift and prevent curing compounds from entering the waterway directly or indirectly.
- All construction materials, vehicles, stockpiles, and staging areas would be situated outside of the stream channel as feasible. All stockpiles would be covered, as feasible.

- All erosion control measures and storm water control measures would be properly maintained until final grading has been completed and permanent erosion control measures are implemented.
 - All disturbed areas would be restored to pre-construction contours and revegetated, where applicable, either through hydroseeding or other means, with native or approved non-invasive exotic species.
 - All construction materials would be hauled off-site after completion of construction.
- BIO-2:** Prior to the start of construction activities, the Project limits in proximity to jurisdictional waters and foothill riparian habitat must be marked with high visibility Environmentally Sensitive Area (ESA) fencing or staking to ensure construction will not further encroach into waters or sensitive habitats. The Project biologist will periodically inspect the ESA to ensure sensitive locations remain undisturbed.
- BIO-3:** Refueling or maintenance of equipment without secondary containment shall not be permitted to occur on the temporary trestle or within 100 feet of the South Fork Yuba River. All refueling and maintenance that must occur within 100 feet of the river must occur over plastic sheeting or other secondary containment measures to capture accidental spills before they can contaminate the soil. Secondary containment must have a raised edge (e.g. sheeting wrapped around wattles).
- BIO-4:** Equipment will be checked daily for leaks and will be well maintained to prevent lubricants and any other deleterious materials from entering the South Fork Yuba River and the associated riparian area.
- BIO-5:** Vehicle maintenance, staging and storing equipment, materials, fuels, lubricants, solvents, and other possible contaminants shall remain outside of sensitive habitat marked with high-visibility fencing. Any necessary equipment washing shall occur where the water cannot flow into sensitive habitat communities.
- BIO-6:** A chemical spill kit shall be kept onsite and available for use in the event of a spill.
- BIO-7:** Secondary containment consisting of plastic sheeting or other impermeable sheeting shall be installed underneath all stationary equipment to prevent petroleum products or other chemicals from contaminating the soil or from spilling directly into the South Fork Yuba River. Secondary containment must have a raised edge (e.g. sheeting wrapped around wattles).
- BIO-8:** Vegetation clearing will only occur within the delineated Project limits. An ESA fence will be provided on the final plans to delineate which trees can be saved and which will be removed. Where possible, trees will be trimmed rather than removed fully with the guidance of a certified arborist. Vegetation will only be cleared where necessary and, when feasible, will be cut above soil level.
- BIO-9:** Impacts to natural communities within the BSA shall be re-vegetated with native seed mix. The impact area shall be fully re-planted with the native seed mix and allowed to return to pre-construction conditions.
- BIO-10:** In the spring blooming season immediately prior to construction, a rare plant survey will be conducted by a qualified biologist in order to detect the occurrence of special status plant species within the BSA. Specifically, the rare plant survey will focus on areas where the Butte County fritillary, Cantelow's lewisia, and Sierra blue grass are most likely to occur within the

Project impact area. If an individual or population of a rare species is discovered within the BSA, a no-work buffer will be established around the individual or population and delineated with ESA fencing. Disturbance to and collection of any rare plant species is not permitted.

- BIO-11:** If tree removal is required for Project activities, replacement of removed trees within the BSA would occur at a 1:1-inch diameter at standard height (DSH) ratio. If replacement of removed trees on-site is determined to be infeasible, mitigation shall be completed by payment to the Bear Yuba Land Trust or other Nevada County-approved entity, based on the assessment of tree damage/loss at a 1:1 ratio (minimum one acre). The fee shall include any required transaction and other potential fees required by said entity.
- BIO-12:** Prior to any ground disturbing activities within the South Fork Yuba River channel or montane riparian habitat, FYLF exclusion fencing will be established on the edge of the Project boundary within montane riparian habitat and along the water's edge of the South Fork Yuba River within the Project limits. The exclusion fencing within montane riparian habitat will consist of silt fencing, or a similar plastic material, at least 3 feet high. The top few inches of the fence must be curved away (outside) from the construction area to curtail climbing frogs and shall be dug at least 6 inches into the ground. Exclusion fencing at the edge of the South Fork Yuba River should consist of a ¼ inch mesh or smaller opening material and must be sufficiently anchored to the streambed with rocks and gravel to prevent immigration of frogs and tadpoles underneath into the construction area. The exclusion fencing shall be installed as soon as possible after cessation of winter flows and before the frogs begin to breed.
- BIO-13:** Prior to vegetation removal within montane riparian habitat or the South Fork Yuba River channel, an agency-approved biologist must first inspect all areas where ground disturbing activity is anticipated. The agency-approved biologist must observe all vegetation clearing and grubbing and will have stop work authority. If a special status wildlife species is spotted within an active work area, the agency-approved biologist shall immediately stop work activities until the animal has left the Project area. The biologist will coordinate with CDFW to determine if further measures are necessary at that point.
- BIO-14:** The agency-approved biologist shall perform daily clearance sweeps of all in stream areas and surrounding riparian areas of construction activity prior to the commencement of work.
- BIO-15:** The agency-approved biologist will keep daily monitoring logs of construction activities and FYLF activities.
- BIO-16:** Upon completion of construction activities, the temporary trestle and any barriers to flow will be removed, with oversight from the agency-approved biologist, in a manner that would allow flow to resume with the least disturbance to the substrate.
- BIO-17:** The construction contractor shall avoid removing mature trees during the nesting bird season (February 15 –August 31). If trees must be removed within the nesting season, a pre-construction nesting raptor survey must be conducted no more than 3 days prior to vegetation removal. The trees must be removed within 3 days from the nesting raptor survey. A minimum 300-foot no-disturbance buffer will be established around any nesting northern goshawks. The contractor must immediately stop work in the nesting area until the appropriate buffer is established and is prohibited from conducting work that could disturb the birds (as determined by the Project biologist and in coordination with the County) in the buffer area until a qualified biologist determines the young have fledged.

- BIO-18:** Prior to construction, a reconnaissance level survey shall be conducted by the Project biologist to detect the western bumble bee if it is present within the BSA. The survey will be conducted in the springtime, during peak blooming season, when the western bumble bee is more likely to be encountered. High definition cameras will be utilized during survey efforts to capture unique physical characteristics of each bee species encountered. Photos will be submitted to online databases that employ bee experts, such as Bumble Bee Watch or Bee Spotters, as suggested in the Survey Protocols for the Rusty Patched Bumble Bee. If the western bumble bee is presumed present within the BSA, additional coordination with CDFW will occur to determine appropriate measures to avoid impacts to the special-status bee species.
- BIO-19:** Prior to the commencement of construction activities, a qualified biologist must conduct a focused western pond turtle survey within the Project impact areas in the South Fork Yuba River and montane riparian habitat. The biologist will relocate any western pond turtles found to an area downstream from the BSA. If western pond turtles are found within the BSA, the biologist will coordinate with CDFW to determine if additional exclusion measures are required at that time.
- BIO-20:** If construction crews observe a turtle within the Project impact area, work shall be stopped within 50 feet of the turtle until the turtle has left the Project area or the biologist has been notified, has identified the turtle as a western pond turtle, and has relocated the individual. Only the qualified biologist is permitted to touch a western pond turtle.
- BIO-21:** Prior to arrival at the Project site and prior to leaving the Project site, construction equipment that may contain invasive plants and/or seeds shall be cleaned to reduce the spreading of noxious weeds.
- BIO-22:** If hydroseed and plant mixes are used during or post-construction, plant species must consist of a biologist approved plant palette seed mix of native species sourced locally to the Project area.
- BIO-23:** The construction contractor shall avoid removing any vegetation during the nesting bird season (February 15 –August 31). If vegetation must be removed within the nesting season, a pre-construction nesting bird survey must be conducted no more than 3 days prior to vegetation removal. The vegetation must be removed within 3 days from the nesting bird survey.
- A minimum 100-foot no-disturbance buffer will be established around any active nest of migratory birds and a minimum 300-foot no-disturbance buffer will be established around any nesting raptor species. The contractor must immediately stop work in the nesting area until the appropriate buffer is established and is prohibited from conducting work that could disturb the birds (as determined by the Project biologist and in coordination with the County) in the buffer area until a qualified biologist determines the young have fledged. A reduced buffer can be established if determined appropriate by the Project biologist and approved by the County.
- BIO-24:** All construction crew members shall allow wildlife enough time to escape initial clearing and grubbing activities. Initial clearing and grubbing must be accomplished through the use of hand tools.
- BIO-25:** The contractor shall dispose of all food-related trash in closed containers and must remove it from the Project area each day during construction. Construction personnel must not feed or attract wildlife to the Project area.

BIO-26: The contractor must not apply rodenticide or herbicide within the BSA during construction.

3.5 CULTURAL RESOURCES

3.5.1 Regulatory Setting

Federal Laws and Requirements

National Historic Preservation Act Section 106

Section 106 of the National Historic Preservation Act (NHPA) of 1966 requires Federal agencies to take into account the effects of their undertakings on historic properties and to provide the Advisory Council on Historic Preservation (ACHP) with a reasonable opportunity to comment. In addition, Federal agencies are required to consult on the Section 106 process with State Historic Preservation Offices (SHPO), Tribal Historic Preservation Offices (THPO), Indian Tribes (to include Alaska Natives) [Tribes], and Native Hawaiian Organizations (NHO).

Section 106 Programmatic Agreement

Pursuant to the X.B.1 of the January 2014 First Amended Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act (Section 106 PA), as well as under Public Resources Code 5024 and pursuant to the January 2015 Memorandum of Understanding Between the California Department of Transportation and the California State Historic Preservation Office Regarding Compliance with Public Resources Code Section 5024 and Governor's Executive Order W-26-92 (5024 MOU), the Caltrans District may make a finding of "No Adverse Effect with Standard Conditions" when standard conditions that will avoid adverse effects to historic properties are imposed in accordance with Attachment 5 of the Section 106 PA. The Caltrans District shall submit its finding and supporting documentation to the Caltrans Cultural Services Office (CSO) for review. Should CSO approve the finding, the undertaking shall not be subject to further review under the Section 106 PA.

National Register Criteria for Evaluation of Historic Resources

Criteria for Evaluation

The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- A. That are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. That are associated with the lives of significant persons in our past; or
- C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction;
or
- D. That have yielded or may be likely to yield, information important in history or prehistory.

Criteria Considerations

Ordinarily cemeteries, birthplaces, graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

- A. A religious property deriving primary significance from architectural or artistic distinction or historical importance; or
- B. A building or structure removed from its original location, but which is primarily significant for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or
- C. A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building associated with his or her productive life; or
- D. A cemetery that derives its primary importance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or
- E. A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or
- F. A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own exceptional significance; or
- G. A property achieving significance within the past 50 years if it is of exceptional importance.

State Laws and Requirements

California Environmental Quality Act (CEQA)

CEQA consists of statutory provisions in the Public Resources Code (PRC) and Guidelines promulgated by the Office of Planning and Research. The CEQA requires public agencies to evaluate the implications of their project(s) on the environment and includes significant historical resources as part of the environment. A project that causes a substantial adverse change in the significance of an historical resource has a significant effect on the environment CCR 14 Section 15064.5; California PRC Section 21098.1). CEQA defines a substantial adverse change as follows.

- Physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired (CCR 14 Section 15064.5[b][1]).

The CEQA Guidelines provide that the significance of an historical resource is materially impaired when a project results in the following:

- Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources (CRHR); or

- Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to PRC Section 5020.1(k) or its identification in an historical resources survey meeting the requirements of PRC Section 5024.1(g), unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
- Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the CRHR as determined by a Lead Agency for purposes of CEQA (CCR 14 Section 15064.5[b][2]).

California Register of Historical Resources: Public Resources Code Section 5024

The term historical resource includes, but is not limited to, any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of PRC (PRC Section 5020.1[j]).

Historical resources may be designated as such through three different processes:

1. Official designation or recognition by a local government pursuant to local ordinance or resolution (PRC Section 5020.1[k]);
2. A local survey conducted pursuant to PRC Section 5024.1(g); or
3. The property is listed in or eligible for listing in the National Register of Historic Places (NRHP) (PRC Section 5024.1[d][1]).

The process for identifying historical resources is typically accomplished by applying the criteria for listing in the CRHR, which states that a historical resource must be significant at the local, state, or national level under one or more of the following four criteria.

It is associated with events that have made a significant contribution to the broad patterns of:

4. California's history and cultural heritage;
5. It is associated with the lives of persons important in our past;
6. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or
7. It has yielded, or may be likely to yield, information important in prehistory or history. (CCR 14 Section 4852).

To be considered a historical resource under the CEQA, the resource must also have integrity, which is the authenticity of a resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance. Resources, therefore, must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association. It must also be judged with reference to the criteria under which a resource is eligible for listing in the CRHR (CCR 14 Section 4852[c]).

Assembly Bill 52 (Public Resources Code Section 21084.2)

Effective July 1, 2015, CEQA was revised to include early consultation with California Native American tribes and consideration of Tribal Cultural Resources (TCRs). These changes were enacted through Assembly Bill 52 (AB 52). By including TCRs early in the CEQA process, AB 52 intends to ensure that local and Tribal governments, public agencies, and Project proponents would have information available, early

in the Project planning process, to identify and address potential adverse impacts to TCRs. The CEQA now establishes that a “Project with an effect that may cause a substantial adverse change in the significance of a TCR is a Project that may have a significant effect on the environment” (PRC § 21084.2).

To help determine whether a Project may have such an adverse effect, the PRC requires a lead agency to consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed Project. The consultation must take place prior to the determination of whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a Project (PRC § 21080.3.1). Consultation must consist of the lead agency providing formal notification, in writing, to the tribes that have requested notification or proposed Projects within their traditionally and culturally affiliated area. AB 52 stipulates that the Native American Heritage Commission (NAHC) shall assist the lead agency in identifying the California Native American tribes that are traditionally and culturally affiliated within the Project area. If the tribe wishes to engage in consultation on the Project, the tribe must respond to the lead agency within 30 days of receipt of the formal notification. Once the lead agency receives the tribe’s request to consult, the lead agency must then begin the consultation process within 30 days. If a lead agency determines that a Project may cause a substantial adverse change to TCRs, the lead agency must consider measures to mitigate that impact.

Consultation concludes when either: 1) the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a TCR, or 2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached (PRC § 21080.3.2). Under existing law, environmental documents must not include information about the locations of an archaeological site or sacred lands or any other information that is exempt from public disclosure pursuant to the Public Records act. TCRs are also exempt from disclosure. The term “tribal cultural resource” refers to either of the following:

Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

- Included or determined to be eligible for inclusion in the California Register of Historical Resources
- Included in a local register of historical resources as defined in subdivision (k) of California PRC Section 5020.1
- A resource determined by a California lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of the PRC Section 5024.1.

Discovery of Human Remains

Section 7050.5 of the California Health and Safety Code (CHSC) states the following regarding the discovery of human remains:

- A. Every person who knowingly mutilates or disinters, wantonly disturbs, or willfully removes any human remains in or from any location other than a dedicated cemetery without authority of law is guilty of a misdemeanor, except as provided in Section 5097.99 of the [PRC]. The provisions of this subdivision shall not apply to any person carrying out an agreement developed pursuant to subdivision (l) of Section 5097.94 of the [PRC] or to any person authorized to implement Section 5097.98 of the [PRC].
- B. In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which

the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the California Government Code [CGC], that the remains are not subject to the provisions of Section 27491 of the CGC or any other related provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the PRC. The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains.

- C. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes the human remains to be those of a Native American or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the NAHC (CHSC Section 7050.5).
- D. Of particular note to cultural resources is subsection (c), which requires the coroner to contact the NAHC within 24 hours if discovered human remains are determined to be Native American in origin. After notification, NAHC will follow the procedures outlined in PRC Section 5097.98, which include notification of most likely descendants (MLDs), if possible, and recommendations for treatment of the remains. The MLD will have 24 hours after notification by the NAHC to make their recommendation (PRC Section 5097.98). In addition, knowing or willful possession of Native American human remains or artifacts taken from a grave or cairn is a felony under State law (PRC Section 5097.99).

Local Laws and Requirements

Nevada County General Plan

The Cultural Resources Element of the County General Plan includes the following applicable goals, objectives, and policies regarding cultural resources.

- *Goal 19.1, Identify and protect and where economically feasible restore significant archaeological and historic resources.*
 - *Objective 19.1, Encourage the inventory, protection, and interpretation of the cultural heritage of Nevada County, including historical and archaeological landscapes, sites, buildings, features, artifacts.*
 - *Objective 19.2, Implement development standards, including the preservation of open space, to protect identified significant cultural sites.*
 - *Objective 19.3, Include in the development review process consideration of historic, cultural, and Native American concerns and values.*

3.5.2 Environmental Setting and Existing Conditions

The horizontal Area of Potential Effects (APE) was established as the area of direct and indirect effects in both Alternative 1 and Alternative 2 and consists of an approximately 20-acre area. This includes all staging areas, temporary vehicle access, vegetation/tree removal, approach roadway realignment, bridge replacement, grading activities. The APE extends approximately 1,500 feet along North Bloomfield-Graniteville Road from both sides of the existing bridge and approximately 1,200 feet east of the existing

bridge and approximately 1,000 feet from the northern to southern extent of the APE boundary. The APE is located on lands managed by the BLM.

The vertical APE consists of a maximum of 15 feet of depth from the existing ground surface to below ground surface (bgs) to accommodate earthwork for the construction of bridge abutments and up to 50 feet to accommodate new permanent roadway changes. The minimum depth of ground disturbance is approximately 5 feet bgs, required for all roadway approach realignment work, vegetation removal, and fill compaction. The project does not involve relocation of any buried utilities.

Records Search

Dokken Engineering obtained a record search for the project area and a one-mile radius surrounding the project area from the North Central Information Center (NCIC), California State University, Sacramento on January 23, 2020. The record search was conducted by personnel from the Information Center. The search examined the OHP Historic Properties Directory, OHP Determinations of Eligibility, and *California Inventory of Historical Resources*.

The record search disclosed 28 NCIC resources within the one-mile record search boundary. Two of these resources are located within the APE and include the Edwards Crossing Bridge (Bridge #17C-0006 [P-29-0814]) at South Yuba River and the North Bloomfield Road (p-29-002436). The Edwards Crossing Bridge is classified as Category 1, eligible for listing on the NRHP – on the Caltrans Historic Bridge Inventory. The other resource located within the APE is North Broomfield Road (P-29-2436). The North Bloomfield Road did not have a previous State Historic Preservation Office (SHPO) concurred upon NRHP evaluation. One other resource, P-39-000770, a historic-era site, was mapped immediately adjacent to the APE; however no component of the site would be impacted by the Project.

Native American Outreach (AB52)

Native American Consultation has taken place during two different time periods. Initial consultation occurred in 2020 and additional consultation occurred in 2022. Both consultations are described below and discussed by year conducted.

2020 Native American Consultation

On January 15, 2020, Dokken Engineering sent a letter and a map depicting the project vicinity to the NAHC, asking the NAHC to review the SLF for any Native American cultural resources that might be affected by the project. A list of Native American individuals who might have information or concerns about the project was also requested. On January 21, 2020, Nancy Gonzalez-Lopez, Cultural Resource Analyst, informed Dokken Engineering via fax that a review of the SLF failed to indicate the presence of Native American cultural resources in the “immediate project area.” The 2020 contact list also only contained a single contact, Darrel Cruz, THPO of the Washoe Tribe of Nevada and California, who had previously stated that the Washoe Tribe of Nevada and California territory does not extend below the altitude of 5,000 feet.

On May 5, 2020, an initial consultation letter was sent to the Native American individual on the list provided by the NAHC. The letter provided a summary of the project and requested information regarding comments or concerns the Native American community might have about the project. No response was received from this letter and a follow-up email was sent February 10, 2021. The following summarizes the 2020 consultation efforts.

Darrel Cruz, Tribal Historic Preservation Officer, Washoe Tribe of Nevada and California. No response to initial letter. A follow-up email was sent on February 10, 2021.

2022 Native American Consultation

In April 2022, it was determined that a new contact list from the NAHC was needed. The list was obtained on June 28, 2022 and letters were sent on September 26, 2022. The following summarizes the 2022 consultation efforts:

Grayson Coney, Cultural Director, T'si-Akim Maidu Tribe. No response to initial letter. A follow-up email occurred on January 11, 2023 and again on March 7, 2023. No response has been received to date.

Don Ryberg, Chairperson, T'si-Akim Maidu Tribe. No response to initial letter. A follow-up email occurred on January 11, 2023 and again on March 7, 2023. No response has been received to date.

Gene Whitehouse, Chairperson, UAIC, Tribal Historic Preservation Department. An email was received on October 6, 2022 from Anna Starkey, Cultural Regulatory Specialist, stating that the Tribe would like to consult and also requesting cultural reports and photos of the APE. Project information, including site photos, were sent to Ms. Starkey on October 7, 2022. She was also informed that cultural reports were being drafted with Caltrans.

Darrel Cruz, THPO, Washoe Tribe of Nevada and California. No response to initial letter. A follow-up email occurred on January 11, 2023. An email was received on January 18, 2023 from Bernadette Nieto, Tribal Administrator, stating that the Tribe did not have any recommendations for the project but requested that a monitor be present during ground disturbance. Additionally, she stated that it is the Tribe's preference that if artifacts are found they remain protected in place..

Serrell Smokey, Chairperson, Washoe Tribe of Nevada and California. No response to initial letter. A follow-up email occurred on January 11, 2023. See consultation for Mr. Cruz above.

Dahlton Brown, Director of Administration, Wilton Rancheria. No response to initial letter. A follow-up email occurred on January 11, 2023 and again on March 7, 2023. No response has been received to date.

Jesus Tarango, Chairperson, Wilton Rancheria. No response to initial letter. A follow-up email occurred on January 11, 2023 and again on March 7, 2023. No response has been received to date.

Steven Hutchason, THPO, Wilton Rancheria. No response to initial letter. A follow-up email occurred on January 11, 2023 and again on March 7, 2023. No response has been received to date.

Pamela Cubbler, Colfax-Todds Valley Consolidated Tribe. No response to initial letter. A follow-up email occurred on January 11, 2023. A response was received from Ms. Cubbler on January 12, 2023 stating that the Tribe had concerns regarding the project and wished to consult. A phone conversation occurred with Ms. Cubbler on February 15, 2023, in which she requested additional information. Site photographs and maps were emailed on February 15, 2023. Another phone conversation occurred with Ms. Cubbler on March 7, 2023, in which she reviewed the submitted photos and stated that the Tribe would not request formal consultation but requested notification in case of late discovery.

Clyde Prout, Chairperson, Colfax-Todds Valley Consolidated Tribe. No response to initial letter. A follow-up email occurred on January 11, 2023. See consultation with Ms. Cubbler above.

Richard Johnson, Chairman, Nevada City Rancheria Nisenan Tribe. No response to initial letter. A follow-up email occurred on January 11, 2023 and again on March 7, 2023. No response has been received to date.

Field Methods

On November 4, 2020, the entire project area was subjected to an intensive pedestrian survey under the guidance of the Secretary of the Interiors Standard's for the Identification of Historic Properties by Michelle Campbell and Namat Hosseinion. The pedestrian survey was conducted at roughly 5-meter transect intervals paralleling the roadway where conditions allowed. All Project area field conditions and cultural resources were fully recorded in the field notes. Coverage varied in areas with vegetation coverage.

During survey, exposed subsurface cuts, such as those within the South Yuba River, roadway cuts, and bank cuts were examined for indications of surface or subsurface cultural resources, soil color change, and/or staining that could indicate past human activity or buried deposits.

Results

The pedestrian survey identified (although noted in 2000 by BLM) five previously unrecorded dry-stack historic-era retaining walls in the APE, as well as the Category 1 Edwards Crossing Bridge (Bridge #17C-0006 [P-29-0814]). The retaining walls are located south of the existing bridge, downslope (north) of the parking area, approximately 250 feet east of the bridge. The walls are made of mostly flat and angular, locally sourced cobble to boulder size rocks and they vary from two to four courses high. A trail that leads to the river winds through portions of the retaining walls. One of the retaining walls runs north to south and the other four walls run east to west, with the lower most one abutting the longer, north to south one, creating an "L" shape. There is an area of tumbled rocks that measures approximately 36 feet by approximately 28 feet along the southern upslope edge of the southernmost wall.

No evidence of the tollhouse or residence seen in the illustration for the 1880 History of Nevada County was discovered. The 2001 BLM monitoring report states that a burned debris deposit containing both 19th and 20th century artifacts was noted at the vault toilet location at 4-feet below the current roadway surface below roadway fill placed during an earlier phase of roadway construction. The 1904 bridge and roadway reconstruction and the later creation of the recreational parking area likely destroyed any evidence of the residence, tollhouse and other structures or features that potentially existed in that area.

The average surface visibility of the study area was 70 percent, except for paved and gravel road surfaces which exhibited no visible ground surface. Visibility was obscured in some areas by growth of trees, poison oak, and blackberries, primarily along the creek bed. Inspection of open surfaces, visible cut slopes, and stream cut banks during the field survey revealed no evidence of subsurface artifacts, features, or other indicators of past human use (such as soil change).

The potential for buried archaeological sites was addressed by visual inspections of creek banks, road cuts and geotechnical investigations. Some areas along the roadside have exposed bedrock or large boulders partially exposed on the ground surface. No indications of buried archaeological deposits, artifacts, soil staining, the presence of organic soils or anthrosoils were identified during the archaeological survey.

3.5.3 Thresholds of Significance

Would the Project:

- a) *Cause a substantial adverse change in the significance of a historical resource pursuant to in §15064.5?*
- b) *Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?*
- c) *Disturb any human remains, including those interred outside of dedicated cemeteries?*

3.5.4 Environmental Impacts

IMPACT CUL-1: Potential to cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

As listed in 36 CFR 800.5(a)(2), examples of adverse effects may include, but are not limited to, the following:

- i. Physical destruction of or damage to all or part of the property;
- ii. Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, that is not consistent with the Secretary's Standards for the Treatment of Historic Properties (36 CFR part 68) and applicable guidelines;
- iii. Removal of a property from its historic location;
- iv. Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;
- v. Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features;
- vi. Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and
- vii. Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

The historic property would not be destroyed or damaged in whole or in part as a result of the Project (i), nor would it be relocated (iii). The property would continue to be in operation as a pedestrian river crossing and would therefore not be neglected (vi). The property is also not a federally owned property and the County's ownership would not change as a result of this Project (vii).

However, the Project does have the potential to directly or indirectly affect the Edwards Crossing Bridge due to physical and visual changes. Specifically, the Project would alter existing features of the historic property (ii), as well as change the property's use and physical features within the property's setting (iv). Additionally, new visual features would be introduced adjacent to the property and in its general vicinity (v).

Build Alternative 1: New Bridge 60 Feet Upstream

Build Alternative 1 would include the rehabilitation of the existing Edwards Crossing Bridge exclusively for pedestrian use and the construction of a new bridge 60 feet upstream. It has the potential to affect the Edwards Crossing Bridge under the following examples of adverse effect: ii, iv, and v.

Example ii

Alternative 1 would alter the historic property in a manner not consistent with the Standards for the Treatment of Historic Properties (36 CFR part 68), specifically the Standards for Rehabilitation. The Project would therefore result in an adverse effect [36 CFR 800.5(a)(2)(ii)]. The following is an analysis of the proposed Alternative 1 for compliance with the Rehabilitation Standards.

Standard 1. A property will be used as it was historically or be placed in a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.

The use of the Edwards Crossing Bridge would change from multi-modal to exclusively pedestrian. The proposed new use would require minimal change to the distinctive materials and features of the historic property. Character-defining features and materials would be preserved overall. Select features would be maintained or repaired in order to facilitate the bridge's continued use, including the strengthening, repair, and repainting of steel members and lattice railing. The existing wood decking would also be repaired as necessary. New rock anchors would be installed at existing concrete footings. However, converting the existing multi-modal bridge to a pedestrian bridge necessitates construction of a new vehicular bridge. Under Alternative 1, a new vehicular bridge would be constructed only 60 feet upstream. Thus, the proposed new use under this alternative would require a substantial change to the spatial relationship of the historic property to its immediate environment or setting.¹ Therefore, Alternative 1 does not comply with Standard 1.

The immediate setting of the Edwards Crossing Bridge is composed of the South Yuba River flowing at the base of a granitic canyon. The broader setting generally consists of undeveloped forested land. "National Register Bulletin #15" states that "setting will be important...for those properties whose design is a reflection of their immediate environment (such as designed landscapes and bridges)."² In the case of the Edwards Crossing Bridge, the setting reflects why the historic property was originally constructed, namely, to span a physical obstacle in order to facilitate transportation from one side of the river to the other. It reflects the bridge's significance under Criterion A because the river and canyon serve to illustrate the bridge's function as a river crossing. The setting also reflects the bridge's significance under Criterion C, since the bridge is reflective of the physical obstacle it was designed to span. The immediate setting as well as the bridge's spatial relationship to this setting are therefore distinctive and character defining. Additionally, the immediate setting has not substantially changed since the historic property was constructed in 1904. Changes to the broad setting include the construction and demolition of buildings, such as a hotel that used to be located to the east of the south approach that has since been demolished, the addition of above-ground utilities, as well as road improvements such as asphalt pavement, signage, and safety guardrails.

The character of the landscape in which the Edwards Crossing Bridge played its historic role and the spatial relationship of the historic bridge to this setting would be altered by the addition of a new box girder bridge approximately 60 feet upstream. The introduction of another man-made feature in close proximity to the historic property would affect the scenic qualities of the natural landscape, and as noted above, this natural setting, specifically the river and canyon, directly relate to the historic property's original use. It would alter the spatial relationship between the bridge and the natural landscape by disrupting the open space immediately to the east that is defined by the slopes of the canyon below and characterized by the granite rock formations lining the canyon's north and south sides. Additionally, the new bridge would obscure views of the historic property from vantages located to the east looking west, diminishing the historic property's prominence in the area.

The addition of new bollards would not substantially change the immediate setting. The new bollards would be added at the south approach, which has already been altered by new road improvements over

¹ Setting is defined in "National Register Bulletin #15" as the physical environment of a historic property. It reflects to the character of the place in which the historical resource is situated as well as the resource's broader surroundings. "National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation," National Park Service, Cultural Resources, eds. Patrick Andrus and Rebecca Shrimpton, accessed August 21, 2019, 45.

² "National Register Bulletin #15," 48.

time such as the installation of asphalt paving, guardrails, and traffic signs. The south approach therefore is not a character-defining feature of the historic property.

Standard 2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.

The historic character of the Edwards Crossing Bridge itself would generally be retained and preserved. The existing character-defining features would remain and select features would be repaired in order to facilitate the bridge's continued use. The historic character of the immediate setting would be changed however by the construction of a new bridge 60 feet upstream. As discussed under Standard 1, the new bridge would alter the scenic, natural setting that is a character-defining feature of the Edwards Crossing Bridge. Therefore, Alternative 1 does not comply with Standard 2.

The installation of new bollards would have little to no potential to diminish the historic character of the existing bridge or its surrounding environment. Small-scale streetscape features within the public right-of-way have been continually removed and replaced over time without negatively affecting the ability of the historic property to convey its significance.

Standard 3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.

The new bollards as well as the new bridge would be adequately differentiated as new by their design, modern assembly, hardware, and overall appearance. They do not create a false sense of historical development nor do they appear to be conjectural features. Therefore, they would be distinguishable as non-original upon close inspection. Alternative 1 complies with Standard 3.

Standard 4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.

None of the changes to the Edwards Crossing Bridge since the end of the period of significance have acquired historic significance in their own right. Therefore, Standard 4 does not apply to the Project.

Standard 5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.

Distinctive materials, features and finishes that characterize the historic property include steel members, lattice railing, wood decking, concrete abutments, and stone retaining walls, all of which would be preserved. Distinctive construction techniques that characterize the property include pin-connected trusses, which would also be preserved. Alternative 1 complies with Standard 5.

Standard 6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

Deteriorated historic features include the structural steel members of the existing bridge, lattice railing, wood decking, and concrete footings, which would all be repaired rather than replaced. The steel members would be cleaned and repainted. The lattice railing would be repaired and repainted. The wood decking would be repaired as necessary and the footings would be reinforced with new rock anchors. Therefore, Alternative 1 complies with Standard 6.

Standard 7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

Historically painted steel members of the existing bridge would be repainted as part of the Project, and existing paint would be removed using the gentlest means possible. Treatments that cause damage to the historical materials would not be used; therefore, Alternative 1 complies with Standard 7.

Standard 8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

The location and potential impact to archaeological resources within the APE is discussed in a separate Archeological Survey Report (ASR). Generally, if archaeological resources are found during the construction of the Project, work would be halted, and the resources would be handled according to the procedures set forth in the Caltrans Section 106 PA and Caltrans SER.

Standard 9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

As discussed under Standards 1 and 2, related new construction includes a new bridge located 60 feet upstream that would adversely affect the setting and spatial relationships that characterize the immediate environment of the historic property. Additionally, the new bridge would obscure views of the historic property from vantages located to the east looking west, diminishing the historic property's prominence in the area.

While the new bridge would be differentiated by its modern design and assembly, it is not compatible with the features, size and scale of the historic property and therefore, Alternative 1 does not comply with Standard 9. "Preservation Brief #14: New Exterior Additions to Historic Buildings" notes that a compatible addition "should take its design cues from, but not copy, the historic building."³ The features of the new bridge do not reflect the architectural expression of the historic bridge type. The historic bridge is an arched bridge type, while the new bridge is a simple beam. The fracture fin along the east and west sides of the new bridge is differentiated and distinguishable, but also not harmonious with the simple forms of the historic bridge's steel members. Finally, the size and scale of the new bridge at approximately 26 feet wide is twice the size of the historic bridge at approximately 11 feet wide; however, the new bridge is still small in scale in comparison to current FHWA design standards for the construction of new bridges.

The proposed new bollards are compatible with the historic property. They are modest in massing, size, and scale as well as differentiated from the old by its modern design and assembly.

Standard 10. New additions and adjacent or related new construction will be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

The new bollards are freestanding features that would be located at the south approach to the bridge and therefore there is little to no potential for these features to impact the form and integrity of the historic property and its environment. The construction of the new bridge and approaches would require

³ Anne E. Grimmer and Kay D Weeks, "Preservation Brief #14: New Exterior Additions to Historic Buildings: Preservation Concerns," US Department of the Interior, National Park Service, Cultural Resources, August 2010.

excavation as well as clearing and leveling of the natural topography. However, if the new bridge were removed in the future, the essential form and integrity of the historic property and its immediate setting would be unimpaired overall. Therefore, Alternative 1 complies with Standard 10.

Example iv

Alternative 1 would change the use of the historic property from multi-modal to exclusively pedestrian; however, the existing features and materials of the Edwards Crossing Bridge would be preserved. Only select deteriorated features would be repaired or cleaned and repainted in order to facilitate the bridge's continued use.

Alternative 1 would add new physical features adjacent to the historic property that would change the historic character of the immediate setting, which contributes to the historic significance of the Edwards Crossing Bridge. The introduction of further man-made elements into this natural area would alter the setting's scenic qualities and historic landscape character. It would disrupt the spatial relationship between the historic property and surrounding canyon by adding a new feature where there is currently open space to the east of the existing bridge. The new bridge would also obscure views of the historic property from the surrounding area, diminishing the historic property's prominence in the area. Therefore, Alternative 1 would result in a change of physical features within the property's setting that contribute to its historic significance, which is an adverse effect [36 CFR 800.5(a)(2)(iv)].

Example v

Alternative 1 would introduce a new visual element that would diminish the integrity of the historic property's significant historic features, which is an adverse effect [36 CFR 800.5(a)(2)(v)]. As discussed under Example ii, the historic property's setting is reflective of the historic significance of the Edwards Crossing Bridge and therefore a significant historic feature of the historic property. The introduction of a new box girder bridge approximately 60 feet upstream would diminish the integrity of setting by altering the natural character of the landscape immediately surrounding the historic property.

Aside from temporary construction activities, Alternative 1 would not add new atmospheric or audible elements that would disrupt the quiet or peaceful setting of the historic property.

Conclusion for Build Alternative 1: Adverse Effect

"National Register Bulletin #15" states that setting is an aspect of integrity that is important to conveying the historic significance of bridges because "environment is a strong factor in the design of this property type."⁴ As noted under Examples ii, iv, and v, Alternative 1 would alter this characteristic of the historic property, namely the character of the surrounding natural landscape, in a manner that would diminish the integrity of the property's immediate setting. Furthermore, these changes to the immediate setting would diminish the integrity of the property's feeling and association. Namely, it would diminish the property's ability to convey the feeling of an early 1900s river crossing in a natural setting, and thereby also diminish the property's ability to convey its significant historic association under Criterion A. Alternative 1 would likely have little to no potential to diminish the historic property's integrity of location, design, materials, or workmanship.

U.S. Code 36 CFR 800.5 only classifies impacts to a historic property as either an adverse effect or not an adverse effect. Meaning, it does not define a scale of magnitude or make a distinction between a negligible, minor, moderate, or major adverse effect on a historic property. Therefore, although Alternative 1 may not diminish the overall integrity of the historic property to the degree it would no

⁴ "National Register Bulletin #15," 48.

longer be eligible for listing in the NRHP, it would diminish the property's integrity of immediate setting and thus would result in an adverse effect which is considered a Significant Impact under CEQA.

Build Alternative 2: New Bridge 1,000 Feet Upstream

Build Alternative 2 would include the rehabilitation of the existing Edwards Crossing Bridge exclusively for pedestrian use and the construction of a new bridge 1,000 feet upstream. It has the potential to affect the Edwards Crossing Bridge under the following examples of adverse effect: ii, iv, and v.

Example ii

Alternative 2 would alter existing features of the Edward's Crossing Bridge [36 CFR 800.5(a)(2)(ii)]. However, the proposed scope of work would generally be consistent with the Secretary's Standards for the Treatment of Historic Properties (36 CFR part 68), the most applicable treatment of which would be the Standards for Rehabilitation. The following is an analysis of the proposed Alternative 2 for compliance with the Rehabilitation Standards.

Standard 1. A property will be used as it was historically or be placed in a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.

The use of the Edwards Crossing Bridge would change from multi-modal to exclusively pedestrian. The proposed new use complies with Standard 1 because it would require minimal change to the defining characteristics of the historic property and its environment. Character-defining features and materials would be preserved overall. Select features would be maintained or repaired in order to facilitate the bridge's continued use, including the strengthening, repair, and repainting of steel members and lattice railing. The existing wood decking would also be repaired as necessary. New rock anchors would be installed at existing concrete footings. However, converting the existing vehicular bridge to a pedestrian bridge necessitates construction of a new vehicular bridge. Under Alternative 2, a new vehicular bridge would be constructed 1,000 feet upstream. Thus, the proposed new use under this alternative would introduce new visual elements to the historical property's environment or setting, including the new, upstream concrete-arch bridge and new bollards at the south approach of the existing bridge.

The proposed bollards would be modest in size and scale. They would also be installed within the public right-of-way at the south approach, which has already been altered by road improvements over time.

The new bridge would introduce a new visual feature to the east of the historic property; however, its location 1,000 feet upstream creates a geographic and visual separation thereby divorcing the new bridge from the immediate setting of the historic property. The introduction of a man-made feature far removed from the historic property would therefore have little to no potential to affect the scenic qualities of the natural landscape immediately surrounding the existing bridge. It would not alter the spatial relationships between the bridge and the natural landscape by disrupting the open space immediately to the east that is defined by the slopes of the canyon below and characterized by the granite rock formations lining the canyon's north and south sides. The Edwards Crossing Bridge would continue to be highly visible from surrounding vantages and remain a prominent feature in the area. Therefore, Alternative 2 complies with Standard 1.

Furthermore, as noted in Section 5.3.1, the broader setting of the historic property has changed over time, namely man-made features such as buildings have been constructed and demolished since the historic bridge's construction. Visual elements in the broader setting have therefore been continually introduced and removed over time without negatively affecting the ability of the historic property to convey its significance.

Standard 2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.

The historic character of the Edwards Crossing Bridge would be retained and preserved. The existing character-defining features would remain and select features would be repaired in order to facilitate the bridge's continued use. New features would be introduced to the historical property's broader setting. Small streetscape features such as the new bollards have little to no potential to diminish the historic character of the existing bridge or its surrounding environment. The new bridge would also not diminish the historic character nor the spatial relationships that characterize the immediate setting because it would be geographically and visually separated from the Edwards Crossing Bridge. Furthermore, the historic character of the broader setting has changed over time without negatively affecting the ability of the historic property to convey its significance. Alternative 2 therefore complies with Standard 2.

Standard 3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.

The new bollards as well as the new bridge would be adequately differentiated as new by their design, modern assembly, hardware, and overall appearance. They do not create a false sense of historical development nor do they appear to be conjectural features. Therefore, they would be distinguishable as non-original upon close inspection. Alternative 2 complies with Standard 3.

Standard 4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.

None of the changes to the Edwards Crossing Bridge since the end of the period of significance have acquired historic significance in their own right. Therefore, Standard 4 does not apply to the Project.

Standard 5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.

Distinctive materials, features and finishes that characterize the historic property include steel members, lattice railing, wood decking, concrete abutments, and stone retaining walls, all of which would be preserved. Distinctive construction techniques that characterize the property include pin-connected trusses, which would also be preserved. Alternative 2 complies with Standard 5.

Standard 6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

Deteriorated historic features include the structural steel members of the existing bridge, lattice railing, wood decking, and concrete footings, which would all be repaired rather than replaced. The steel members would be cleaned and repainted. The lattice railing repaired and repainted. The wood decking would be repaired as necessary and the footings would be reinforced with new rock anchors. Alternative 2 complies with Standard 6.

Standard 7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

Historically painted steel members of the existing bridge would be repainted as part of the Project, and existing paint would be removed using the gentlest means possible. Treatments that cause damage to the historical materials would not be used; therefore, Alternative 2 complies with Standard 7.

Standard 8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

The location and potential impact to archaeological resources within the APE is discussed in a separate Archeological Survey Report (ASR). Generally, if archaeological resources are found during the construction of the Project, work would be halted, and the resources would be handled according to the procedures set forth in the Caltrans Section 106 PA and Caltrans SER.

Standard 9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

As discussed under Standards 1 and 2, new features would not destroy historic materials or features of the existing bridge nor would they destroy the spatial relationships that characterize the immediate setting. The new work would be adequately differentiated from the old by their modern assembly as well as be compatible in design. The new bridge reflects the design of the historic in its incorporation of an open-spandrel segmental arch. The new bridge also reflects the historic materials of the existing bridge's in its use of concrete. The design of the new bridge is neither a copy of the historic bridge nor does it stand in stark contrast to it.

The new bollards are compatible with the historic property. They are modest in massing, size, and scale as well as differentiated from the old by its modern design and assembly. Alternative 2, therefore, complies with Standard 9.

Standard 10. New additions and adjacent or related new construction will be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

The new bollards are freestanding features that would be located at the south approach to the bridge and therefore there is little to no potential for these features to impact the form and integrity of the historic property and its environment. The construction of the new bridge and approaches would require excavation as well as clearing and leveling of the natural topography. However, because of the geographic and visual separation between the new bridge and the historic property, if the new bridge were removed in the future, the essential form and integrity of the historic property and its immediate environment would be unimpaired. Therefore, Alternative 2 complies with Standard 10.

Example iv

Alternative 2 would change the use of the historic property from multi-modal to exclusively pedestrian; however, the existing features and materials of the Edwards Crossing Bridge would be preserved. Only select deteriorated features would be repaired in order to facilitate the bridge's continued use.

Alternative 2 would add new physical features in the general vicinity of the historic property; however, these new features would not change the historic character of the immediate setting, which contributes to the historic significance of the Edwards Crossing Bridge. Because of the geographic and visual separation between the historic property and the new bridge, the immediate setting's scenic qualities and historic landscape character would remain. The new bridge would not disrupt the relationship between

the historic property and surrounding canyon due to its distance. The new bridge would not obscure views of the historic property from the surrounding area, and the historic property would continue to remain a prominent feature in the area.

Example v

Alternative 2 would introduce new visual elements, including new bollards at the south approach and a new bridge 1,000 feet upstream. Small streetscape features within the public right-of-way, such as the new bollards, have little to no potential to diminish the historic character of the existing bridge or its surrounding environment. Because of the geographic and visual separation, the introduction of a new bridge would not diminish the integrity of setting by altering the natural character of the landscape immediately surrounding the historic property.

Conclusion for Build Alternative 2: No Adverse Effect

Alternative 2 would not alter any of the characteristics of the historic property that qualify it for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. With the application of the Rehabilitation Standards, Alternative 2 would not cause an adverse effect on the historic property.

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

In an effort to identify archaeological resources that might be affected by the undertaking, a pedestrian survey, background research, and consultation with Native American tribes were conducted. A record search conducted at the NCIC indicated that there were two previously recorded resources within the APE: the Edwards Crossing Bridge (P-29-0814); and North Bloomfield-Graniteville Road (P-29-2436). The archaeological field investigations did not identify any prehistoric archaeological resources but did identify five previously unrecorded dry-stack retaining walls as well as the Category 1 Edwards Crossing Bridge (17C-0006) and North Bloomfield-Graniteville Road.

A review of the geologic formations, occurrences of bedrock located in the area, erosional environment of the area, and the steepness of the slopes, indicate that the APE has a low potential for intact prehistoric archaeological resources and a moderate potential for historic-era archaeological resources due to the presence of known historical resources that are or were in the general area. The vertical APE within the bridge replacement area should not exceed 20 feet from the existing ground surface, while the associated roadwork should not exceed 5 feet below ground surface. The vicinity around the APE has a low potential for archaeological resources and the APE has been highly disturbed by construction and continued maintenance of the bridge, roadway, parking lot, and trail facilities.

At this time, no further archaeological study is required unless project plans change to include areas not previously included in the project APE or if additional information is received from other sources or special interest groups. Additional archaeological surveys will be necessary if project limits are expanded to include areas outside the current APE limits. In addition, Mitigation Measures **CR-1** through **CR-3** would be implemented to reduce impacts to less than significant levels. Impacts related to both Alternative 1 and 2 would be **Less than Significant with Mitigation**. The No-Build alternative would result in **No Impact**.

IMPACT CUL-3: Potential to disturb any human remains, including those interred outside of dedicated cemeteries?

With any project requiring ground disturbance, there is always the possibility that unmarked burials may be unearthed during construction. This impact is considered potentially significant. Implementation of

Mitigation Measure **CR-3** would reduce this impact to a less-than significant level. Impacts related to both Alternative 1 and 2 would be **Less than Significant with Mitigation**. The No-Build alternative would result in **No Impact**.

Alternatives Summary

Alternative 1 New Bridge approximately 60 feet upstream

“National Register Bulletin #15” states that setting is an aspect of integrity that is important to conveying the historic significance of bridges because “environment is a strong factor in the design of this property type.”⁵ As noted under Examples ii, iv, and v, Alternative 1 would alter this characteristic of the historic property, namely the character of the surrounding natural landscape, in a manner that would diminish the integrity of the property’s immediate setting. Furthermore, these changes to the immediate setting would diminish the integrity of the property’s feeling and association. Namely, it would diminish the property’s ability to convey the feeling of an early 1900s river crossing in a natural setting, and thereby also diminish the property’s ability to convey its significant historic association under Criterion A. Alternative 1 would likely have little to no potential to diminish the historic property’s integrity of location, design, materials, or workmanship.

U.S. Code 36 CFR 800.5 only classifies impacts to a historic property as either an adverse effect or not an adverse effect. Meaning, it does not define a scale of magnitude or make a distinction between a negligible, minor, moderate, or major adverse effect on a historic property. Therefore, although Alternative 1 may not diminish the overall integrity of the historic property to the degree it would no longer be eligible for listing in the NRHP, it would diminish the property’s integrity of immediate setting and thus would result in an adverse effect which is considered a Significant Impact under CEQA.

Alternative 2 New Bridge approximately 1,000 feet upstream

Alternative 2 would not alter any of the characteristics of the historic property that qualify it for inclusion in the NRHP in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association. With the application of the Rehabilitation Standards, Alternative 2 would not cause an adverse effect on the historic property.

Alternative 3 No-Build

No mitigation measures would be implemented under this alternative since the project would not occur.

3.5.5 Avoidance, Minimization, and/or Mitigation Measures

The minimization and mitigation measures would be implemented to reduce impacts to a less than significant level for both build alternatives.

CR-1: Prior to and throughout construction, the County and Caltrans shall implement the *Memorandum of Agreement Between the California Department of Transportation and the California State Historic Preservation Officer Regarding the Edwards Crossing Bridge Replacement Project, Nevada County, California* to resolve potential adverse effects to the Edwards Crossing Bridge.

CR-2: Prior to and throughout construction, the County and Caltrans shall implement the Edwards Crossing Bridge Replacement Project Secretary of the Interior’s Standards Action Plan to avoid adverse impacts to the Edwards Crossing Bridge.

⁵ “National Register Bulletin #15,” 48.

CR-3: An archaeologist meeting the Secretary of the Interior’s Professional Qualification Standards in Archaeology shall conduct archaeological monitoring during geotechnical and initial construction grading activities.

CR-4: In the event that buried archaeological materials are encountered during construction, the course of action followed will be that stated in Stipulation XV. Post Review Discoveries, Section B.1-3 of the PA. Should the archaeological discovery include Native American resources, the consulting Tribes shall be contacted, to assist in the significance assessment and treatment recommendations.

It is BLM’s policy to protect and preserve archaeological resources and historic properties. If inadvertent discoveries are unearthed during this undertaken on lands managed by the BLM, operations are to cease immediately and the BLM archaeologist is to be contacted. Following an evaluation, consultation (if needed), and protection measures (if needed) project work may proceed.

CR-5: If human remains are encountered, State Health and Safety Code Section 7050.5 dictates that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner will notify the NAHC, which will determine and notify a MLD. With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

Should inadvertent discovery of human remains and objects subject, or potentially subject, to Native American Graves Protection and Repatriation Act (NAGPRA) as defined in 43 CFR 10.2 (d), be located on land managed by the BLM, the discovery will be handled by the BLM under the Archaeological Resources Protection Act regulation at 43 Code of Federal Regulations (CFR) 7 and NAGPRA regulations at 43 CFR 10 as well as related BLM policy.

3.6 ENERGY

3.6.1 Regulatory Setting

Federal Laws and Requirements

NEPA (42 United States Code [USC] Part 4332) requires the identification of all potentially significant impacts to the environment, including energy impacts.

State Laws and Requirements

CEQA Guidelines section 15126.2(b) and Appendix F, Energy Conservation, require an analysis of a project's energy use to determine if the project may result in significant environmental effects due to wasteful, inefficient, or unnecessary use of energy, or wasteful use of energy resources.

Local Laws and Requirements

Nevada County General Plan

The Nevada County General Plan, Chapter 8 – Housing Element Update, discusses energy resources and the conservation and use of energy resources within Nevada County. The General Plan establishes guidelines in the form of policies, implementation programs, funding, physical improvement and capital projects, development review, ongoing planning efforts, and public outreach and education in order to achieve the general plan goals for efficient use of energy resources within Nevada County. The following is an applicable goal to Energy:

- Goal EC-8.2, *To the extent feasible, encourage the reduction of Greenhouse Gas emissions during the design phase of construction projects.*

Nevada County Energy Action Plan

The Nevada County Energy Action Plan (EAP) provides an analysis of the energy use within the unincorporated county limits by the community and County operated facilities as well as a roadmap for accelerating energy efficiency, water efficiency, and renewable energy efforts in already underway in Nevada County. It is designed to assist the County in implementing the energy and water-energy related goals and policies in the County's General Plan and Housing Element and inform the community of cost-effective programs and best practices that will help them save energy and money.

3.6.2 Environmental Setting and Existing Conditions

The project area is designated as Open Space within the Nevada County General Plan and is located on Bureau of Land Management recreational land.

Energy consumption can be measured in direct and indirect energy use. Direct energy use is the energy consumed in the actual propulsion of a vehicle using the facility. It can be measured in terms of the thermal value of the fuel [usually measured in British thermal units (BTUs) or Joules], the costs of the fuel, or the quantity of electricity used in the engine or motor. Indirect energy is defined as all the remaining energy consumed to run a transportation system, including construction energy, maintenance energy, and any substantial impacts to energy consumption related to project induced land use changes and mode shifts, and any substantial changes in energy associated with vehicle operation, manufacturing or maintenance due to increased automobile use.

Direct Energy Consumption

Most existing energy consumption is traffic related. More cars on the road could result in higher traffic which requires vehicles to stop. These stop-and go traffic conditions decrease fuel efficiency, thus increasing fuel consumption. As vehicles require more fuel, there is an increase in fuel shipments (via tanker trucks) on existing roadways to the many gas stations along the corridor. Traffic within the project area is minimal, as it is located in a rural area. So direct energy consumption is not as high as in an urban area. Most of the energy consumption would derive from recreational users driving to the bridge to utilize the recreational trails in the area.

Indirect Energy Consumption

The indirect consumption of energy for transportation system materials and processes competes with other important energy needs. One such energy use includes maintenance. Pavement grinding operations, for example, include the use of water to grind existing pavement, which is then exported to an approved facility, such as a slurry pit, so the grindings can then be properly disposed of. Heavy equipment is needed to perform this work, as well as setting up lane closures and detours, which can negatively affect traffic conditions.

3.6.3 Thresholds of Significance

Would the Project:

- a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?
- b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

3.6.4 Environmental Impacts

IMPACT EN-1: Potential to result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?

Direct Energy (Construction)

Proposed project construction would primarily consume diesel and gasoline through operation of heavy-duty construction equipment, material deliveries, and debris hauling. Fuel consumption was calculated by inputting emissions results from the SMAQMD Roadway Construction Emissions Model into the U.S. EPA Greenhouse Gas Equivalencies Calculator (<https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>). Fuel consumption was then converted into British thermal units (BTU) to express energy consumption using BTU conversion rates provided by the US Energy Information Administration (US EIA, May 2021). Table 7 below shows the estimated annual fuel/energy consumption needed to construct the proposed project.

Table 7. Annual Construction Fuel and Energy Consumption

Construction Years	Alternative	Annual Fuel Consumption			
		Diesel		Gasoline	
		Gallons	BTUs	Gallons	BTUs
2026/27	Alternative 1	128,626	1.76E+10	147,340	1.77E+10
	Alternative 2	191,231	2.62E+10	219,054	2.63E+10

As indicated in Table 7, energy use associated with proposed project construction is estimated to result in the short-term consumption of 128,626 gallons from diesel-powered equipment or 147,340 gallons from gasoline-powered equipment for Alternative 1. Alternative 2 is estimated to result in the short-term consumption of 191,231 gallons from diesel-powered equipment or 219,054 gallons from gasoline-powered equipment. A precise breakdown of the combination in gallons of diesel and gasoline as a result of each alternative is not known at this time. This represents a small demand on local and regional fuel supplies that would be easily accommodated, and this demand would cease once construction is complete. Moreover, construction-related energy consumption would be temporary and not a permanent new source of energy demand, and demand for fuel would have no noticeable effect on peak or baseline demands for energy. While construction would result in a short-term increase in energy use, construction design features would help conserve energy. For example, recycled materials will be used where feasible. Recycled products typically have lower manufacturing and transport energy costs since they do not utilize raw materials, which must be mined and transported to a processing facility. In addition, California regulation (13 CCR 2449[d][3], 2485) will limit idling of diesel-powered equipment. Since the cost of fuel is high, contractors are incentivized to be as energy efficient as possible. Therefore, the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources during short-term construction operations. Impacts related to both Alternative 1 and 2 would be **Less than Significant**. The No-Build alternative would result in **No Impact**.

IMPACT EN-2: Potential to conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

The project has been designed to be constructed and operated in the most energy efficient processes practicable. Additionally, the project would remain consistent with the County's Housing Element Update. The project would not conflict with or obstruct any state or local plans for renewable energy or energy efficiency. Therefore, Alternative 1 and 2 would result in **No Impact**. The No-Build alternative would also result in **No Impact**.

Alternatives Summary

Alternative 1 New Bridge approximately 60 feet upstream

Mitigation measures are not necessary and Alternative 1 would have a less than significant impact on energy resources.

Alternative 2 New Bridge approximately 1,000 feet upstream

Mitigation measures are not necessary and Alternative 2 would have a less than significant impact on energy resources.

Alternative 3 No-Build

This alternative would not build a replacement bridge upstream from the existing, structurally deficient bridge. No mitigation measures would be implemented.

3.6.5 Avoidance, Minimization, and/or Mitigation Measures

The project would have Less than Significant Impact on energy resources and would not conflict with state or local renewable energy or energy efficiency plans and, therefore, would not require any mitigation measures.

3.7 GEOLOGY/SOILS

3.7.1 Regulatory Setting

Federal Laws and Requirements

Clean Water Act Section 402/National Pollutant Discharge Elimination System

The 1972 amendments to the federal CWA established the NPDES permit program to control discharges of pollutants from point-source discharges (discharges originating from one known source of pollutants including storm drains and pipes) and nonpoint-sources (runoff or precipitation). NPDES is the primary federal program that regulates point-source and nonpoint-source discharges to waters of the United States.

The 1987 amendments to the CWA created a new section of the CWA devoted to stormwater permitting (Section 402), which is directly relevant to excavation and soil erosion. Section 402 mandates that certain types of construction activity comply with the requirements of the U.S. EPA's NPDES program. The U.S. EPA has granted the State of California primacy in administering and enforcing the provisions of the CWA and NPDES within the borders of the state. NPDES permits are issued by one of the nine RWQCBs. Construction activity disturbing 1 acre or more must obtain coverage under the state's General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (see *Construction Activities Storm Water Construction General Permit*, below).

U.S. Geological Survey National Landslide Hazard Program

To fulfill the requirements of Public Law 106-113, USGS created the National Landslide Hazards Program to reduce long-term losses from landslide hazards by improving understanding of the causes of ground failure and suggesting mitigation strategies. The Federal Emergency Management Agency (FEMA) is the responsible agency for the long-term management of natural hazards.

State Laws and Requirements

Alquist-Priolo Earthquake Fault Zoning Act

California's Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act) (PRC 2621 et seq.), originally enacted in 1972 as the Alquist-Priolo Special Studies Zones Act and renamed in 1994, is intended to reduce the risk to life and property from surface fault rupture during earthquakes. The Alquist-Priolo Act prohibits the location of most types of structures intended for human occupancy across the traces of active faults and strictly regulates construction in the corridors along active faults (Earthquake Fault Zones). It also defines criteria for identifying active faults, giving legal weight to terms such as active, and establishes a process for reviewing building proposals in and adjacent to Earthquake Fault Zones.

Under the Alquist-Priolo Act, faults are zoned and construction along or across them is strictly regulated if they are sufficiently active and well defined. A fault is considered sufficiently active if one or more of its segments or strands show evidence of surface displacement during the Holocene time (defined for purposes of the Alquist-Priolo Act as referring to approximately the last 11,000 years). A fault is considered well defined if its trace can be clearly identified by a trained geologist at the ground surface or in the shallow subsurface, using standard professional techniques, criteria, and judgment (Bryant and Hart 2007).

Seismic Hazards Mapping Act

Like the Alquist-Priolo Act, the Seismic Hazards Mapping Act of 1990 (PRC § 2690–2699.6) is intended to reduce damage resulting from earthquakes. While the Alquist-Priolo Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, including strong ground shaking, liquefaction, and seismically induced landslides. Its provisions are similar in concept to those of the Alquist-Priolo Act; the State is charged with identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides, and other corollary hazards, and cities and counties are required to regulate development within mapped Seismic Hazard Zones.

Under the Seismic Hazards Mapping Act, permit review is the primary mechanism for local regulation of development. Specifically, cities and counties are prohibited from issuing development permits for sites in Seismic Hazard Zones until appropriate site-specific geologic or geotechnical investigations have been carried out, and measures to reduce potential damage have been incorporated into the development plans. Geotechnical investigations conducted within Seismic Hazard Zones must incorporate standards specified by California Geological Survey Special Publication 117a, Guidelines for Evaluating and Mitigating Seismic Hazards (California Geological Survey 2008).

Construction Activities Storm Water Construction General Permit (Order No. 2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-006-DWQ)

The General NPDES Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order 2009-0009-DWQ, NPDES No. CAS000002) (Construction General Permit) regulates stormwater discharges for construction activities under CWA Section 402.

Dischargers whose projects disturb 1 or more acres of soil, or whose projects disturb less than 1 acre but are part of a larger common plan of development that in total disturbs 1 or more acres, are required to obtain coverage under the Construction General Permit. Construction activity subject to this permit includes clearing, grading, and disturbances to the ground such as stockpiling or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility.

The Construction General Permit requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP must list BMPs that the discharger will use to protect stormwater runoff and document the placement and maintenance of those BMPs. Additionally, the SWPPP must contain a visual monitoring program; a chemical monitoring program for “non-visible” pollutants, to be implemented in case of a BMP failure; and a monitoring plan for turbidity and pH for projects that meet defined risk criteria. The requirements of the SWPPP are based on the construction design specifications detailed in the final design plans of a project and the hydrology and geology of the site expected to be encountered during construction. The local or lead agency requires proof of coverage under the Construction General Permit prior to building permit issuance. The Central Valley RWQCB administers the NPDES stormwater permit program in Nevada County. The project would involve more than 1 acre of land disturbance, and therefore a Construction General Permit would be required.

Municipal Separate Storm Sewer System Program

The U.S. EPA defines a Municipal Separate Storm Sewer System (MS4) as any conveyance or system of conveyances (roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels, and storm drains) owned or operated by a state, city, town, county, or other public body having jurisdiction over stormwater, that is designed or used for collecting or conveying stormwater. As part of the NPDES program, the U.S. EPA initiated a program requiring that entities having MS4s apply to their local RWQCB for stormwater discharge permits. The program proceeded through two phases. Under Phase I, the program initiated permit requirements for designated municipalities with

populations of 100,000 or more to obtain NPDES permit coverage for their stormwater discharges. Phase II expanded the program to municipalities with populations less than 100,000 as well as small MS4s outside the urbanized areas that are designated by the permitting authority to obtain NPDES permit coverage for their stormwater discharges.

Generally, Phase I MS4s are covered by individual permits and Phase II MS4s are covered by a general permit. Nevada County is a Phase II Small MS4 Traditional Renewal Permittee under MS4 Order No. 2013-0001-DWQ. The Phase II General Permit requires that cities and counties develop and implement programs and measures, such as a Construction Site Storm Water Runoff Control Program and a Post Construction Storm Water Management Program, to reduce the discharge of pollutants in stormwater discharges to the maximum extent possible. These programs and measures include implementation of BMPs, control techniques, system design and engineering methods, and other measures as appropriate. As part of permit compliance, these permit holders have created stormwater management plans (SWMPs) for their respective locations. These plans outline the requirements for municipal operations, industrial and commercial businesses, construction sites, and planning and land development. These requirements may include multiple measures to control pollutants in stormwater discharge. During implementation of specific projects under the program, project applicants will be required to follow the guidance contained in the SWMPs as defined by the permit holder in that location.

Caltrans holds a General NPDES Permit that covers statewide Caltrans municipal stormwater discharges, however, the proposed project will primarily comply with the Nevada County MS4 Permit.

Local Laws and Requirements

Nevada County General Plan

The Nevada County General Plan – Chapter 12: Soils Element, contains goals, objectives, and policies related to geologic hazards and seismic activity. The following goals are applicable to Geology and Soils:

- Goal 12.1, *Minimize adverse impacts of grading activities, loss of soils and soil productivity.*
 - Objective 12.1, *Minimize earth movement and disturbance.*
 - Objective 12.2, *Minimize erosion due to road construction and maintenance.*
 - Objective 12.3, *Minimize vegetation removal.*

Nevada County Land Use and Development Code

Section L-II 4.3.8 – Earthquake Faults & Seismically Sensitive Areas

The Nevada County Land Use and Development Code, Section L-II 4.3.8, minimizes the impact of earthquakes and seismic hazards on people and development by requiring all projects in a seismic hazard area to have a management plan prepared by a certified engineering geologist or civil engineer that minimizes safety impacts associated with the project.

Section L-II 4.3.13 – Steep Slopes/High Erosion Potential

The Nevada County Land Use and Development Code, Chapter II, Article, 4.0, Section L-II 4.3.13, includes standards to preserve the natural, topographic, and aesthetic characteristics of steep slopes. Standards are also included to minimize soil erosion, water quality impacts, earth movement and disturbance, and the adverse impact of grading activities, while providing for reasonable use of private property. The standards include requirements for grading permits, limited development on steep slopes, and an erosion and sediment control plan.

Chapter V, Article 19 – Grading

The Nevada County Land Use and Development Code, Chapter V, Article 19, sets forth rules and regulations to control excavation, grading and earthwork construction, including fills and embankments; establishes standards of required performance in preventing or minimizing water quality impacts from storm water runoff; establishes the administrative procedure for issuance of permits; and provides for approval of plans and inspection of grading construction, drainage, and erosion and sediment controls at construction sites.

3.7.2 Environmental Setting and Existing Conditions

Nevada County is part of the Sierra Nevada Range, a geologic block approximately 400 miles long and 80 miles wide which extends in a north-south band along the eastern portion of California. The geologic substructure of the county can be divided into three very broad groups, which are reflected in the surface soils. The project is within the Western Foothills area. This area, extending from the Yuba County border to just northeast of the Grass Valley/Nevada City area, is generally comprised of metavolcanic and granitic formations (Nevada County General Plan, Chapter 12: Soils).

The land north of the South Fork Yuba River consists of rock land. South of the South Fork Yuba River, the land consists of Cohasset cobbly loam, 30 to 50 percent slopes. This soil type is well drained and is common of hills and mountains.

3.7.3 Thresholds of Significance

Would the Project:

- a) *Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:*
 - i) *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*
 - ii) *Strong seismic ground shaking?*
 - iii) *Seismic-related ground failure, including liquefaction?*
 - iv) *Landslides?*
- b) *Result in substantial soil erosion or the loss of topsoil?*
- c) *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?*
- d) *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?*
- 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?*
- f) *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

3.7.4 Environmental Impacts

IMPACT GEO-1: Potential to 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; (ii) Strong seismic ground shaking; (iii) Seismic-related ground failure, including liquefaction; (iv) Landslides?

The project would not expose people or structures to potential substantial adverse effects, including risk of loss, injury, or death involving rupture of a known fault, strong seismic ground shaking, seismic-related ground failure, or landslides. The project is not located within an Alquist-Priolo Earthquake Fault Zone. There are no faults in or in close proximity to the project area and the nearest faults to the east are Pre-Quaternary Faults, which are older than 1.6 million years or faults without recognized Quaternary displacement. Therefore, according to the California Department of Conservation (CDC), there is very low risk of rupture, ground shaking, and seismic-related ground failure. Therefore, Alternative 1 and 2 would result in **No Impact**. The No-Build alternative would also result in **No Impact**.

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

The proposed project would require ground disturbing activities along the banks of the South Yuba River during construction of the new bridge. In order to reduce the potential for erosion, the proposed project will be designed with erosion control measures including use of rock slope protection. Furthermore, erosion control practices would be required of the project as part of the SWPPP identified under 2.10 Hydrology and Water Quality measure **WQ-4**. With inclusions of these design features, and adherence to SWPPP requirements, impacts related to both Alternative 1 and 2 would be **Less than Significant with Mitigation**. The No-Build alternative would result in **No Impact**.

IMPACT GEO-3: Potential to 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?

Soil material in the project area is predominantly Cohasset cobbly loam and rock land. A less than significant impact to stability may temporarily occur during construction, but the risk of landslide, lateral spreading, subsidence, liquefaction, or collapse is low due to the nature of the terrain and the water profile. Impacts related to both Alternative 1 and 2 would be **Less than Significant**. The No-Build alternative would result in **No Impact**.

IMPACT GEO-4: Potential to 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?

Less than Significant Impact. Soils within the project area consist of Cohasset cobbly loam south of the river and rock land north of the river. These soil types are well drained and have a very high runoff class. Impacts related to both Alternative 1 and 2 would be **Less than Significant**. The No-Build alternative would result in **No Impact**.

IMPACT GEO-5: Potential to affect 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?

The project would not utilize septic tanks or an alternative waste water disposal system on the site. Therefore, the project would have no impact due to soils incapable of adequately supporting septic systems. Therefore, Alternative 1 and 2 would result in **No Impact**. The No-Build alternative would also result in **No Impact**.

IMPACT GEO-6: Potential to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Although the project is partially located within a Mineral Resource Zone, as shown in the County General Plan, there would not be an impact to a known mineral resource or paleontological resource. Additionally, the project would be considered exempt from requiring a mining permit, according to the Nevada County Land Use and Development Code. No findings of unique paleontological resources or sites or unique geological features were identified in the Nevada County General Plan EIR within the project area. Therefore, Alternative 1 and 2 would result in **No Impact**. The No-Build alternative would also result in **No Impact**.

Alternatives Summary

Alternative 1 New Bridge approximately 60 feet upstream

Geological and soil impacts are not anticipated to be significant as a result of the Alternative 1. Ground disturbing activities along the banks of the South Yuba River during construction of the new bridge will be similar for both alternatives. In order to reduce the potential for erosion, the proposed project will be designed with erosion control measures including use of rock slope protection. With the mitigation measure and standard erosion control practices below, impacts would be reduced to less than significant levels.

Alternative 2 New Bridge approximately 1,000 feet upstream

Geological and soil impacts are not anticipated to be significant as a result of the Alternative 2. A temporary access road will be required on the north side of the canyon and a temporary trestle across the river is planned to get materials and equipment across the river for construction of the arch foundation at Pier 3. This temporary access road has the potential for erosion. In addition, the foundation for the arches thrust block involves large excavation and it would require restoration around it. The temporary access road restoration will be left as a trail for walking/hiking purposes. In order to reduce the potential for erosion, the proposed project will be designed with erosion control measures including use of rock slope protection. With the mitigation measure and standard erosion control practices below, impacts would be reduced to less than significant levels.

Alternative 3 No-Build

This alternative would not build a replacement bridge upstream from the existing, structurally deficient bridge. No mitigation measures would be implemented.

3.7.5 Avoidance, Minimization, and/or Mitigation Measures

The project would have Less than Significant Impact with Mitigation to geology and soils due to the implementation of Hydrology/Water Quality measure **WQ-4** and the erosion control practices that will be required as part of the SWPPP.

WQ-4: The proposed project will require a NPDES General Construction Permit for Discharges of stormwater associated with construction activities. A SWPPP or WPCP will also be developed and implemented as part of the Construction General Permit.

3.8 GREENHOUSE GAS EMISSIONS

3.8.1 Regulatory Setting

State Laws and Requirements

While climate change has been a concern since at least 1988, as evidenced by the establishment of the United Nations and World Meteorological Organization's Intergovernmental Panel on Climate Change (IPCC), the efforts devoted to greenhouse gas (GHG) emissions reduction and climate change research and policy have increased dramatically in recent years. These efforts are primarily concerned with the emissions of GHG related to human activity that include CO₂, CH₄, NO_x, nitrous oxide, tetrafluoromethane, hexafluoroethane, sulfur hexafluoride, HFC-23 (fluoroform), HFC-134a (s, s, s, 2 –tetrafluoroethane), and HFC-152a (difluoroethane).

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order S-3-05. The goal of this Executive Order is to reduce California's GHG emissions to: 1) 2000 levels by 2010, 2) 1990 levels by the 2020 and 3) 80 percent below the 1990 levels by the year 2050. In 2006, this goal was further reinforced with the passage of Assembly Bill 32 (AB 32), the Global Warming Solutions Act of 2006. AB 32 sets the same overall GHG emissions reduction goals while further mandating that CARB create a plan, which includes market mechanisms, and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." Executive Order S-20-06 further directs state agencies to begin implementing AB 32, including the recommendations made by the state's Climate Action Team.

With Executive Order S-01-07, Governor Schwarzenegger set forth the low carbon fuel standard for California. Under this executive order, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by 2020.

Climate change and GHG reduction is also a concern at the federal level; however, at this time, no legislation or regulations have been enacted specifically addressing GHG emissions reductions and climate change. California, in conjunction with several environmental organizations and several other states, sued to force the U.S. EPA to regulate GHG as a pollutant under the Clean Air Act (*Massachusetts vs. [EPA] et al.*, 549 U.S. 497 (2007)). The court ruled that GHG does fit within the Clean Air Act's definition of a pollutant, and that the U.S. EPA does have the authority to regulate GHG. Despite the Supreme Court ruling, there are no promulgated federal regulations to date limiting GHG emissions. [1]

According to Recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate Change in CEQA Documents (March 5, 2007), an individual project does not generate enough GHG emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may participate in a potential impact through its incremental contribution combined with the contributions of all other sources of GHG. In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively considerable." See CEQA Guidelines sections 15064(i)(1) and 15130. To make this determination the incremental impacts of the Project must be compared with the effects of past, current, and probable future projects. To gather sufficient information on a global scale of all past, current, and future projects in order to make this determination is a difficult if not impossible task.

[1] <http://www.epa.gov/climatechange/endangerment.html>

Local Laws and Requirements

Nevada County General Plan

The Nevada County General Plan, Chapter 8 – Housing Element Update, discusses energy resources and the conservation and use of energy resources within Nevada County. The General Plan establishes guidelines in the form of policies, implementation programs, funding, physical improvement and capital projects, development review, ongoing planning efforts, and public outreach and education in order to achieve the general plan goals for efficient use of energy resources within Nevada County. The following is an applicable goal to Greenhouse Gas Emissions:

- Goal EC-8.2, *To the extent feasible, encourage the reduction of Greenhouse Gas emissions during the design phase of construction projects.*

Nevada County Energy Action Plan

The Nevada County Energy Action Plan provides an analysis of the energy use within the unincorporated county limits by the community and County operated facilities as well as a roadmap for accelerating energy efficiency, water efficiency, and renewable energy efforts already underway in Nevada County. It is designed to assist the County in implementing the energy and water-energy related goals and policies in the County's General Plan and Housing Element and inform the community of cost-effective programs and best practices that will help them save energy and money.

Northern Sierra Air Quality Management District

The project is under the jurisdiction of the NSAQMD which regulates air quality according to the standards established in the Clean Air Acts and amendments to those acts. The NSAQMD comprises three counties: Nevada, Plumas and Sierra County. NSAQMD is required by law to achieve and maintain the federal and state Ambient Air Quality Standards.

3.8.2 Environmental Setting and Existing Conditions

North Bloomfield-Graniteville Road is a rural road that travels over the South Yuba River on the Edwards Crossing Bridge. The road is paved south of the bridge and unpaved (dirt) on the north side. The project would build a new bridge over the South Yuba River that eliminates the one-lane bridge that currently causes vehicles to idle while waiting for other travelers to cross the bridge. The project does not make improvements to either side of the road and would not increase traffic on the road.

3.8.3 Thresholds of Significance

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*
- b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

3.8.4 Environmental Impacts

IMPACT GHG-1: Potential to generate substantial greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

GHG emissions for transportation projects can be divided into those produced during construction and those produced during operations. Construction GHG emissions include emissions produced as a result of material processing, emissions produced by on-site construction equipment, and emissions arising from

traffic delays due to construction. GHG emissions produced during operations are those that result from potentially increased traffic volumes or changes in automobile speeds.

Short-Term Construction Emissions

Short-term construction emissions from the project are anticipated. Emissions from construction equipment would include all equipment powered by gasoline and diesel engines. The RCEM model estimates construction equipment effects of criteria pollutants including CO, NO_x, VOCs, directly emitted PM₁₀ and PM_{2.5}, and toxic air contaminants (TACs) such as diesel exhaust particulate matter. These emissions would be temporary and limited to the immediate area surrounding the construction site. Neither the NSAQMD nor the County have adopted numerical thresholds of significance for GHG emissions that would apply to the project. The NSAQMD, however, recommends that all projects subject to CEQA review be considered in the context of GHG emission and climate change impacts, and that CEQA documents include a quantification of GHG emissions from all project sources, as well as minimize and mitigate GHG emissions as feasible. The Sacramento Metropolitan Air Quality Management District has a threshold of 1,100 MTCO_{2e} per year for the construction or operational phase of projects. This threshold will be used for GHG analysis.

The RCEM model was calculated with the project's construction anticipated to take approximately 12 months for Alternative 1 and 18 months for Alternative 2. It was determined that the total amount of emissions generated by construction of the project is 1,309 MTCO_{2e} for Alternative 1 and 1,947 MTCO_{2e} for Alternative 2 (Appendix B). With the assumption that the average construction season is 9 months, it is reasonable to divide the total emissions of the project. Accordingly, the project's short-term construction would result in a temporary increase of approximately 982 metric tons of GHG emissions during the first 9 months and approximately 327 metric tons of GHG during the remaining 3 months for Alternative 1. Similarly, Alternative 2 would result in approximately 974 metric tons of GHG emissions during the first 9 months and approximately 974 metric tons of GHG during the remaining 9 months. For both Alternative 1 and 2, the total GHG emissions per year are below the 1,100 MTCO_{2e} threshold.

Long-Term Operational Emissions

The project would not result in any operational increases in the number of automobiles in the traffic system; therefore, operational emissions are not anticipated. The project is being designed for safety and better access. As the project constructs a 20-foot-wide bridge, it will not widen N. Bloomfield Road, therefore, operational GHG emissions should remain the same. The completed project operation would have no impact relating to GHG emissions. Overall, GHG Impacts related to both Alternative 1 and 2 would be **Less than Significant**. The No-Build alternative would result in **No Impact**.

IMPACT GHG-2: Potential to conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emission. Therefore, Alternative 1 and 2 would result in **No Impact**. The No-Build alternative would also result in **No Impact**.

Alternatives Summary

Alternative 1 New Bridge approximately 60 feet upstream

Mitigation measures are not necessary, and each built alternative would have a less than significant impact on GHG emissions.

Alternative 2 New Bridge approximately 1,000 feet upstream

Mitigation measures are not necessary, and each built alternative would have a less than significant impact on GHG emissions.

Alternative 3 No-Build

This alternative would not build a replacement bridge upstream from the existing, structurally deficient bridge. No mitigation measures would be implemented.

3.8.5 Avoidance, Minimization, and/or Mitigation Measures

The project would have a **Less Than Significant Impact** on greenhouse gas emissions and would not conflict with any applicable plan, policy, or regulation adopted for the purpose of greenhouse gas emissions. No Avoidance, Minimization, and/or Mitigation Measures are required.

3.9 HAZARDS & HAZARDOUS MATERIALS

3.9.1 Regulatory Setting

Federal Laws and Requirements

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, is a federal act establishing a national trust for hazardous-waste-related industries to be able to fund and coordinate large cleanup activities for hazardous waste spills and accidents and to clean up older abandoned waste sites. Amended in 1986, the act establishes two primary actions: (1) to coordinate short-term removal of hazardous materials; and (2) to coordinate and manage the long-term removal of hazardous materials identified on the U.S. EPA's National Priorities List (NPL). The NPL is a record of known or threatened releases of hazardous substances, pollutants, or contaminants. A national database and management system, known as the Comprehensive Environmental Response, Compensation, and Liability Information System, is used by the U.S. EPA to track activities at hazardous waste sites considered for cleanup under CERCLA. CERCLA also maintains provisions and guidelines dealing with closed and abandoned waste sites and tracks amounts of liquid and solid media treated at sites on the NPL or sites that are under consideration for the NPL.

Occupational Safety and Health Standards

Occupational safety standards exist in federal and state laws to minimize worker safety risks from both physical and chemical hazards in the workplace. The Occupational Safety and Health Administration (OSHA) is responsible for ensuring worker safety in the workplace.

OSHA assumes primary responsibility for developing and enforcing standards for safe workplaces and work practices within the state. At sites known to be contaminated, a site safety plan must be prepared to protect workers. The site safety plan establishes policies and procedures to protect workers and the public from exposure to potential hazards at the contaminated site.

Resource Conservation and Recovery Act of 1976 (43 United States Code Sections 6901-6987)

The Resource Conservation and Recovery Act of 1976 (RCRA), including the Hazardous and Solid Waste Amendments of 1984 (HSWA), protects human health and the environment, and imposes regulations on hazardous waste generators, transporters, and operators of treatment, storage, and disposal facilities. The HSWA also requires the U.S. EPA to establish a comprehensive regulatory program for underground storage tanks. The corresponding regulations in 40 CFR Parts 260–299 provide the general framework for managing hazardous waste, including requirements for entities that generate, store, transport, treat, and dispose of hazardous waste.

State Laws and Requirements

Asbestos Regulations

Title 8 CCR Section 1529 regulates asbestos exposure in all construction work and defines permissible exposure limits and work practices. Typically, removal or disturbance of more than 100 square feet of material containing more than 0.1% asbestos must be performed by a registered asbestos abatement contractor, but associated waste labeling is not required if the material contains 1% or less asbestos. When the asbestos content of materials exceeds 1%, virtually all requirements of the standard become effective. With respect to potential worker exposure, notification, and registration requirements, the

California Division of Occupational Safety and Health (Cal/OSHA) defines asbestos-containing construction material as construction material that contains more than 0.1% asbestos (8 CCR 341.6).

Hazardous Waste Control Act

The state equivalent of RCRA is the Hazardous Waste Control Act (HWCA). HWCA created the State Hazardous Waste Management Program, which is similar to the RCRA program but generally more stringent. HWCA establishes requirements for the proper management of hazardous substances and wastes with regard to criteria for: (1) identification and classification of hazardous wastes; (2) generation and transportation of hazardous wastes; (3) design and permitting of facilities that recycle, treat, store, and dispose of hazardous wastes; (4) treatment standards; (5) operation of facilities; (6) staff training; (7) closure of facilities; and (8) liability requirements.

Emergency Services Act

Under the California Emergency Services Act, the State developed an emergency response plan to coordinate emergency services provided by all governmental agencies. The plan is administered by the California Office of Emergency Services (OES). OES coordinates the responses of other agencies, including the U.S. EPA, the Federal Emergency Management Agency, the California Highway Patrol, water quality control boards, air quality management districts, and county disaster response offices. Local emergency response teams, including fire, police, and sheriff's departments, provide most of the services to protect public health.

California Health and Safety Codes

The California Environmental Protection Agency (Cal-EPA) has been granted primary responsibility by EPA for administering and enforcing hazardous materials management plans within California. Cal-EPA defines a hazardous material more generally than the U.S. EPA as a material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released (26 CCR 25501).

State regulations include detailed planning and management requirements to ensure that hazardous materials are properly handled, stored, and disposed of to reduce human health risks. In particular, the State has acted to regulate the transfer and disposal of hazardous waste. Hazardous waste haulers are required to comply with regulations that establish numerous standards, including criteria for handling, documenting, and labeling the shipment of hazardous waste (26 CCR 25160 et seq.).

Cortese List

Cal-EPA maintains the Hazardous Wastes and Substances Site (Cortese) List, a planning document used by state and local agencies and developers to comply with CEQA requirements in providing information about the location of hazardous materials release sites. The list must be updated at least once per year, per Government Code Section 65962.5. The California Department of Toxic Substances Control (DTSC), State Water Resources Control Board, and California Department of Resources Recycling and Recovery all contribute to the site listings.

California Public Resources Code Sections 4201-4204

This section of the California Public Resources Code was amended in 1982 to require the California Department of Forestry and Fire Protection (CAL FIRE) to classify Fire Hazard Severity Zones within State Responsibility Areas (SRAs). CAL FIRE classifies lands within SRAs by severity of fire hazard present to identify measures to retard the rate of spreading and reduce the potential intensity of uncontrolled fires

that threaten to destroy resources, life, or property.

Local Laws and Requirements

Nevada County General Plan

The Nevada County General Plan serves as the overall guiding policy document for the unincorporated areas of Nevada County. A summary of the project's consistency with applicable General Plan hazardous material- and human health-related policies is contained in Appendix 3.0-A of the General Plan. While this Draft EIR analyzes the project's consistency with the General Plan pursuant to CEQA Section 15125(d), the Nevada County Board of Supervisors makes the ultimate determination of consistency with the General Plan. It should also be noted that the Safety Element of the Nevada County General Plan provides a framework for protecting the county from wildland fires. Policies include a requirement that the County coordinate and centralize fire safe reviews of development with respect to fire prevention and safety and implementation of Nevada County fire safety programs, standards, and procedures. Policies also include requirements for the County to implement road and private driveway standards, water supply standards, sign and address standards, and other standards to reduce hazards associated with the structural and wildland intermix, including fuel modification, vegetation management, and building setbacks for all development projects.

Multi-Jurisdiction, Multi-Hazard Mitigation Plan

The Nevada County Office of Emergency Services (OES), in coordination with the Nevada County Emergency Services Council, developed the DMA 2000 Multi-Jurisdiction, Multi-Hazard Mitigation Plan for Nevada County (2006) to meet the requirements of the Disaster Mitigation Act of 2000. The plan, based on hazard identification and analysis, provides a risk assessment of all potential natural and selected human-caused hazards, and identifies all potential types of disaster likely to occur in Nevada County. Potential disasters addressed in the plan include urban and wildland fire, flood, dam failure, avalanche, earth subsidence (cave-ins), severe weather, and agricultural and natural health hazards. Human-caused hazards addressed in the plan include hazardous materials incidents, arson and structural fire, and airborne hazards. The mitigation plan incorporates implementation and monitoring processes to mitigate these hazards, including submittal of a five-year written update to the OES and FEMA Region IX.

Nevada County and Nevada Operational Area Emergency Operations Plan

The Nevada County and Nevada Operational Area Emergency Operations Plan (EOP) (OES 2011) provides guidelines and a foundation for emergency response planning, preparation, training, and execution throughout Nevada County. The EOP is intended to preserve life, property, and the environment and thus delineates the preparation for, emergency response to, and recovery from the effects of natural disasters and emergencies as well as during man-made incidents. The EOP establishes county, city, and local agency responsibilities in the event of an emergency, provides guidance for mitigating emergencies and disasters in the unincorporated county, identifies emergency management methodology, and facilitates multi-agency multi-jurisdiction coordination (OES 2011).

Nevada County Environmental Health Department

As stated above, the Nevada County Environmental Health Department is the CUPA for Nevada County. As the CUPA, the department issues permits for hazardous material storage, the generation of hazardous waste, and underground and above ground storage tanks in Nevada County. The department also administers the Hazardous Material Release Response Plan and Inventory (Business Plan) and California Accidental Release Prevention programs.

3.9.2 Environmental Setting and Existing Conditions

A Hazardous Waste Initial Site Assessment was prepared by WRECO in October 2020 to obtain information regarding the potential for existing hazardous substances and/or petroleum product impacts within the project area (Caltrans 2020). WRECO conducted regulatory records searches, file reviews, historical database reviews, and a site reconnaissance. Environmental Data Resources, Inc. (EDR) searched federal, state, and local environmental databases for Recognized Environmental Condition (REC) listings pertaining to the project area and properties/facilities near the project area. On September 23, 2020, a site reconnaissance was performed by WRECO.

An Aerially Deposited Lead Screening-Level Site Investigation Report was prepared by Geocon Consultants, Inc. in July 2016 (Caltrans 2016). The purpose of this investigation was to assess whether lead is present in soil within the project boundaries at concentrations exceeding applicable regulatory criteria. Representative soil samples were taken and later quantified from areas where soil will be disturbed. It was concluded that soil excavated from the surface to a depth of 3.0 feet in the vicinity of the hand auger borings would not be classified as a California hazardous waste due to the lead concentrations for each sample being below the regulatory thresholds.

A Hazardous Materials Survey Final Report was prepared by Entek Consulting Group, Inc. in August 2015 (Caltrans 2015). The purpose of this inspection was to comply with the U.S. EPA National Emission Standards for Hazardous Air Pollutants requirements and with CARB which has jurisdiction for this project site to determine if asbestos containing materials are present which may be impacted during an upcoming rehabilitation project. Of the samples taken, none were determined to contain detectable asbestos. Bulk samples representing the metal painted surfaces were collected and analyzed. The samples collected contained detectable amounts of lead regulated by Cal/OSHA.

North Bloomfield-Graniteville Road is narrow and winding on either side of the bridge. The road would be utilized to transport equipment and materials to the site during construction of the new bridge. The existing bridge will remain open during construction and remain in place after construction. The following RECs have potential to be present on the bridge or within the project area.

- Potential asbestos-containing materials (ACM) in the concrete supports beneath the existing bridge.
- Potential lead-based paint (LBP) on the metal railings and support beams of the existing bridge.
- Potential aerially deposited lead (ADL) in exposed soil south of the existing bridge from historical vehicle emissions during the leaded gasoline era.
- Potential for elevated levels of metals within soils from historical mines and gold occurrences in the project vicinity.
- Potential for naturally occurring asbestos (NOA) to be present in soils near the project site.

3.9.3 Thresholds of Significance

Would the Project:

- a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*
- b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*
- c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*
- d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to*

Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

- 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 or excessive noise for people residing or working in the project area?*
- f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*
- g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?*

3.9.4 Environmental Impacts

IMPACT HA-1: Potential to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

During short-term construction activities, the project would involve the use of heavy equipment for the grading, hauling, and handling of materials. Use of this equipment may require the use of fuels and other common materials that have hazardous properties (e.g., fuels are flammable). These materials would be used in accordance with all applicable laws and regulations and, if used properly, would not pose a hazard to people, animals, or plants. All refueling of construction vehicles and equipment would occur within the designated areas of the project area. The use of hazardous materials would be short-term and temporary. The operation of the project facility would not have routine transport, use or disposal of hazardous materials. Within implementation mitigation measure **HAZ-1**, the project contractor would be required to prepare a Spill Prevention, Control, and Countermeasure Program (SPCCP) to prevent any potentially significant impacts. Impacts related to both Alternative 1 and 2 would be **Less than Significant with Mitigation**. The No-Build alternative would result in **No Impact**.

IMPACT HA-2: Potential to 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?

During short-term construction activities, the project would require ground disturbance that would cause the potential for unknown contaminants or accident conditions involving the release of hazardous materials into the environment, as well as upset or accidents relating to machinery. Additionally, according to the project's ISA results, potential RECs within the project boundaries would include the following:

- Potential ACM in the concrete supports beneath the existing bridge.
- Potential LBP on the metal railings and support beams of the existing bridge.
- Potential ADL in exposed soil south of the existing bridge from historical vehicle emissions during the leaded gasoline era.
- Potential for elevated levels of metals within soils from historical mines and gold occurrences in the project vicinity.
- Potential for NOA to be present in soils near the project site.

The scope of an ISA is limited to anecdotal and visual evidence of potential RECs and does not include verification of RECs based upon environmental testing. An Aerially Deposited Lead Screening-Level Site Investigation Report determined that soil excavated from the surface to a depth of 3.0 feet in the vicinity of the hand auger borings would not be classified as a California hazardous waste due to the lead concentrations for each sample being below the regulatory thresholds (Caltrans 2016). A Hazardous

Materials Survey Final Report determined that of the samples taken, none were determined to contain detectable asbestos. However, bulk samples representing the metal painted surfaces were collected and analyzed. The samples collected contained detectable amounts of lead regulated by Cal/OSHA (Caltrans 2015). With the implementation of mitigation measure **HAZ-1** and **HAZ-2** during short-term construction activities, any potential significant hazard to the public or the environment would be reduced to less than significant. The project would have no operational effects relating to reasonably foreseeable upset and accident conditions involving the release of hazardous materials. Impacts related to both Alternative 1 and 2 would be **Less than Significant with Mitigation**. The No-Build alternative would result in **No Impact**.

IMPACT HA-3: Potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No schools are located within one-quarter mile of the project site. Therefore, Alternative 1 and 2 would result in **No Impact**. The No-Build alternative would also result in **No Impact**.

IMPACT HA-4: Potential to 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?

EnviroStor and GeoTracker were used to find active hazardous waste sites within the project vicinity. There were no records indicated in the EnviroStor and GeoTracker databases. Therefore, Alternative 1 and 2 would result in **No Impact**. The No-Build alternative would also result in **No Impact**.

IMPACT HA-5: Potential to be 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. The Project would not result in a safety hazard or excessive noise for people residing or working in the Project area?

The project would not result in a safety hazard for people residing or working in the project area as the project is not within the vicinity of an airport land use plan or within two miles of a public airport or public use airport. Therefore, Alternative 1 and 2 would result in **No Impact**. The No-Build alternative would also result in **No Impact**.

IMPACT HA-6: Potential to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The project's short-term construction activities or operation would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. During short-term construction activities traffic would be accommodated to allow for movement through the area. Operational effects on future traffic congestion or interference with an emergency evacuation plan route Has the potential to occur with Alternative 1. Alternative 1 would result in a **Potentially Significant Impact** due to the hairpin turn still existing and preventing emergency vehicles from accessing the public. Mitigation Measure **TRA-1** would be implemented to reduce temporary impacts to a less than significant level. Impacts related to Alternative 2 would be **Less than Significant with Mitigation**. The current bridge is a significant hazard to emergency response time and access if the proposed bridge is not constructed. Therefore, the No-Build alternative would result in a **Potentially Significant Impact**.

IMPACT HA-7: Potential to expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

The project's short-term construction activities or operation would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. In addition, mitigation measures **WF-1**

through **WF-4** (see Section 3.20) would be added to minimize and potential impacts. Impacts related to both Alternative 1 and 2 would be **Less than Significant**. The No-Build alternative would result in **No Impact**.

Alternatives Summary

Alternative 1 New Bridge approximately 60 feet upstream

Hazardous waste impacts are not anticipated to be significant as a result of Alternative 1. The potential to encounter unknown substances would be similar for both alternatives due to the ground disturbance activities planned. With the mitigation measures below, impacts would be reduced to less than significant levels.

Alternative 2 New Bridge approximately 1,000 feet upstream

Hazardous waste impacts are not anticipated to be significant as a result of Alternative 2. The potential to encounter unknown substances would be similar for both alternatives due to the ground disturbance activities planned. With the mitigation measures below, impacts would be reduced to less than significant levels.

Alternative 3 No-Build

This alternative would not build a replacement bridge adjacent to the existing, structurally deficient bridge. The current bridge is a significant hazard to emergency response time and access if the proposed bridge is not constructed. There are no feasible mitigation measures that would reduce impacts. Therefore, the No-Build alternative would result in a potentially significant impact.

3.9.5 Avoidance, Minimization, and/or Mitigation Measures

Avoidance and minimization measures would be implemented through the use of BMPs below during construction.

HAZ-1: The contractor shall prepare a SPCCP prior to the commencement of construction activities. The SPCCP shall include information on the nature of all hazardous materials that shall be used on-site. The SPCCP shall also include information regarding proper handling of hazardous materials and clean-up procedures in the event of an accidental release. The phone number of the agency overseeing hazardous materials and toxic clean-up shall be provided in the SPCCP.

HAZ-2: There is a potential that the proposed Project could result in the removal of lead-based paint from the existing bridge. If this lead-based paint is affected as a result of the Project, it will be collected, tested, and/or disposed of in accordance with applicable regulations.

3.10 HYDROLOGY/WATER QUALITY

3.10.1 Regulatory Setting

Federal Laws and Requirements

Clean Water Act

In 1972 Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to the waters of the United States (U.S.) from any point source unlawful unless the discharge is in compliance with a NPDES permit. Known today as the CWA, Congress has amended it several times. In the 1987 amendments, Congress directed dischargers of stormwater from municipal and industrial/construction point sources to comply with the NPDES permit scheme. Important CWA sections are:

- Sections 303 and 304 require states to promulgate water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for a federal license or permit to conduct any activity, which may result in a discharge to waters of the U.S., to obtain certification from the State that the discharge would comply with other provisions of the act. (Most frequently required in tandem with a Section 404 permit request. See below).
- Section 402 establishes the NPDES, a permitting system for the discharges (except for dredge or fill material) of any pollutant into waters of the U.S. Regional Water Quality Control Boards administer this permitting program in California. Section 402(p) requires permits for discharges of stormwater from industrial/construction and Municipal Separate Storm Sewer Systems (MS4s).
- Section 404 establishes a permit program for the discharge of dredge or fill material into waters of the U.S. This permit program is administered by the USACE.

The objective of the CWA is “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”

USACE issues two types of 404 permits: Standard and General permits. For General permits there are two types: Regional permits and Nationwide permits. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to authorize a variety of minor project activities with no more than minimal effects.

There are also two types of Standard permits: Individual permits and Letters of Permission. Ordinarily, projects that do not meet the criteria for a Nationwide Permit may be permitted under one of USACE’s Standard permits. For Standard permits, the USACE decision to approve is based on compliance with U.S. EPA’s Section 404 (b)(1) Guidelines (U.S. EPA CFR 40 Part 230), and whether permit approval is in the public interest. The 404(b)(1) Guidelines were developed by the U.S. EPA in conjunction with USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that USACE may not issue a permit if there is a Least Environmentally Damaging Practicable Alternative (LEDPA), to the proposed discharge that would have less effects on waters of the U.S., and not have any other significant adverse environmental consequences. Per Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures has been followed, in that order. The Guidelines also restrict permitting activities that violate water quality or toxic effluent standards, jeopardize the

continued existence of listed species, violate marine sanctuary protections, or cause “significant degradation” to waters of the U.S. In addition, every permit from the USACE, even if not subject to the 404(b)(1) Guidelines, must meet general requirements. See 33 CFR 320.4.

State Laws and Requirements

Porter-Cologne Water Quality Control Act

California’s Porter-Cologne Act, enacted in 1969, provides the legal basis for water quality regulation within California. This Act requires a “Report of Waste Discharge” for any discharge of waste (liquid, solid, or gaseous) to land or surface waters that may impair beneficial uses for surface and/or groundwater of the State. It predates the CWA and regulates discharges to waters of the State. Waters of the State include more than just waters of the U.S., like groundwater and surface waters not considered waters of the U.S. Additionally, it prohibits discharges of “waste” as defined and this definition is broader than the CWA definition of “pollutant.” Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA.

The State Water Resources Control Board (SWRCB) and RWQCBs are responsible for establishing the water quality standards (objectives and beneficial uses) required by the CWA, and regulating discharges to ensure compliance with the water quality standards. Details regarding water quality standards in a project area are contained in the applicable RWQCB Basin Plan. In California, Regional Boards designate beneficial uses for all water body segments in their jurisdictions, and then set criteria necessary to protect these uses. Consequently, the water quality standards developed for particular water segments are based on the designated use and vary depending on such use. In addition, the SWRCB identifies waters failing to meet standards for specific pollutants, which are then state-listed in accordance with CWA Section 303(d). If a state determines that waters are impaired for one or more constituents and the standards cannot be met through point source or non-source point controls (NPDES permits or Waste Discharge Requirements), the CWA requires the establishment of Total Maximum Daily Loads (TMDLs). TMDLs specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed.

State Water Resources Control Board and Regional Water Quality Control Boards

The SWRCB adjudicates water rights, sets water pollution control policy, and issues water board orders on matters of statewide application, and oversees water quality functions throughout the state by approving Basin Plans, TMDLs, and NPDES permits. RWQCBs are responsible for protecting beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility.

Construction General Permit

Construction General Permit (Order No. 2009-009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ), became effective on February 14, 2011 and July 17, 2012, respectively. The permit regulates stormwater discharges from construction sites which result in a land disturbance of equal to or greater than one acre, and/or are smaller sites that are part of a larger common plan of development. For all projects subject to the Construction General Permit (CGP), applicants are required to develop and implement an effective SWPPP. In accordance with Caltrans’ Standard Specifications, a Water Pollution Control Program (WPCP) is necessary for projects with land disturbance less than one acre.

By law, all stormwater discharges associated with construction activity, including, but not limited to, clearing, grading grubbing or excavation, or any other activity that results in a land disturbance of equal

to or greater than one acre must comply with the provisions of the CGP. Construction activity that results in soil disturbances of less than one acre is subject to this CGP if there is potential for significant water quality impairment resulting from the activity as determined by the RWQCB. Operators of regulated construction sites are required to develop a Stormwater Pollution Prevention Plan; to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the CGP.

The CGP separates projects into Risk Levels 1, 2, or 3. Risk levels are determined during the planning and design phases, and are based on potential erosion and transport to receiving waters. Requirements apply according to the Risk Level determined. For example, a Risk Level 3 (highest risk) project would require compulsory stormwater runoff pH and turbidity monitoring, and pre- and post-construction aquatic biological assessments during specified seasonal windows.

Section 401 Permitting

Under Section 401 of the CWA, any project requiring a federal license or permit that may result in a discharge to a water of the United States must obtain a 401 Certification, which certifies that the project would be in compliance with State water quality standards. The most common federal permit triggering 401 Certification is a CWA Section 404 permit, issued by USACE. The 401 Certification is obtained from the appropriate RWQCB, dependent on the project location, and is required before USACE issues a 404 permit.

In some cases the RWQCB may have specific concerns with discharges associated with a project. As a result, the RWQCB may issue a set of requirements known as WDRs under the State Water Code (Porter-Cologne Act) that define activities, such as the inclusion of specific features, effluent limitations, monitoring, and plan submittals that are to be implemented for protecting or benefiting water quality. WDRs can be issued to address both permanent and temporary discharges of a project.

Local Laws and Requirements

The general objective for all waters of the Central Valley Region is as follows:

The anti-degradation directives of Section 13000 of the Water Code and State Water Board Resolution No. 68-16 ("Statement of Policy With Respect to Maintaining High Quality Waters in California") require that high quality waters of the State shall be maintained "consistent with the maximum benefit to the people of the State." The Regional Water Board applies these directives when issuing a permit, or in an equivalent process, regarding any discharge of waste which may affect the quality of surface or ground waters in the region.

Implementation of this policy to prevent or minimize surface and ground water degradation is a high priority for the Board. In nearly all cases, preventing pollution before it happens is much more cost-effective than cleaning up pollution after it has occurred. Once degraded, surface water is often difficult to clean up when it has passed downstream. Likewise, cleanup of ground water is costly and lengthy due, in part, to its relatively low assimilative capacity and inaccessibility. The prevention of degradation is, therefore, an important strategy to meet the policy's objectives.

The Regional Water Board will apply Resolution No. 68-16 in considering whether to allow a certain degree of degradation to occur or remain. In conducting this type of analysis, the Regional Water Board will evaluate the nature of any proposed discharge, existing discharge, or material change therein, that could affect the quality of waters within the region. Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from

occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.

Pursuant to this policy, a Report of Waste Discharge, or any other similar technical report required by the Board pursuant to Water Code Section 13267, must include information regarding the nature and extent of the discharge and the potential for the discharge to affect surface or ground water quality in the region. This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives. The extent of information necessary will depend on the specific conditions of the discharge. For example, use of best professional judgment and limited available information may be sufficient to determine that ground or surface water will not be degraded. In addition, the discharger must identify treatment or control measures to be taken to minimize or prevent water quality degradation.

Nevada County General Plan

The Nevada County General Plan serves as the overall guiding policy document for the unincorporated areas of Nevada County. The following summarizes the proposed project's consistency with the applicable policies from the County's General Plan relating to hydrology and water quality:

- Policy 12.4, *Require erosion control measures as an element of all County contracts, discretionary projects, and ministerial projects.*

3.10.2 Environmental Setting and Existing Conditions

A Water Quality Assessment Report was prepared by Dokken Engineering in August 2020 to identify any potential water quality impacts/benefits associated with the proposed project (Caltrans 2020).

The project area includes the South Fork Yuba River and a small tributary to the river which occurs to the south of the main channel. The main channel of the river is perennially flowing, with rocky, cobbly, and gravely substrate mixed with occasional sand. The river supports vegetative cover of less than 30% and lacks planktonic forms, due to the substrate composition and rate of flow. The small tributary flows down the southern slope via a steep, rocky route that supports mesic vegetation, such as ferns and bryophytes. The tributary is seasonal and cannot support fish or aquatic wildlife. It travels under North Bloomfield-Graniteville Road to eventually drain into the channel of the South Fork Yuba River.

Local Hydrology

Surface Water Features

The South Yuba River is fed by numerous tributaries. Approximately one mile upstream from the project site, Kenebec Creek flows into the river with Humbug Creek meeting the river several miles upstream. Slightly downstream from the project Spring Creek flows into the river.

Floodplains

The FEMA Flood Insurance Rate Map (FIRM) indicates the South Yuba River is designated as Zone A, which specifies a special flood hazard area subject to inundation by the 1% annual chance flood, while the bridge and surrounding area is designated as Zone X, which specifies an area with minimal flood hazard.

Municipal Supply

Drinking water in vicinity of the project area is by private wells.

Groundwater

Groundwater within northwestern Nevada County is poorly defined and variable.

Wetlands

The South Yuba River does not have wetland features within the project site.

3.10.3 Thresholds of Significance

Would the Project:

- a) *Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*
- b) *Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the project may impede sustainable groundwater management of the basin?*
- c) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:*
 - (i) result in substantial erosion or siltation on- or off-site;*
 - (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;*
 - (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or*
 - (iv) impede or redirect flood flows?*
- d) *In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?*
- e) *Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

3.10.4 Environmental Impacts

IMPACT HYD-1: Potential to violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

The project would disturb greater than one acre, therefore a Construction Storm Water General Permit is required, consistent with Construction General Permit Order No. 2009-009-DWQ, issued by the SWRCB to address storm water runoff. The permit would address grading, clearing, grubbing, and disturbances to the ground, such as stockpiling, or excavation. This permit would also require the preparation and implementation of a SWPPP with the intent of keeping all products of erosion from moving off site into receiving waters. The SWPPP includes BMPs to prevent construction pollutants from entering storm water runoff. By preparing and following the stormwater BMPs provided in the SWPPP, along with the inclusion of mitigation measures **WQ-1** through **WQ-7**, impacts related to both Alternative 1 and 2 would be **Less than Significant with Mitigation**. The No-Build alternative would result in **No Impact**.

IMPACT HYD-2: Potential to substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?

The project would not directly or indirectly result in the construction of uses that would utilize groundwater supplies. Therefore, Alternative 1 and 2 would result in **No Impact**. The No-Build alternative would also result in **No Impact**.

IMPACT HYD-3: Potential to substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of

impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation on- or off-site; (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or (iv) impede or redirect flood flows?

Short-term construction activities would result in the minor loss of vegetation and general disturbance to the soil within the project footprint. Removal of vegetation and soil can accelerate erosion processes within the project area and increase the potential for sediment to enter into the South Yuba River. Operation of the completed project would have no effects to erosion or siltation. In order to prevent substantial erosion or siltation, the project would implement measures **WQ-1** through **WQ-7** to ensure the project will conform with current regulations and no significant effects would occur.

The project's operation is not anticipated to substantially increase the rate or amount of surface runoff or create or contribute to runoff water which would exceed the capacity of existing or planned stormwater drainage systems. However, temporary construction of the project may increase the potential for erosion, and the completed project would increase impervious surface area resulting in additional storm water drainage within the project area. The project would add a net impervious surface area of approximately 0.12 acres for Alternative 1 and 0.30 acres for Alternative 2, but would include an approach drainage system to direct runoff appropriately. The impervious surface generated by the project is the minimum area practicable to meet the project objectives and minimum width roadway design standards. As discussed in Avoidance and Minimization Measure **WQ-6**, permanent treatment control BMPs will be included during final design.

The project's short-term construction activities would result in the alteration of the existing drainage pattern that would impede or redirect flood flows. However, with conformance to current NPDES regulations, implementation of the project SWPPP, and incorporation of **WQ-1** through **WQ-7**, impacts would be reduced. Impacts related to both Alternative 1 and 2 would be **Less than Significant with Mitigation**. The No-Build alternative would result in **No Impact**.

IMPACT HYD-4: Potential to risk release of pollutants due to Project inundation?

The FEMA FIRM indicates that the South Yuba River itself is designated as Zone A, which specifies a special flood hazard area subject to inundation by the 1% annual chance flood (see Appendix F). The actual bridge and surrounding area are at a higher elevation than the South Yuba River. This area is indicated as Zone X, which specified an area with minimal flood hazard. Short-term construction activities would have the potential for the release of pollutants within the flood hazard area. However, no operational risks would occur once the bridge is completed and is in full operation for its intended purpose. During short-term construction activities the project would require conformance to current NPDES regulations, implementation of the project SWPPP, and the project would incorporate measures **WQ-1** through **WQ-7**, to reduce the potential for significant effects due to flooding or accidental release of pollutants. Impacts related to both Alternative 1 and 2 would be **Less than Significant with Mitigation**. The No-Build alternative would result in **No Impact**.

IMPACT HYD-5: Potential to conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

The project must adhere to the MS4 and NPDES permit which includes water quality and watershed protection measures necessary for proper storm water management. The project's short-term construction or completed operation would not obstruct implementation of a water quality control plan or sustainable groundwater management plan. During short-term construction activities the project

would require conformance to current NPDES regulations, implementation of the project SWPPP, and the project would incorporate measures **WQ-1** through **WQ-7** to reduce any potential effects to water quality. Impacts related to both Alternative 1 and 2 would be **Less than Significant with Mitigation**. The No-Build alternative would result in **No Impact**.

Alternatives Summary

Alternative 1 New Bridge approximately 60 feet upstream

The project would add a net impervious surface area of approximately 0.12 acres for Alternative 1 but would include an approach drainage system to direct runoff appropriately. With the inclusion of the mitigation measures below, impacts would be reduced to a less than significant level.

Alternative 2 New Bridge approximately 1,000 feet upstream

The project would add a net impervious surface area of approximately 0.30 acres for Alternative 2 but would include an approach drainage system to direct runoff appropriately. With the inclusion of the mitigation measures below, impacts would be reduced to a less than significant level.

Alternative 3 No-Build

This alternative would not build a replacement bridge upstream from the existing, structurally deficient bridge. No mitigation measures would be implemented.

3.10.5 Avoidance, Minimization, and/or Mitigation Measures

The minimization and mitigation measures would be implemented to reduce impacts to a less than significant level for both build alternatives.

WQ-1: BMPs will be incorporated into project design and project construction to minimize impacts on the environment:

- The area of construction and disturbance shall be limited to as small an area as feasible to reduce erosion and sedimentation.
- Measures shall be implemented during land-disturbing activities to reduce erosion and sedimentation. These measures may include mulches, soil binders and erosion control blankets, silt fencing, fiber rolls, temporary berms, sediment desilting basins, sediment traps, and check dams.
- Existing vegetation shall be protected where feasible to reduce erosion and sedimentation. Vegetation shall be preserved by installing temporary fencing, or other protection devices, around areas to be protected.
- Exposed soils shall be covered by loose bulk materials or other materials to reduce erosion and runoff during rainfall events.
- Exposed soils shall be stabilized, through watering or other measures, to prevent the movement of dust at the project site caused by wind and construction activities such as traffic and grading activities.
- All construction roadway areas shall be properly protected to prevent excess erosion, sedimentation, and water pollution.
- All vehicle and equipment maintenance procedures shall be conducted off-site. In the event of an emergency, maintenance would occur in a staging area away from the river.
- All concrete curing activities shall be conducted to minimize spray drift and prevent curing compounds from entering the waterway directly or indirectly.

- All construction materials, vehicles, stockpiles, and staging areas shall be situated outside of the river channel. All stockpiles would be covered, as feasible.
- Energy dissipaters and erosion control pads would be provided at the bottom of slope drains. Other flow conveyance control mechanisms may include earth dikes, swales, or ditches. Riverbank stabilization measures shall also be implemented, if necessary.
- All erosion control measures and stormwater control measures shall be properly maintained until the site has returned to a pre-construction state.
- All disturbed areas shall be restored to pre-construction contours and revegetated, either through hydroseeding or other means, with native species.
- All construction materials shall be hauled off-site after completion of construction.

WQ-2: Any requirements for additional avoidance, minimization, and/or mitigation measures will be contained in the permits obtained from required regulatory agencies.

WQ-3: The project limits in proximity to the South Yuba River will be marked as an ESA or either be staked or fenced with high visibility material to ensure construction activities will not encroach further beyond established limits.

WQ-4: The proposed project will require a NPDES General Construction Permit for Discharges of stormwater associated with construction activities. A SWPPP or WPCP will also be developed and implemented as part of the Construction General Permit.

WQ-5: The construction contractor shall adhere to the SWRCB Order No. 2012-0006-DWQ NPDES Permit pursuant to Section 402 of the CWA. This permit authorizes stormwater and authorized non-stormwater discharges from construction activities. As part of this Permit requirement, an SWPPP or WPCP shall be prepared prior to construction consistent with the requirements of the RWQCB. This SWPPP shall incorporate all applicable BMPs to ensure that adequate measures are taken during construction to minimize impacts to water quality.

WQ-6: Design pollution prevention BMPs will be evaluated based on effectiveness and feasibility and incorporated into the final design as applicable.

WQ-7: Stormwater systems will be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials or other elements that might degrade or harm biological resources.

3.11 LAND USE/PLANNING

3.11.1 Regulatory Setting

Local Laws and Requirements

Nevada County General Plan

The Nevada County General Plan – Chapter 1: Land Element, contains goals, objectives, and policies to establish the desired land use pattern that balances growth between rural and urban areas. The following goal is applicable to Land Use and Planning:

- Goals 1.3, *Within Rural Regions, maintain and enhance the County’s pastoral character, existing land use patterns, rural lifestyle, and economy in their natural setting.*

Nevada County Zoning Ordinance

The Nevada County Zoning Ordinance (Chapter II of the Land Use and Development Code) provides specific development and land use standards for all unincorporated areas of the County with the intent of implementing and ensuring consistency with the goals, objectives, and policies of the Nevada County General Plan. The Zoning Ordinance sets forth zoning districts for the unincorporated areas of the County, with regulations for each district governing the uses land and structure and comprehensive site development standards.

3.11.2 Environmental Setting and Existing Conditions

The project area is zoned as OS in the Nevada County General Plan and is on BLM recreational land. The project area is near South Yuba River State Park (CA State Parks) land, but not within it.

3.11.3 Thresholds of Significance

Would the Project:

- a) Physically divide an established community?*
- b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?*

3.11.4 Environmental Impacts

IMPACT LU-1: Potential to physically divide an established community?

The project is not in or near a residential area and would not divide an established community. Therefore, Alternative 1 and 2 would result in **No Impact**. The No-Build alternative would also result in **No Impact**.

IMPACT LU-2: Potential to cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The project will require temporary and permanent easements from BLM; however, the extent of right-of-way would depend on the alternative that is selected. Encroachment permits will be obtained from agencies with jurisdiction as necessary during final design. The project would not change the land use or zoning (zoned as Open Space in the Nevada County General Plan and on BLM recreational land) and does not conflict with any applicable land use plan, policy, or regulatory agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. Impacts related to

both Alternative 1 and 2 would be **Less than Significant**. The No-Build alternative would result in **No Impact**.

Alternatives Summary

Alternative 1 New Bridge approximately 60 feet upstream

Due to the location of the project and distance from any current or planned land use development, neither alternative would impact land use or planning in Nevada County.

Alternative 2 New Bridge approximately 1,000 feet upstream

Due to the location of the project and distance from any current or planned land use development, neither alternative would impact land use or planning in Nevada County.

Alternative 3 No-Build

This alternative would not build a replacement bridge upstream from the existing, structurally deficient bridge. No mitigation measures would be implemented.

3.11.5 Avoidance, Minimization, and/or Mitigation Measures

The project would have less than significant on land use and would continue to be designated as Open Space by Nevada County. Therefore, no mitigation measures are necessary.

3.12 MINERAL RESOURCES

3.12.1 Regulatory Setting

Federal Laws and Requirements

General Mining Act of 1872

The General Mining Act of 1872 governs prospecting and mining of locatable economic minerals on federal public lands. Locatable minerals include metallic minerals, such as gold, silver, lead, copper, zinc, and nickel, and nonmetallic minerals, such as mica, gypsum, and gemstones. Not covered by the act are common varieties of sand, gravel, stone, pumice, and cinders, which are governed by the Materials Act of 1947.

The General Mining Act allows citizens to stake a mining claim on federal land. The mining claim right is restricted to the development and extraction of a mineral deposit, and the unpatented mining claim is not private property (i.e., the property is still federal land). The BLM has the right to manage the surface and surface resources on an unpatented mining claim. This includes public access across an unpatented mining claim.

Materials Act of 1947

The Materials Act of 1947 authorizes the BLM to sell mineral materials at fair market value and to grant free use permits for mineral materials to Government agencies and, for a limited amount, to nonprofit organizations. Mineral materials include materials used in construction, agriculture, and decorative applications, such as crushed stone, dimension stone, and sand and gravel.

Federal Land Policy and Management Act

The Federal Land Policy and Management Act (FLPMA) of 1976 establishes an approach to managing and preserving public lands to protect "the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values." The FLPMA is administered by the Bureau of Land Management (BLM), which is required to establish a planning process that accommodates multiple land uses. Uses of public lands that the BLM manages include commercial, recreational, and conservation uses.

State Laws and Requirements

Surface Mining and Reclamation Act of 1975

The Surface Mining and Reclamation Act of 1975 (SMARA) (PRC 2710–2719) is the principal legislation addressing mineral resources in California. SMARA was enacted in response to land use conflicts between urban growth and essential mineral production. The stated purpose of SMARA is to provide a comprehensive surface mining and reclamation policy that will encourage the production and conservation of mineral resources while ensuring that adverse environmental effects of mining are prevented or minimized; that mined lands are reclaimed and residual hazards to public health and safety are eliminated; and that consideration is given to recreation, watershed, wildlife, aesthetic, and other related values.

SMARA provides for the evaluation of an area's mineral resources using a system of mineral resource zone (MRZ) classifications that reflect the known or inferred presence and significance of a given mineral resource. MRZ classifications are based on available geologic information, including geologic mapping and

other information on surface exposures, drilling records, and mine data, and socioeconomic factors such as market conditions and urban development patterns.

SMARA governs the use and conservation of a wide variety of mineral resources. However, certain resources and activities are exempt from the provisions of SMARA. Subject to certain conditions, exempted activities include excavation and grading conducted for farming, on-site construction, or recovery from flooding or other natural disaster.

Local Laws and Requirements

Nevada County General Plan

The County Surface Mining Permits and Reclamation Plans (Section L-II 3.22 of the County Code) recognizes the SMARA MRZ designations and identifies requirements related to mining and mine reclamation. In addition, the County General Plan has designated land uses and zoning on sites with previous or potential mines.

3.12.2 Environmental Setting and Existing Conditions

The project area for both Alternatives 1 and 2 are partially located within an MRZ. However, according to Section L-II 3.22 of the County Code, this project would be considered exempt because it involves “on-site excavation and on-site earthmoving activities which are an integral and necessary part of a construction project that are undertaken to prepare a site for construction of structures, landscaping, or other land improvements, including the related excavation, grading, compaction, or the creation of fills, road cuts, and embankments.”

3.12.3 Thresholds of Significance

Would the Project:

- a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*
- b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?*

3.12.4 Environmental Impacts

IMPACT MR-1: Potential to 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?

The project will not 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. Although the project is partially located within an MRZ, as shown in the County General Plan, there would not be an impact to a known mineral resource. Additionally, the project would be considered exempt from requiring a mining permit, according to the Nevada County Land Use and Development Code. Alternative 1 and 2 would be **Less than Significant**. The No-Build alternative would result in **No Impact**.

IMPACT MR-2: Potential to 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?

The project will not 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. The construction activities associated with the project are considered exempt under the Nevada County Land Use and Development

Code. Alternative 1 and 2 would be **Less than Significant**. The No-Build alternative would result in **No Impact**.

Alternatives Summary

Alternative 1 New Bridge approximately 60 feet upstream

Although the project is in an MRZ, there would no impact to a known mineral resource. Neither alternative would impact mineral resources in Nevada County.

Alternative 2 New Bridge approximately 1,000 feet upstream

Although the project is in an MRZ, there would no impact to a known mineral resource. Neither alternative would impact mineral resources in Nevada County.

Alternative 3 No-Build

This alternative would not build a replacement bridge upstream from the existing, structurally deficient bridge. No mitigation measures would be implemented.

3.12.5 Avoidance, Minimization, and/or Mitigation Measures

The project would have less than significant impact on mineral resources. Therefore, no mitigation measures are necessary.

3.13 NOISE

3.13.1 Regulatory Setting

Local Laws and Requirements

Nevada County General Plan

Chapter 9 (Noise) of the Nevada County General Plan establishes Goals, Policies, and Land Use Compatibility Criteria for new developments. The Nevada County Noise Element establishes exterior noise limits for various land-use categories in terms of Leq and Lmax for daytime and nighttime noise levels. Leq is a common statistical tool used to measure the average, or equivalent, sound level over a given time period (usually one hour). Policy 9.1.2 of the Nevada County General Plan Noise Element lists performance standards and land use compatibility standards that apply to all discretionary and ministerial projects excluding permitted residential (including tentative maps) land uses. The following noise standards are relevant to the proposed project area:

Table 8: Nevada County Noise Element Exterior Noise Limits

Land Use Category	Time Period	Noise Level, dBA	
		Leq	Lmax
Commercial and Recreational	7 am – 7 pm	70	90
	7 pm – 7 am	65	75

Nevada County Land Use Development Code

Under the Nevada County Land Use Development Code, Chapter 11, Zoning Regulations, Section L-II, 4.1., Noise, construction activity is exempt from the County’s noise standards.

3.13.2 Environmental Setting and Existing Conditions

A Noise Technical Memorandum was prepared by Dokken Engineering in November 2020 to identify any potential temporary and permanent noise impacts resulting from the proposed project (Caltrans 2020).

A review of aerial photography and the County of Nevada General Plan Land Use Map were studied to identify sensitive noise receptors that could be subject to traffic and construction noise impacts from the proposed project. Receptors were included in this assessment if they were located in sensitive land uses within 500 feet of the proposed Edwards Crossing Bridge replacement that would benefit from a lowered noise level. Only two sensitive noise-areas were identified within the 500-foot radius, both occurring in parks and recreational land uses. A receptor was placed for each of the trailheads for the Spring Creek Trail (R1) and South Yuba Trail (R2) adjacent to the project site. No other sensitive noise receptors were identified within the project vicinity.

The geometry of the project relative to nearby existing and planned land uses was also identified. Given the steep topography and high probability for noise pollution during noise measurements (waterflow from the South Yuba River), it was determined that a noise measurement for the purposes of calibration of the noise model would not be necessary or beneficial.

3.13.3 Thresholds of Significance

Would the Project result in:

- a) *Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*
- b) *Generation of excessive groundborne vibration or groundborne noise levels?*

- c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?

3.13.4 Environmental Impacts

IMPACT NOI-1: Potential to result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Temporary Construction Noise

During construction of the project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Table 9 below summarizes noise levels produced by construction equipment that is commonly used on roadway construction projects. Construction equipment is expected to generate noise levels ranging from 70 to 90 dB at a distance of 50 feet, and noise produced by construction equipment would be reduced over distance at a rate of about 6 dB per doubling of distance.

Table 9: Construction Equipment Noise

Equipment	Maximum Noise Level (dBA at 50 feet)
Scrapers	89
Bulldozers	85
Heavy Trucks	88
Backhoe	80
Pneumatic Tools	85
Concrete Pump	82

Source: Federal Transit Administration 2006.

Temporary construction noise activities between Build Alternatives 1 and 2 would be comparable. Furthermore, there are no residents that would be impacted by construction noise within 500 feet of the construction activity. No significant noise impacts from temporary construction activity are anticipated because construction would be conducted in accordance with local noise standards and construction noise would be short-term and intermittent. Measure **NOI-1** below would be implemented to minimize construction-generated noise.

Permanent Operational Noise

Traffic noise levels were predicted using the FHWA Traffic Noise Model Version 2.5 (TNM 2.5). Key inputs to the traffic noise model were the locations of roadways, shielding features, ground type, and receivers.

Traffic noise was evaluated under existing conditions, design year No Build conditions, and design year conditions with the two build alternatives. Loudest-hour traffic volumes and traffic speeds were provided by the County of Nevada for input into the traffic noise model. Future traffic noise levels were estimated by applying Nevada County's 0.6% annual growth rate based on the most recent Nevada County RTP.

Tables 10 and 11 below summarizes the traffic noise modelling results for the existing and design year (2042) conditions with the No build and each of the two Build Alternatives. The modeled future noise levels for the Build Alternative were compared to the Nevada County General Plan Noise Standards to determine whether a traffic noise impact would occur. Traffic noise impacts occur when either of the following occurs: (1) if the traffic noise level at a sensitive receptor location is predicted to exceed 70 Leq,

or (2) if the predicted traffic noise level is 12 dBA or more over the corresponding modeled existing noise level at the sensitive receptor locations analyzed.

Table 10: Comparison of Modeled Existing and Future Noise Levels (Alternative 1)

Receiver ID	Location	Type of Land Use	Modeled Existing Peak Noise Level, dBA Leq(h)	Modeled 2042 No Build Peak Noise Level, dBA Leq(h)	Modeled 2042 Build Peak Noise Level, dBA Leq(h)
R1	Spring Creek Trailhead	Parks and Recreation	36	36	32
R2	South Yuba Trailhead	Parks and Recreation	40	40	37

Table 11: Comparison of Modeled Existing and Future Noise Levels (Alternative 2)

Receiver ID	Location	Type of Land Use	Modeled Existing Peak Noise Level, dBA Leq(h)	Modeled 2042 No Build Peak Noise Level, dBA Leq(h)	Modeled 2042 Build Peak Noise Level, dBA Leq(h)
R1	Spring Creek Trailhead	Parks and Recreation	36	36	20
R2	South Yuba Trailhead	Parks and Recreation	40	40	20

Under both Build alternatives, traffic noise would be shifted further away from receivers R1 and R2, lowering the traffic noise level. Therefore, no permanent significant increase in ambient noise levels would occur. Furthermore, as shown in Tables 10 and 11, noise levels under either alternative would not exceed the exterior noise thresholds shown in Table 8. Therefore, impacts to Alternative 1 and Alternative 2 would be **Less than Significant with Mitigation**. The No-Build alternative would result in **No Impact**.

IMPACT NOI-2: Potential to result in generation of excessive groundborne vibration or groundborne noise levels?

Groundborne vibration would increase temporarily during construction activities but would not expose people to such vibration due to the location of the site. Pile driving will potentially occur during construction to install footings of the replacement bridge. The closest sensitive receptors (recreational trails) are located approximately 160 feet west from where pile driving would occur. There are no residents that would be impacted by construction vibration within 500 feet of the construction activity. The vibration would be temporary and intermittent. In addition, measure **NOI-1** below would be implemented to minimize construction-generated vibration; therefore, impacts to Alternative 1 and Alternative 2 would be **Less than Significant with Mitigation**. The No-Build alternative would result in **No Impact**.

IMPACT NOI-3: Potential to be located within or adjacent to an airport land use plan, or where such a plan has not been adopted, or within two miles of a public airport or public use airport?

The project is not located within or adjacent to an airport land use plan, or where such a plan has not been adopted, or within two miles of a public airport or public use airport. Therefore, Alternative 1 and 2 would result in **No Impact**. The No-Build alternative would also result in **No Impact**.

Alternatives Summary

Alternative 1 New Bridge approximately 60 feet upstream

Under Alternative 1, a new, 200-foot bridge would be constructed 60 feet east of the existing bridge, moving traffic noise further away from receivers R1 and R2. Future traffic noise levels under Alternative 1 at receivers R1 and R2 are estimated to decrease by 3 to 4 dBA. No permanent significant increase in ambient noise levels that exceed local standards would occur.

Alternative 2 New Bridge approximately 1,000 feet upstream

Under Alternative 2, a new, 500-foot bridge would be constructed 1,000 feet east of the existing bridge at a higher elevation, moving traffic noise further away from receivers R1 and R2 than Alternative 1. Future traffic noise levels under Alternative 2 at receivers R1 and R2 are estimated to decrease by 14 to 20 dBA. No permanent significant increase in ambient noise levels that exceed local standards would occur.

Alternative 3 No-Build

This alternative would not build a replacement bridge upstream from the existing, structurally deficient bridge. No mitigation measures would be implemented.

3.13.5 Avoidance, Minimization, and/or Mitigation Measures

The minimization and mitigation measure below would be implemented to reduce impacts to a less than significant level for both build alternatives.

NOI-1: To minimize the construction-generated noise, the abatement measures below shall be followed by the construction contractor:

- Construction shall occur only between the hours of 7:00 a.m. to 7:00 p.m. Monday through Friday, or 8:00 a.m. to 6:00 p.m. on Saturdays, and not at any time on Sundays, with the exception that equipment may be operated within the project limits outside of these hours to:
 - Service traffic control facilities
 - Service construction equipment
- Equip an internal combustion engine with the manufacturer recommended muffler.
- Do not operate an internal combustion engine on the job site without the appropriate muffler.

3.14 PUBLIC SERVICES

3.14.1 Regulatory Setting

State Laws and Requirements

California Fire Code

The 2010 California Fire Code (Title 24, Part 9 of the California Code of Regulations) establishes regulations to safeguard against hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises. The Fire Code also establishes requirements intended to provide safety and assistance to firefighters and emergency responders during emergency operations. The provisions of the Fire Code apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure throughout the State of California (CBSC 2011). The Fire Code includes regulations regarding fire-resistance-rated construction, fire protection systems such as alarm and sprinkler systems, fire services features such as fire apparatus access roads, means of egress, fire safety during construction and demolition, and wildland-urban interface areas. Nevada County has adopted the California Fire Code.

California Health and Safety Code

Additional state fire regulations are set forth in Section 13000 et seq. of the California Health and Safety Code. They include regulations for building standards as set forth in the California Building Code, fire protection and notification systems, fire protection devices such as extinguishers, smoke alarms, high-rise buildings, childcare facility standards, and fire suppression training.

Local Laws and Requirements

Nevada County General Plan

The Nevada County General Plan Chapter 10 – Safety contains goals, objectives, and policies related to Public Services. The following goals are applicable to Public Services:

- Goal EP-10.1, *Provide a coordinated approach to hazard and disaster response preparedness.*
- Goal SF-10.6, *Ensure adequate public safety services and facilities through development standards, development fees, and land use patterns.*
- Goal FP-10.7, *Enhance fires safety and improve fire protection effectiveness through infrastructure and service improvements.*
- Goal FP-10.8, *Reduce fire risk to life and property through land use planning, ordinances, and compliance programs.*

3.14.2 Environmental Setting and Existing Conditions

Fire

The Nevada County Consolidated Fire District provides fire protection services to the project area. The project would be served by the headquarters at 640 Coyote Street, Nevada City CA. Fire stations are located so as to provide maximum effect service.

Police

The Nevada County Sheriff's Office provides police protection service for the project area. It is located at 950 Maidu Avenue, Nevada City CA.

School District

There are no schools near the project area. The nearest school is located in Nevada City CA.

3.14.3 Thresholds of Significance

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:

- a) Fire protection?*
- b) Police protection?*
- c) Schools?*
- d) Parks?*
- e) Other public facilities?*

3.14.4 Environmental Impacts

IMPACT PS-1: Potential to result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

- **Fire protection;**
- **Police protection;**
- **Schools;**
- **Parks; or**
- **Other public facilities**

The project would not result in the need for new public services beyond what was anticipated in the County General Plan. The project does not propose new housing or commercial development requiring additional school facilities, police, and/or fire services. The proposed project aims to improve driver safety and emergency service response times in the area by improving accessibility for emergency services.

The existing police and fire stations have a capacity to serve any project-related needs that may arise. Short-term traffic operations in the project area would be temporarily affected during construction of the proposed bridge. Short-term construction impacts to traffic operations are anticipated to be minimal. Emergency service vehicles would be allowed to use the roadway and the load limited bridge at all times for both alternatives. Temporary impacts to traffic flow as a result of construction activities would be minimized through construction phasing and signage and a traffic control plan (see Section 3.16). Alternative 1 would result in a **Potentially Significant Impact** due to the hairpin turn still existing and preventing emergency vehicles from accessing the public. Impacts related to Alternative 2 construction would be **Less than Significant with Mitigation**. The current bridge is a significant hazard to emergency response time and access if the proposed bridge is not constructed. Therefore, the No-Build alternative would result in a **Potentially Significant Impact**.

Alternatives Summary

Alternative 1 New Bridge approximately 60 feet upstream

Under Alternative 1, emergency vehicle access would remain limited, and there would be a potentially significant impact due to the hairpin turn still existing and preventing emergency vehicles from accessing the public.

Alternative 2 New Bridge approximately 1,000 feet upstream

Under Alternative 2, emergency vehicle access would improve, and there would be no additional public services needed beyond what was previously anticipated in the County General Plan.

Alternative 3 No-Build

This alternative would not build a replacement bridge adjacent to the existing, structurally deficient bridge. No mitigation measures would be implemented. The current bridge is a significant hazard to emergency response time and access, if the proposed bridge is not constructed. There are no feasible mitigation measures that would reduce impacts. Therefore, the No-Build alternative would result in a Potentially Significant Impact.

3.14.5 Avoidance, Minimization, and/or Mitigation Measures

Both build alternatives would have Less than Significant Impact with Mitigation to public services during construction due to the implementation of Transportation/Traffic measure **TRA-1**. However, Alternative 1 would still result in a potentially significant impact after construction due to the hairpin turn.

3.15 RECREATION

This section describes the existing conditions for recreation facilities in the study area. It also describes impacts on recreation facilities that would result from implementation of the proposed project.

3.15.1 Regulatory Setting

Local Laws and Requirements

Nevada County General Plan

The Recreation Element of the County General Plan outlines the recreational opportunities that are present within the County. These opportunities range from public parks with recreational facilities to tracts of forest lands. The Recreation Element policy section contains goals, objectives, and policies that address conservation and promotion of natural resources for recreation and other purposes. Some of these goals, objectives and policies are applicable to recreation resources that are within and near the project site. The following goal is applicable to Recreation:

- Goal 5.1, *Provide a variety of active and passive recreational opportunities.*

3.15.2 Environmental Setting and Existing Conditions

The project has the potential to result in a use of three Section 4(f) Properties. These Section 4(f) properties are the Edwards Crossing Bridge, a historic property, eligible for listing in the NRHP; the South Yuba River, a California Wild and Scenic River; and the South Yuba River Trail – Edwards Crossing to Purdon Crossing and associated offshoot trails.

Edwards Crossing Bridge

Officially named the North Bloomfield-Graniteville Road Bridge over the South Yuba River, the Edwards Crossing Bridge (#17C-0006) is a 168-foot-long slender steel truss, three-hinged arch bridge with timber decking constructed in 1904. The bridge was built by the American Bridge Company. The bridge replaced a toll bridge over the South Yuba River at Robinson's Upper Crossing that was constructed in 1855.

The existing bridge is considered by Caltrans to be a Category 2 historic bridge, meaning it has previously been determined eligible for listing on the NRHP. The bridge provides access to North Bloomfield and numerous gold mines, including the historic Malakoff Diggings, a large hydraulic gold mining operation.

The bridge and the road were purchased by William Edwards in 1861 and was eventually deeded to Nevada County by Mr. Edwards. The bridge is eligible for inclusion on the NRHP based on Criterion C for its significance of bridge technology in California and is a rare, surviving example of a three-hinge, steel arch bridge. Since the Edwards Crossing Bridge is eligible for inclusion in the NRHP, it is considered a Section 4(f) resource.

Nevada County owns the bridge and North Bloomfield-Graniteville Road, but the surrounding land is owned by BLM.

South Yuba River

The South Yuba River is designated as a California Wild and Scenic River between Lang Crossing (just downstream of Lake Spaulding) and where it meets the main branch of the Yuba River. The river is a popular recreational destination for kayakers and swimmers. The area underneath the Edwards Crossing Bridge is a popular swimming hole during the summer months. While not located within the South Yuba

River State Park (SYRSP), they are the managing agency for the river. As this property is a public recreational facility, it is considered a Section 4(f) property.

South Yuba River Trail – Edwards Crossing to Purdon Crossing Trailhead

The South Yuba River Trail is an approximately 20-mile long trail that begins near the town of Washington, CA and continues along the north bank of the South Yuba River until Edwards Crossing, where it crosses over the bridge and continues along the south bank of the river until Purdon Crossing. The section of the trail between Edwards Crossing and Purdon Crossing is a popular hiking trail as it is a short 5-mile section with parking facilities on both ends. The trailhead for this section of the trail is on the southside of the Edwards Crossing Bridge and provides toilet facilities. This trailhead also serves as parking and access to other shorter trails in the vicinity of the bridge. As this property is a public recreational facility managed by BLM in this area, it is considered a Section 4(f) property.

3.15.3 Thresholds of Significance

Would the Project:

- a) *Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*
- 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?*

3.15.4 Environmental Impacts

IMPACT REC-1: Potential to increase the use of existing parks or other recreational facilities?

The project would not increase the use of existing parks or other recreational facilities due to the location and nature of the project. Since the project involves constructing a new bridge, the existing bridge would not be used as the primary function for vehicle access. The existing bridge would still be accessible for pedestrians that are using the trails in the area, on either side of the river. Therefore, impacts would be **Less than Significant**. The No-Build alternative would result in **No Impact**.

IMPACT REC-2: Potential to require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The project does not include other recreational facilities, nor does it require the construction or expansion of other recreational facilities. The project would allow the existing Edwards Crossing bridge to remain in use for pedestrian access to recreational areas along the South Yuba River. Therefore, Alternative 1 and 2 would result in No Impact. The No-Build alternative would also result in **No Impact**.

Alternatives Summary

Alternative 1 New Bridge approximately 60 feet upstream

Alternative 1 would result in expansion of parking on the north side of the existing bridge, which may slightly increase the number of visitors at nearby recreational sites at any given time. However, this is unlikely to result in a significant increase or acceleration of physical deterioration of the South Yuba River or any associated trails. Traffic and recreation would be closed during construction of Alternative 1, with the exception of access for emergency vehicles. Impacts would be Less than Significant.

Alternative 2 New Bridge approximately 1,000 feet upstream

Under Alternative 2, a temporary access road will be required on the north side of the canyon and a temporary trestle across the river is planned to get materials and equipment across the river for construction of the arch foundation at Pier 2. The temporary access road restoration will be left as a trail for walking/hiking purposes. The temporary access road restoration would not result in significant impacts. The project does not include other recreational facilities, nor does it require the construction or expansion of other recreational facilities.

Alternative 3 No-Build

This alternative would not build a replacement bridge adjacent to the existing, structurally deficient bridge. No mitigation measures would be implemented. The area receives a high amount of recreational visitors who utilize the one-lane bridge as a pedestrian route while also being utilized for vehicular traffic. This conflict would persist under the no-build alternative.

3.15.5 Avoidance, Minimization, and/or Mitigation Measures

The project would have a **Less than Significant Impact** on recreation and would not conflict with federal, state, or local plans. Therefore, no mitigation measures are required.

3.16 TRANSPORTATION/TRAFFIC

3.16.1 Regulatory Setting

State Laws and Requirements

The project requires two 10-foot lanes plus shoulders to comply with current fire standards (CA Board of Forestry and Fire Protection 2020).

Local Laws and Requirements

The Nevada County Land Use and Development Code Chapter XVII, Article 3.0, includes standards for the design of roads that represent the minimum values or the lowest acceptable limit in design of roads. These standards apply to both public and private construction.

Nevada County General Plan

The Circulation Element of the County General Plan (Nevada County 1996) includes the following applicable goals regarding Transportation and Traffic.

- Goal LU-4.1, *Coordinate existing and future circulation systems with existing and future land use patterns.*
- Goal LU-4.2, *In rural regions, establish and maintain a desired level of service that supports sustainable growth and development.*
- Goal LU-4.4, *Maintain desired levels of service by balancing development of the circulation system with land use and development in the County.*
- Goal LU-4.5, *Provide for long-term, ongoing roadway maintenance.*
- Goal LU-4.6, *Ensure that the transportation system serving regional destination maintains desired levels of service consistent with existing and future land use patterns.*
- Goal LU-4.7, *Provide local and regional road and street systems that are consistent and compatible with local land use patterns and street networks.*
- Goal MV-4.1, *Provide for the safe and efficient movement of people and goods in a manner that respects the rural character of Nevada County.*
- Goal MV-4.2, *Provide for a transportation system design that facilitates the transportation of people, goods and services in support of the General plan and the local economy.*
- Goal MV-4.3, *Provide for alternative routes fore efficient service and for emergency access.*
- Goal EP-4.1, *Minimize adverse impacts of the circulation system on the natural and historic environment.*
- Goal EP-4.2, *Protect the natural environment in development and maintenance of the transportation system.*
- Goal EP-4.3, *To the extent feasible, encourage the reduction of Greenhouse Gas emissions during the design phase of construction projects.*
- Goal EP-4.4, *To the extent feasible, encourage the development of energy efficient circulation patterns.*

Should reference BOD Min Fire Safe Stds & County Road Standards

3.16.2 Environmental Setting and Existing Conditions

North Bloomfield-Graniteville Road is classified as a Minor Collector in Nevada County that starts at State Highway 49 and travels northeast from Edwards Crossing Bridge up to and past Malakoff Diggins State

Historic Park. The road is narrow and winding throughout and is paved from Highway 49 up to the Edwards Crossing Bridge where it becomes unpaved and wider past the bridge. N. Bloomfield Road is used by local residents who live along the road and north of the South Yuba River along with large populations who visit the South Yuba River where the road crosses it. The road is also used by other recreational users to visit Malakoff Diggins State Park, the South Yuba Campground, and other trails and campsites in the vicinity.

3.16.3 Thresholds of Significance

Would the Project:

- a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?
- b) Would the Project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?
- c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
- d) Result in inadequate emergency access?

3.16.4 Environmental Impacts

Table 12 below provides a summary of how traffic will be handled during construction across both alternatives.

Table 12. Traffic Handling During Construction

Consideration	Alt 1	Alt 2
Emergency Vehicles	Allowed to use the roadway and the load limited bridge at all times	Same for both alternatives
During Work Shifts – some periods of closures noted at right. Flaggers during remaining work times, expect 20+ min delay.	Closed for both Abutments Construction (16 wks) Closed for Falsework Delivery, Erection, and Removal. Closed for Concrete Pours (8 times)	<u>South Side Closures:</u> Closed for Cut Excavation, south side approach construction <u>North Side Closures:</u> Closed for Abutment 4 construction Closed for Concrete Pours (16 times) Closed for Falsework Materials Delivery and Removal Closed for precast girder delivery and erection
After Work Shifts & Weekends	Site passable by traffic, lanes and lane width restricted.	Same for both alternatives
Roads – traffic impacted by Workers, Equip and Materials	Public will be impacted by daily delivery of these materials	Same for both alternatives
Road Maintenance on N. Bloomfield and Grizzly Hill Road	Material and equipment primarily delivered to site via SR-49 / Tyler Foote / Grizzly Hill	Same for both alternatives

	Road maintenance required throughout construction, as project will impact roadways – primarily non-paved roadways.	
Heavy Equipment Delivery nearly all via 49/Tyler/Grizzly Hill	Temporary Road Closures necessary.	Temporary Road Closures necessary. Will need some equipment delivered over N. Bloomfield Road from Nevada City for work at Alt 2, Abut 1 and approach

IMPACT TRA-1: Potential to conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

The existing Edwards Crossing Bridge is structurally deficient. The proposed replacement bridge would result in a safer bridge suitable for emergency access that is consistent with the goals, policies, and performance standards of the Nevada County General Plan Circulation Element. Alternative 1 would result in a **Potentially Significant Impact** due to the hairpin turn still existing and preventing emergency vehicles from accessing the public. Impacts related to Alternative 2 would be **Less than Significant**. The No-Build alternative would result in **No Impact**.

IMPACT TRA-2: Potential to have a Less than Significant Impact as recommended under section 15064.3(b) guidelines?

The existing Edwards Crossing bridge is a two-way, one lane bridge. The replacement bridge would provide sufficient width for two lanes, one in each direction. This widening would not be considered capacity-increasing, and thus the project is presumed to have a **Less than Significant Impact** as recommended under section 15064.3(b) guidelines. The No-Build alternative would result in **No Impact**.

IMPACT TRA-3: Potential to reduce hazards due to a geometric design feature?

The project will change the approach on both sides of the bridge thus eliminating two sharp turns that are currently present on the existing one-lane bridge. Alternative 1 would result in a **Potentially Significant Impact** due to the hairpin turn still existing and preventing emergency vehicles from accessing the public. Impacts related to Alternative 2 construction would be **Less than Significant with Mitigation** due to the implementation of Mitigation Measure **TRA-1**. The current bridge is a significant hazard to emergency response time and access if the proposed bridge is not constructed. Therefore, the No-Build alternative would result in a **Potentially Significant Impact**.

IMPACT TRA-4: Potential to provide a more direct route across the South Yuba River, improving emergency access?

The project would have no effect on emergency access during project construction since the existing bridge would remain open until the new bridge is complete. Mitigation Measure **TRA-1** would be implemented to reduce temporary impacts to a less than significant level. The project will have a beneficial impact on emergency access during the operational phase as the new two-lane bridge will be able to accommodate two-way traffic during an emergency or evacuation situation. However, Alternative 1 would result in a **Potentially Significant Impact** due to the hairpin turn still existing and preventing emergency vehicles from accessing the public. Impacts related to Alternative 2 construction would be **Less**

than Significant with Mitigation due to the implementation of Mitigation Measure **TRA-1**. The current bridge is a significant hazard to emergency response time and access if the proposed bridge is not constructed. Therefore, the No-Build alternative would result in a **Potentially Significant Impact**.

Alternatives Summary

Alternative 1 New Bridge approximately 60 feet upstream

This bridge would be constructed at a similar elevation as the existing bridge, which would not eliminate the steep hairpin turn on N. Bloomfield Road. The hairpin turn is a major barrier to fire and emergency equipment and services crossing the river. While the new bridge would meet AASHTO guidelines and the bridge would have sufficient capacity for fire and emergency equipment, access challenges would remain due to the hairpin turn.

Alternative 2 New Bridge approximately 1,000 feet upstream

The south abutment of this bridge would be constructed near the apex of the hairpin turn. This roadway approach would eliminate the hairpin turn and provide access for fire and emergency equipment to cross the river. This bridge would also provide a viable evacuation route for residents north of the South Yuba River during an emergency.

Alternative 3 No-Build

This alternative would not build a replacement bridge adjacent to the existing, structurally deficient bridge. No mitigation measures would be implemented. The current bridge is a significant hazard to emergency response time and access, if the proposed bridge is not constructed. There are no feasible mitigation measures that would reduce impacts. Therefore, the No-Build alternative would result in a Potentially Significant Impact.

3.16.5 Avoidance, Minimization, and/or Mitigation Measures

The minimization and mitigation measure below would be implemented to reduce impacts to a less than significant level for both build alternatives during construction. Alternative 1 would still result in a potentially significant impact after construction due to the hairpin turn.

TRA-1: Temporary impacts to traffic flow as a result of construction activities would be minimized through construction phasing, signage and a traffic control plan.

3.17 TRIBAL CULTURAL RESOURCES

3.17.1 Regulatory Setting

Federal Laws and Requirements

National Historic Preservation Act Section 106

Section 106 of the National Historic Preservation Act (NHPA) of 1966 requires Federal agencies to take into account the effects of their undertakings on historic properties and to provide the Advisory Council on Historic Preservation (ACHP) with a reasonable opportunity to comment. In addition, Federal agencies are required to consult on the Section 106 process with SHPO, Tribal Historic Preservation Offices (THPO), Indian Tribes (to include Alaska Natives) [Tribes], and Native Hawaiian Organizations (NHO).

Section 106 Programmatic Agreement

Pursuant to the X.B.1 of the January 2014 First Amended Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act (Section 106 PA), as well as under Public Resources Code 5024 and pursuant to the January 2015 Memorandum of Understanding Between the California Department of Transportation and the California State Historic Preservation Office Regarding Compliance with Public Resources Code Section 5024 and Governor's Executive Order W-26-92 (5024 MOU), the Caltrans District may make a finding of "No Adverse Effect with Standard Conditions" when standard conditions that will avoid adverse effects to historic properties are imposed in accordance with Attachment 5 of the Section 106 PA. The Caltrans District shall submit its finding and supporting documentation to the Caltrans Cultural Services Office (CSO) for review. Should CSO approve the finding, the undertaking shall not be subject to further review under the Section 106 PA.

National Register Criteria for Evaluation of Historic Resources

Criteria for Evaluation

The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- A. That are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. That are associated with the lives of significant persons in our past; or
- C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. That have yielded or may be likely to yield, information important in history or prehistory.

Criteria Considerations

Ordinarily cemeteries, birthplaces, graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register.

However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

- H. A religious property deriving primary significance from architectural or artistic distinction or historical importance; or
- I. A building or structure removed from its original location, but which is primarily significant for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or
- J. A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building associated with his or her productive life; or
- K. A cemetery that derives its primary importance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or
- L. A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or
- M. A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own exceptional significance; or
- N. A property achieving significance within the past 50 years if it is of exceptional importance.

State Laws and Requirements

California Environmental Quality Act (CEQA)

CEQA consists of statutory provisions in the PRC and Guidelines promulgated by the Office of Planning and Research. The CEQA requires public agencies to evaluate the implications of their Project(s) on the environment and includes significant historical resources as part of the environment. A Project that causes a substantial adverse change in the significance of an historical resource has a significant effect on the environment CCR 14 Section 15064.5; California PRC Section 21098.1). CEQA defines a substantial adverse change as follows.

- Physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired (CCR 14 Section 15064.5[b][1]).

The CEQA Guidelines provide that the significance of an historical resource is materially impaired when a Project results in the following:

- Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources (CRHR); or
- Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to PRC Section 5020.1(k) or its identification in an historical resources survey meeting the requirements of PRC Section 5024.1(g), unless the public agency reviewing the effects of the Project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

- Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the CRHR as determined by a Lead Agency for purposes of CEQA (CCR 14 Section 15064.5[b][2]).

California Register of Historical Resources: Public Resources Code Section 5024

The term historical resource includes, but is not limited to, any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of PRC (PRC Section 5020.1[j]).

Historical resources may be designated as such through three different processes:

8. Official designation or recognition by a local government pursuant to local ordinance or resolution (PRC Section 5020.1[k]);
9. A local survey conducted pursuant to PRC Section 5024.1(g); or
10. The property is listed in or eligible for listing in the NRHP (PRC Section 5024.1[d][1]).

The process for identifying historical resources is typically accomplished by applying the criteria for listing in the CRHR, which states that a historical resource must be significant at the local, state, or national level under one or more of the following four criteria.

It is associated with events that have made a significant contribution to the broad patterns of:

11. California’s history and cultural heritage;
12. It is associated with the lives of persons important in our past;
13. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or
14. It has yielded, or may be likely to yield, information important in prehistory or history. (CCR 14 Section 4852).

To be considered a historical resource under the CEQA, the resource must also have integrity, which is the authenticity of a resource’s physical identity evidenced by the survival of characteristics that existed during the resource’s period of significance. Resources, therefore, must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association. It must also be judged with reference to the criteria under which a resource is eligible for listing in the CRHR (CCR 14 Section 4852[c]).

Assembly Bill 52 (Public Resources Code Section 21084.2)

Effective July 1, 2015, CEQA was revised to include early consultation with California Native American tribes and consideration of TCRs. These changes were enacted through AB 52. By including TCRs early in the CEQA process, AB 52 intends to ensure that local and Tribal governments, public agencies, and Project proponents would have information available, early in the Project planning process, to identify and address potential adverse impacts to TCRs. The CEQA now establishes that a “Project with an effect that may cause a substantial adverse change in the significance of a TCR is a Project that may have a significant effect on the environment” (PRC § 21084.2).

To help determine whether a Project may have such an adverse effect, the PRC requires a lead agency to consult with any California Native American tribe that requests consultation and is traditionally and

culturally affiliated with the geographic area of a proposed Project. The consultation must take place prior to the determination of whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a Project (PRC § 21080.3.1). Consultation must consist of the lead agency providing formal notification, in writing, to the tribes that have requested notification or proposed Projects within their traditionally and culturally affiliated area. AB 52 stipulates that the NAHC shall assist the lead agency in identifying the California Native American tribes that are traditionally and culturally affiliated within the Project area. If the tribe wishes to engage in consultation on the Project, the tribe must respond to the lead agency within 30 days of receipt of the formal notification. Once the lead agency receives the tribe's request to consult, the lead agency must then begin the consultation process within 30 days. If a lead agency determines that a Project may cause a substantial adverse change to TCRs, the lead agency must consider measures to mitigate that impact.

Consultation concludes when either: 1) the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a TCR, or 2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached (PRC § 21080.3.2). Under existing law, environmental documents must not include information about the locations of an archaeological site or sacred lands or any other information that is exempt from public disclosure pursuant to the Public Records act. TCRs are also exempt from disclosure. The term "tribal cultural resource" refers to either of the following:

Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

- Included or determined to be eligible for inclusion in the California Register of Historical Resources
- Included in a local register of historical resources as defined in subdivision (k) of California PRC Section 5020.1
- A resource determined by a California lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of the PRC Section 5024.1.

Discovery of Human Remains

Section 7050.5 of the California Health and Safety Code (CHSC) states the following regarding the discovery of human remains:

- E. Every person who knowingly mutilates or disinters, wantonly disturbs, or willfully removes any human remains in or from any location other than a dedicated cemetery without authority of law is guilty of a misdemeanor, except as provided in Section 5097.99 of the [PRC]. The provisions of this subdivision shall not apply to any person carrying out an agreement developed pursuant to subdivision (l) of Section 5097.94 of the [PRC] or to any person authorized to implement Section 5097.98 of the [PRC].
- F. In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the California Government Code [CGC], that the remains are not subject to the provisions of Section 27491 of the CGC or any other related provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have

been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the PRC. The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains.

- G. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes the human remains to be those of a Native American or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the NAHC (CHSC Section 7050.5).
- H. Of particular note to cultural resources is subsection (c), which requires the coroner to contact the NAHC within 24 hours if discovered human remains are determined to be Native American in origin. After notification, NAHC will follow the procedures outlined in PRC Section 5097.98, which include notification of most likely descendants (MLDs), if possible, and recommendations for treatment of the remains. The MLD will have 24 hours after notification by the NAHC to make their recommendation (PRC Section 5097.98). In addition, knowing or willful possession of Native American human remains or artifacts taken from a grave or cairn is a felony under State law (PRC Section 5097.99).

Local Laws and Requirements

Nevada County General Plan

The Cultural Resources Element of the County General Plan includes the following applicable goals, objectives, and policies regarding air quality.

- Goal 19.1, *Identify and protect and where economically feasible restore significant archaeological and historic resources.*
 - Objective 19.1, *Encourage the inventory, protection, and interpretation of the cultural heritage of Nevada County, including historical and archaeological landscapes, sites, buildings, features, artifacts.*
 - Objective 19.2, *Implement development standards, including the preservation of open space, to protect identified significant cultural sites.*
 - Objective 19.3, *Include in the development review process consideration of historic, cultural, and Native American concerns and values.*

3.17.2 Environmental Setting and Existing Conditions

The horizontal Area of Potential Effects was established as the area of direct and indirect effects in both Alternative 1 and Alternative 2 and consists of an approximately 20-acre area. This includes all staging areas, temporary vehicle access, vegetation/tree removal, approach roadway realignment, bridge replacement, grading activities. The APE extends approximately 1,500 feet along North Bloomfield-Graniteville Road from both sides of the existing bridge and approximately 1,200 feet east of the existing bridge and approximately 1,000 feet from the northern to southern extent of the APE boundary.

The vertical APE consists of a maximum of 8 feet of depth from the existing ground surface to below ground surface to accommodate earthwork for the construction of bridge abutments and up to 50 feet to accommodate new permanent roadway changes. The minimum depth of ground disturbance is

approximately 5 feet below ground surface (bgs), required for all roadway approach realignment work, vegetation removal, and fill compaction. The project does not involve relocation of any buried utilities.

Records Search

Dokken Engineering obtained a record search for the project area and a one-mile radius surrounding the project area from the North Central Information Center, California State University, Sacramento on January 23, 2020. The record search was conducted by personnel from the Information Center. The search examined the OHP Historic Properties Directory, OHP Determinations of Eligibility, and *California Inventory of Historical Resources*.

The record search disclosed 28 NCIC resources within the one-mile record search boundary. Two of these resources are located within the APE including the Edwards Crossing Bridge (Bridge #17C-0006 [P-29-0814]) at South Yuba River. The Edwards Crossing Bridge is classified as Category 1, eligible for listing on the NRHP – on the Caltrans Historic Bridge Inventory. One other resource is located within the APE, the North Broomfield Road (P-29-2436).

Native American Outreach (AB52)

Native American Consultation has taken place during two different time periods. Initial consultation occurred in 2020 and additional consultation occurred in 2022. Both consultations are described below and discussed by year conducted.

2020 Native American Consultation

On January 15, 2020, Dokken Engineering sent a letter and a map depicting the project vicinity to the NAHC, asking the NAHC to review the SLF for any Native American cultural resources that might be affected by the project. A list of Native American individuals who might have information or concerns about the project was also requested. On January 21, 2020, Nancy Gonzalez-Lopez, Cultural Resource Analyst, informed Dokken Engineering via fax that a review of the SLF failed to indicate the presence of Native American cultural resources in the “immediate project area.” The 2020 contact list also only contained a single contact, Darrel Cruz, THPO of the Washoe Tribe of Nevada and California, who had previously stated that the Washoe Tribe of Nevada and California territory does not extend below the altitude of 5,000 feet.

On May 5, 2020, an initial consultation letter was sent to the Native American individual on the list provided by the NAHC. The letter provided a summary of the project and requested information regarding comments or concerns the Native American community might have about the project. No response was received from this letter and a follow-up email was sent February 10, 2021. The following summarizes the 2020 consultation efforts.

Darrel Cruz, Tribal Historic Preservation Officer, Washoe Tribe of Nevada and California. No response to initial letter. A follow-up email was sent on February 10, 2021.

2022 Native American Consultation

In April 2022, it was determined that a new contact list from the NAHC was needed. The list was obtained on June 28, 2022 and letters were sent on September 26, 2022. The following summarizes the 2022 consultation efforts:

Grayson Coney, Cultural Director, T’si-Akim Maidu Tribe. No response to initial letter. A follow-up email occurred on January 11, 2023 and again on March 7, 2023. No response has been received to date.

Don Ryberg, Chairperson, T'si-Akim Maidu Tribe. No response to initial letter. A follow-up email occurred on January 11, 2023 and again on March 7, 2023. No response has been received to date.

Gene Whitehouse, Chairperson, UAIC, Tribal Historic Preservation Department. An email was received on October 6, 2022 from Anna Starkey, Cultural Regulatory Specialist, stating that the Tribe would like to consult and also requesting cultural reports and photos of the APE. Project information, including site photos, were sent to Ms. Starkey on October 7, 2022. She was also informed that cultural reports were being drafted with Caltrans.

Darrel Cruz, THPO, Washoe Tribe of Nevada and California. No response to initial letter. A follow-up email occurred on January 11, 2023. An email was received on January 18, 2023 from Bernadette Nieto, Tribal Administrator, stating that the Tribe did not have any recommendations for the project but requested that a monitor be present during ground disturbance. Additionally, she stated that it is the Tribe's preference that if artifacts are found they remain protected in place.

Serrell Smokey, Chairperson, Washoe Tribe of Nevada and California. No response to initial letter. A follow-up email occurred on January 11, 2023. See consultation for Mr. Cruz above.

Dahlton Brown, Director of Administration, Wilton Rancheria. No response to initial letter. A follow-up email occurred on January 11, 2023 and again on March 7, 2023. No response has been received to date.

Jesus Tarango, Chairperson, Wilton Rancheria. No response to initial letter. A follow-up email occurred on January 11, 2023 and again on March 7, 2023. No response has been received to date.

Steven Hutchason, THPO, Wilton Rancheria. No response to initial letter. A follow-up email occurred on January 11, 2023 and again on March 7, 2023. No response has been received to date.

Pamela Cubbler, Colfax-Todds Valley Consolidated Tribe. No response to initial letter. A follow-up email occurred on January 11, 2023. A response was received from Ms. Cubbler on January 12, 2023 stating that the Tribe had concerns regarding the project and wished to consult. A phone conversation occurred with Ms. Cubbler on February 15, 2023, in which she requested additional information. Site photographs and maps were emailed on February 15, 2023. Another phone conversation occurred with Ms. Cubbler on March 7, 2023, in which she reviewed the submitted photos and stated that the Tribe would not request formal consultation but requested notification in case of late discovery.

Clyde Prout, Chairperson, Colfax-Todds Valley Consolidated Tribe. No response to initial letter. A follow-up email occurred on January 11, 2023. See consultation with Ms. Cubbler above.

Richard Johnson, Chairman, Nevada City Rancheria Nisenan Tribe. No response to initial letter. A follow-up email occurred on January 11, 2023 and again on March 7, 2023. No response has been received to date.

Field Methods

On November 4, 2020, the entire project area was subjected to an intensive pedestrian survey under the guidance of the Secretary of the Interiors Standard's for the Identification of Historic Properties by Michelle Campbell and Namat Hosseinion. The pedestrian survey was conducted at roughly 5-meter transect intervals paralleling the roadway where conditions allowed. All Project area field conditions and cultural resources were fully recorded in the field notes. Coverage varied in areas with vegetation coverage.

During survey, exposed subsurface cuts, such as those within the South Yuba River, roadway cuts, and bank cuts were examined for indications of surface or subsurface cultural resources, soil color change, and/or staining that could indicate past human activity or buried deposits.

Results

The pedestrian survey identified (although noted in 2000 by BLM) five previously unrecorded dry-stack historic-era retaining walls in the APE, as well as the Category 1 Edwards Crossing Bridge (Bridge #17C-0006 [P-29-0814]). The retaining walls are located south of the existing bridge, downslope (north) of the parking area, approximately 250 feet east of the bridge. The walls are made of mostly flat and angular, locally sourced cobble to boulder size rocks and they vary from two to four courses high. A trail that leads to the river winds through portions of the retaining walls. One of the retaining walls runs north to south and the other four walls run east to west, with the lower most one abutting the longer, north to south one, creating an "L" shape. There is an area of tumbled rocks that measures approximately 36 feet by approximately 28 feet along the southern upslope edge of the southernmost wall.

No evidence of the tollhouse or residence seen in the illustration for the 1880 History of Nevada County was discovered. The 2001 BLM monitoring report states that a burned debris deposit containing both 19th and 20th century artifacts was noted at the vault toilet location at 4-feet below the current roadway surface below roadway fill placed during an earlier phase of roadway construction. The 1904 bridge and roadway reconstruction and the later creation of the recreational parking area likely destroyed any evidence of the residence, tollhouse and other structures or features that potentially existed in that area.

The average surface visibility of the study area was 70 percent, except for paved and gravel road surfaces which exhibited no visible ground surface. Visibility was obscured in some areas by growth of trees, poison oak, and blackberries, primarily along the creek bed. Inspection of open surfaces, visible cut slopes, and stream cut banks during the field survey revealed no evidence of subsurface artifacts, features, or other indicators of past human use (such as soil change).

The potential for buried archaeological sites was addressed by visual inspections of creek banks, road cuts and geotechnical investigations. Some areas along the roadside have exposed bedrock or large boulders partially exposed on the ground surface. No indications of buried archaeological deposits, artifacts, soil staining, the presence of organic soils or anthrosoils were identified during the archaeological survey.

3.17.3 Thresholds of Significance

- a) *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*
- b) *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.*

3.17.4 Environmental Impacts

IMPACT TCR-1: Potential to be 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)?

The Project is not anticipated to cause a substantial adverse change in the significance of a TCR listed or eligible for listing in the California Register of Historical Resources, or in a local register of historic resources as defined in Public Resources Code section 5020.1(k). No indigenous cultural resources were identified during the visual survey, the record search, or by the Native American tribal governments during consultation. No impacts are anticipated for the Project related to indigenous cultural resources; however, with any Project requiring ground disturbance, there is always the possibility that previously unknown indigenous cultural resources may be unearthed during grading or other ground disturbing activities. Implementation of Avoidance and Minimization Measures **CR-3** through **CR-5** would ensure there would be **No Impact** to TCRs as a result of Project implementation. The No-Build alternative would result in **No Impact**.

IMPACT TCR-2: Potential to affect 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?

The Project is not anticipated to cause a substantial adverse change to a TCR pursuant to criteria set forth in subdivision (c) of Public Resources Cod Section 5024.1. No indigenous cultural resources were identified during the visual survey, record search, or by the Native American tribal governments. No impacts are anticipated for the Project related to indigenous cultural resources; however, with any Project requiring grading or other ground disturbing activities, there is always the possibility that previously unknown indigenous cultural resources may be unearthed during construction. Mitigation Measures **CR-3** through **CR-5** would be implemented to reduce impacts to less than significant levels. Impacts related to both Alternative 1 and 2 would be **Less than Significant with Mitigation**. The No-Build alternative would result in **No Impact**.

Alternatives Summary

Alternative 1 New Bridge approximately 60 feet upstream

The Project is not anticipated to cause a substantial adverse change in the significance of a TCR listed or eligible for listing in the California Register of Historical Resources, or in a local register of historic resources as defined in Public Resources Code section 5020.1(k). No impacts are anticipated for the Project related to indigenous cultural resources. With the possibility that previously unknown indigenous cultural resources may be unearthed during grading or other ground disturbing activities, implementation of Avoidance and Minimization Measures would ensure there would be no adverse effect.

Alternative 2 New Bridge approximately 1,000 feet upstream

The Project is not anticipated to cause a substantial adverse change in the significance of a TCR listed or eligible for listing in the California Register of Historical Resources, or in a local register of historic resources as defined in Public Resources Code section 5020.1(k). No impacts are anticipated for the Project related to indigenous cultural resources. With the possibility that previously unknown indigenous cultural resources may be unearthed during grading or other ground disturbing activities, implementation of Avoidance and Minimization Measures would ensure there would be no adverse effect.

Alternative 3 No-Build

No mitigation measures would be implemented under this alternative since the project would not occur.

3.17.5 Avoidance, Minimization, and/or Mitigation Measures

The minimization and mitigation measures would be implemented to reduce impacts to a less than significant level for both build alternatives.

CR-3: An archaeologist meeting the Secretary of the Interior's Professional Qualification Standards in Archaeology shall conduct archaeological monitoring during geotechnical and initial construction grading activities.

CR-4: In the event that buried archaeological materials are encountered during construction, the course of action followed will be that stated in Stipulation XV. Post Review Discoveries, Section B.1-3 of the PA. Should the archaeological discovery include Native American resources, the consulting Tribes shall be contacted, to assist in the significance assessment and treatment recommendations.

It is BLM's policy to protect and preserve archaeological resources and historic properties. If inadvertent discoveries are unearthed during this undertaken on lands managed by the BLM, operations are to cease immediately and the BLM archaeologist is to be contacted. Following an evaluation, consultation (if needed), and protection measures (if needed), project work may proceed.

CR-5: If human remains are encountered, State Health and Safety Code Section 7050.5 dictates that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner will notify the NAHC, which will determine and notify a MLD. With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

Should inadvertent discovery of human remains and objects subject, or potentially subject, to Native American Graves Protection and Repatriation Act (NAGPRA) as defined in 43 CFR 10.2 (d), be located on land managed by the BLM, the discovery will be handled by the BLM under the Archaeological Resources Protection Act regulation at 43 Code of Federal Regulations (CFR) 7 and NAGPRA regulations at 43 CFR 10 as well as related BLM policy.

3.18 UTILITIES AND SERVICE SYSTEMS

3.18.1 Environmental Setting and Existing Conditions

N. Bloomfield Road is classified as a Minor Collector in Nevada County that starts at State Highway 49 and travels northeast from Edwards Crossing Bridge up to and past Malakoff Diggins State Historic Park. The road is narrow and winding throughout and is paved from Highway 49 up to the Edwards Crossing Bridge where it becomes unpaved past the bridge. There are currently some overhead telecommunication lines located north of the existing bridge along N. Bloomfield Road. These lines go underground as it approaches the proposed Alternative 2. There are also some lines hanging from poles and trees on the south side, which go all the way back up the hill.

3.18.2 Thresholds of Significance

Would the Project:

- a) *Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?*
- b) *Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?*
- c) *Result in a determination by the waste water 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?*
- d) *Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?*
- e) *Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*

3.18.3 Environmental Impacts

IMPACT UTL-1: Potential to require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

The project would require the permanent relocation of some telecommunication lines located north of the existing bridge to accommodate construction. However, these relocations would not cause significant environmental effects. Coordination with utility companies would occur during final design. No disruptions to water, sewer, electricity, gas would occur during relocations. Impacts related to both Alternative 1 and 2 would be **Less than Significant**. The No-Build alternative would result in **No Impact**.

IMPACT UTL-2: Potential to have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

The project would not result in the need for new or expanded water supplies. Therefore, Alternative 1 and 2 would result in **No Impact**. The No-Build alternative would also result in **No Impact**.

IMPACT UTL-3: Potential to result in a determination by the waste water 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?

The project would not include the construction of any wastewater-generating uses. Therefore, Alternative 1 and 2 would result in **No Impact**. The No-Build alternative would also result in **No Impact**.

IMPACT UTL-4: Potential to generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Solid waste associated with construction of the existing bridge will occur with Best Management Practices incorporated by the construction contractor, which would dispose or recycle waste at an appropriate waste disposal or recycling facility. Impacts related to both Alternative 1 and 2 would be **Less than Significant**. The No-Build alternative would result in **No Impact**.

IMPACT UTL-5: Potential to comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

The project would comply with federal, state, and local statutes and regulations related to solid waste. Therefore, Alternative 1 and 2 would result in **No Impact**. The No-Build alternative would also result in **No Impact**.

Alternatives Summary

Alternative 1 New Bridge approximately 60 feet upstream

This bridge would require at least two utility poles to be relocated. The existing poles are just north of where the existing bridge ends, along N. Bloomfield Road. These relocations would occur to accommodate construction. Coordination with utilities would occur during final design.

Alternative 2 New Bridge approximately 1,000 feet upstream

This bridge would require at least two utility poles to be relocated. The existing poles are at the hairpin turn near the south approach to the proposed bridge, along N. Bloomfield Road. This relocation would occur to accommodate construction. Coordination with utilities would occur during final design.

Alternative 3 No-Build

This alternative would not build a replacement bridge upstream from the existing, structurally deficient bridge. No mitigation measures would be implemented.

3.18.4 Avoidance, Minimization, and/or Mitigation Measures

The project would have a **Less than Significant Impact** on Utilities and Service Systems and would not conflict with federal, state, or local plans. Therefore, no mitigation measures are required.

3.19 WILDFIRE

3.19.1 Regulatory Setting

State Laws and Requirements

California Fire Code

The 2010 California Fire Code (Title 24, Part 9 of the California Code of Regulations) establishes regulations to safeguard against hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises. The Fire Code also establishes requirements intended to provide safety and assistance to firefighters and emergency responders during emergency operations. The provisions of the Fire Code apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure throughout the State of California (CBSC 2011). The Fire Code includes regulations regarding fire-resistance-rated construction, fire protection systems such as alarm and sprinkler systems, fire services features such as fire apparatus access roads, means of egress, fire safety during construction and demolition, and wildland-urban interface areas. Nevada County has adopted the California Fire Code.

California Health and Safety Code

Additional state fire regulations are set forth in Section 13000 et seq. of the California Health and Safety Code. They include regulations for building standards as set forth in the California Building Code, fire protection and notification systems, fire protection devices such as extinguishers, smoke alarms, high-rise buildings, childcare facility standards, and fire suppression training.

Local Laws and Requirements

Nevada County General Plan

The Nevada County General Plan Chapter 10 – Safety contains goals, objectives, and policies related to Public Services. The following goals are applicable to Public Services:

- Goal EP-10.1, *Provide a coordinated approach to hazard and disaster response preparedness.*
- Goal SF-10.6, *Ensure adequate public safety services and facilities through development standards, development fees, and land use patterns.*
- Goal FP-10.7, *Enhance fires safety and improve fire protection effectiveness through infrastructure and service improvements.*
- Goal FP-10.8, *Reduce fire risk to life and property through land use planning, ordinances, and compliance programs.*

3.19.2 Environmental Setting and Existing Conditions

The project is mapped as a Very High Fire Hazard Severity Zone as recommended by Cal Fire and within a Federal Responsibility Area (FRA). The current road constraints when travelling north on N. Bloomfield Road to the existing bridge prohibit fire response equipment access to the area north of the South Yuba River. Fire response personnel must access areas north of the river via Highway 49 and Tyler Foote Road. This adds an additional 45 minutes or more to response times for fires or emergencies in that vicinity.

3.19.3 Thresholds of Significance

Would the Project:

- a) *Substantially impair an adopted emergency response plan or emergency evacuation plan?*

- 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?*
- 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?*
- 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?*

3.19.4 Environmental Impacts

IMPACT WF-1: Potential to impair an adopted emergency response plan or emergency evacuation plan?

The project would not impair an adopted emergency response plan or emergency evacuation plan since the existing bridge will remain open during construction of the new bridge. Either bridge alternative would include two lanes and improved roadway approaches. However, the roadway to and from the bridge is narrow, paved on the south side and dirt on the north side. The delivery of material and equipment on the road could inhibit evacuation should that be necessary. Implementation of the measures below would avoid or minimize impacts to emergency response and evacuation. Alternative 1 would result in a **Potentially Significant Impact** due to the hairpin turn still existing and preventing emergency vehicles from accessing the public. Impacts related to Alternative 2 construction would be **Less than Significant with Mitigation** due to the implementation of Mitigation Measure **TRA-1**. The current bridge is a significant hazard to emergency response time and access if the proposed bridge is not constructed. Therefore, the No-Build alternative would result in a **Potentially Significant Impact**.

IMPACT WF-2: Potential to exacerbate wildfire risks, due to slope, prevailing winds, and other factors, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

The project would build a new bridge with greater capacity than the existing bridge. However, during construction activities wildfire risk could increase. Measure **WF-3** would minimize that potential risk. Impacts related to both Alternative 1 and 2 would be **Less than Significant with Mitigation**. The No-Build alternative would result in **No Impact**.

IMPACT WF-3: Potential to require the installation or maintenance of infrastructure that may exacerbate fire risk?

Project activities would not require the installation or maintenance of infrastructure that may exacerbate fire risk. Therefore, Alternative 1 and 2 would result in **No Impact**. The No-Build alternative would also result in **No Impact**.

IMPACT WF-4: Potential to expose people or structures to downslope or downstream flooding or landslides?

The project would not expose people or structures to downslope or downstream flooding or landslides due to the implementation of mitigation measures and BMPs under the Biological Resources and Hydrology and Water Quality sections. Impacts related to both Alternative 1 and 2 would be **Less than Significant with Mitigation**. The No-Build alternative would result in **No Impact**.

Alternatives Summary

Alternative 1 New Bridge approximately 60 feet upstream

This bridge would not exacerbate wildfire risks or impair an emergency response or evacuation plan since it is a two-lane bridge as opposed to the existing one-lane bridge. However, the location of the existing bridge and the Alternative 1 bridge do not allow access for certain fire equipment that would be responding to a fire or emergency north of the river. Fire personnel has informed the County that a fire water tender or a D6 Dozer on a trailer are not able to access the bridge due to the steep hairpin turn just up from the bridge on N. Bloomfield Road. Fire personnel also informed the County that the new Alternative 1 bridge does not address the current evacuation route limitations due to the hairpin turn.

Alternative 2 New Bridge approximately 1,000 feet upstream

This bridge would not exacerbate wildfire risks or impair an emergency response or evacuation plan since it is a two-lane bridge as opposed to the existing one-lane bridge. This bridge eliminates the need to negotiate the hairpin turn and provides an adequate evacuation route for residents north of the river. Fire equipment would also be able to cross the bridge and continue north to respond to a fire or other emergency.

Alternative 3 No-Build

This alternative would not build a replacement bridge adjacent to the existing, structurally deficient bridge. No mitigation measures would be implemented. The current bridge is a significant hazard to emergency response time and access, if the proposed bridge is not constructed. There are no feasible mitigation measures that would reduce impacts. Therefore, the No-Build alternative would result in a Potentially Significant Impact.

3.19.5 Avoidance, Minimization, and/or Mitigation Measures

The minimization and mitigation measures would be implemented to reduce impacts to a less than significant level for both build alternatives during construction. Alternative 1 would still result in a potentially significant impact after construction due to the hairpin turn.

WF-1: The contractor shall prepare a Traffic Management Plan that includes a Project schedule with specific information on when vehicle restrictions during construction including if/when limitation to fire equipment access would occur.

WF-2: The contractor shall prepare a Construction Fire Protection Plan approved by the Fire Chief of the Nevada County Consolidated Fire District. The Construction Fire Plan shall implement fire safety measures during construction activities in compliance with the National Fire Protection Association Standard 15B and California Public Resources Code Section 4442.

WF-3: Hot work (welding, cutting, or any activity that involves open flames or produces sparks) shall cease during Red Flag Warning periods declared by the National Weather Service.

WF-4: The contractor shall prepare an Emergency Plan that includes emergency operational procedures for wildland fires, EMS emergencies, and flood emergencies.

3.20 MANDATORY FINDINGS OF SIGNIFICANCE

3.20.1 Thresholds of Significance

Would the Project:

- a) *Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?*
- b) *Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?*
- c) *Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?*

3.20.2 Environmental Impacts

Impact MAN-1: The Project does have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory.

Operation of the completed project would not have potential to degrade the quality of the environment or threaten wildlife or plant communities. However, temporary short-term construction of the project would have the potential to degrade the quality of the existing environment. Potential impacts from project construction have been identified related to Aesthetics (3.1), Air Quality (3.2), Biological Resources (3.3), Cultural Resources (Section 3.4), Hazards and Hazardous Materials (3.8), Hydrology/Water Quality (3.9), Noise (3.11), Tribal Cultural Resources (Section 3.14), and Wildfire (3.16). Mitigation measures have been identified related to individual resource-specific impacts to reduce impacts to the greatest extent possible.

The project has the potential to have impacts to wildlife species including the FYLF; however, mitigation measures **BIO-1** through **BIO-26** would reduce the level of project-related impacts to the species and habitat to less than significant levels. The potential for discovery or disturbance of historical, archaeological, human remains, TCRs, or paleontological resources is not anticipated; however, implementation of mitigation measures **CR-1** through **CR-5** would reduce impacts to a less than significant level by ensuring that appropriate protocol is followed. Project impacts to Aesthetics, Air Quality, Hazards and Hazardous Waste, Hydrology and Water Quality, Noise, and Wildfire would primarily consist of temporary impacts related to construction of the project. These impacts would be reduced to a less than significant level through implementation and incorporation of **VIS-1** through **VIS-4**, **AQ-1** and **AQ-2**, **HAZ-1** and **HAZ-2**, **WQ-1** through **WQ-7**, **NOI-1**, and **WF-1** through **WF-4** respectively.

Implementation of mitigation measures would reduce the level of all project-related impacts during construction to less than significant levels. Impacts related to both Alternative 1 and 2 would be **Less than Significant with Mitigation**.

IMPACT MAN-2: The Project does not have impacts that are individually limited, but cumulatively considerable.

The project would not have adverse environmental impacts at a significant level. There is no significant connection between the project, and any past, current, or future projects. All potential significant impacts would be addressed with avoidance, minimization, and mitigation measures and would not result in

cumulatively considerable impacts. Impacts related to both Alternative 1 and 2 would be **Less than Significant with Mitigation**.

IMPACT MAN-3: The Project does not have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly.

The project would not cause significant adverse effects to human beings, either directly or indirectly with mitigation incorporated. Potential impacts from project construction have been identified related to Aesthetics (3.1), Air Quality (3.2), Biological Resources (3.3), Cultural Resources (Section 3.4), Hazards and Hazardous Materials (3.8), Hydrology/Water Quality (3.9), Noise (3.11), Tribal Cultural Resources (Section 3.14), and Wildfire (3.16). All potentially significant impacts have been reduced to a less than significant level by mitigation measures related to individual resource-specific impacts:

- Measures VIS-1 through VIS-4 (Aesthetics)
- Measures AQ-1 and AQ-2 (Air Quality)
- Measures BIO-1 through BIO-26 (Biological Resources)
- Measures CR-1 through CR-5 (Cultural Resources and Tribal Cultural Resources)
- Measure HAZ-1 and HAZ-2 (Hazards and Hazardous Materials)
- Measures WQ-1 through WQ-7 (Hydrology and Water Quality, and Geology and Soils)
- Measure NOI-1 (Noise)
- Measure WF-1 through WF-4 (Wildfire)

Impacts related to both Alternative 1 and 2 would be **Less than Significant with Mitigation**.

3.20.3 Avoidance, Minimization, and/or Mitigation Measures

Mitigation measures under analysis of each environmental resource within this EIR would reduce impacts to less than significant. The list of measures is also within Appendix G: Mitigation Monitoring and Reporting Program.

4 PROJECT ALTERNATIVES

4.1 OVERVIEW

The Edwards Crossing Bridge Replacement Project evaluated three alternatives that included a no-build alternative and two build alternatives. The rehabilitation alternative was deemed unfeasible due to the structural deficiency of the existing bridge.

4.2 FEASIBILITY STUDY

A Feasibility Study Report for the Edwards Crossing Bridge (Bridge No. 17C-0006) was prepared by Dokken Engineering for the Nevada County Department of Public Works in August of 2018. The information below provides a synopsis of the report.

The Feasibility Study Report presented findings of the structural evaluation of the bridge, bridge rehabilitation concerns, bridge replacement options, and environmental constraints. The purpose of the report was to evaluate feasible alternatives in order for the County and Caltrans Local Assistance to have sufficient information to select the appropriate solution for replacing the bridge based on initial cost, public sentiment, Section 4(f) evaluation, environmental impacts, traffic impacts, emergency response, and maintenance.

Caltrans approved the Highway Bridge Program (HBP) funding for Preliminary Engineering (PE) to replace or rehabilitate the Edwards Crossing Bridge with an E76 authorization dated April 14, 2014. The Bridge Inspection Report and Structure Inventory and Appraisal Report dated December 6, 2017 gave a Sufficiency Rating (SR) of 21.8 along with a “structurally deficient” status, making the bridge eligible for federal HBP funding for bridge replacement.

When Preliminary Engineering began in early 2015, the intention was to pursue rehabilitation of the existing bridge. A rehabilitation plan was developed, and a field review was held to discuss features of the rehabilitation. Rehabilitation was the preferred approach at that time based on very strong public sentiments for the 1904 steel arch bridge. Rehabilitation was consistent with positive feedback from the rehabilitation of the historic Purdon Crossing Bridge. As part of due diligence, the County conducted a public workshop in the summer of 2017 to introduce the project to the public and gather feedback about the proposed improvements. This was prior to initiating full environmental studies on the rehabilitation.

In early 2017, a series of historic atmospheric river events washed out a portion of State Route 49 north of the south fork of the Yuba River. The highway was closed for a period of time, and vehicle traffic was forced to use bypass routes like North Bloomfield-Graniteville Road and Pleasant Valley Road. In addition, recent fires and fire activity around the South Yuba River and western Nevada County has resulted in ongoing public concerns. A major fire, that closed SR-49, occurred on the night of the Edwards Crossing public meeting to discuss the bridge project, which highlighted fire activity and concerns. These emergencies exposed the deficiencies and lack of emergency routes in the North Bloomfield area. Both the winter storm activity and fire dangers resulted in a shift in public sentiment away from bridge rehabilitation and towards construction of a new bridge. As Nevada County staff increased engagement in the fall of 2017, more feedback from the public, elected officials, and safety personnel suggested the need and desire for a new, stronger and wider bridge at Edwards Crossing along with public sentiment in favor of retaining the existing historic structure.

Multiple bridge types and locations were analyzed and narrowed down based on feasibility to the following two replacement alternatives.

- Alternative 1 – construct a new 200-foot bridge 60 feet upstream of existing bridge.
- Alternative 2 – construct a new 500-foot bridge 1,000 feet upstream from existing bridge.

The study concluded that the longer bridge, 1,000 feet upstream, was the recommended alternative based on 2 key metrics: 1) it provides a much safer and accessible roadway alignment by elimination of the sharp hairpin switchback turn in North Bloomfield-Graniteville Road that limits the size of vehicles that can use this road and 2) it locates the new bridge away from the existing historic steel arch truss bridge and the State Park parking area, which can be inundated with vehicles and visitors. Both the existing bridge and the State Park parking area are important avoidance measures identified in the Section 4(f) Evaluation that was completed to assist in the feasibility analysis.

The feasibility study explains why rehabilitation was no longer a viable option and notes the County's desire to retain the old bridge as a pedestrian and river access facility for the many State Park users that visit the area to swim, hike, and utilize the trails on both sides of the river. Upon completion of the new bridge, the existing bridge would be removed from the state bridge inventory list and ineligible for future HBP funding.

Alternative 3 No-Build

Under the No-Build Alternative, no new bridge would be constructed to replace Edwards Crossing Bridge. No mitigation measures would be implemented under this alternative since the project would not occur. Edwards Crossing Bridge would continue to remain structurally deficient and insufficient for emergency vehicle use.

4.3 ALTERNATIVE ANALYSIS

This section compares basic features of each alternative, the feasibility of each alternative, site suitability (public safety and access), economic viability, and differentiates significant effects between alternatives.

Each of the two build alternatives are intended to provide a structurally adequate bridge over the South Yuba River. However, the specific environmental impacts and location of each alternative are what differ and are described below.

Hairpin Curve (Wildfire and Evacuation)

Due to the current road constraints, fire and emergency response vehicles must access the areas north of the South Yuba River via Highway 49 and Tyler Foote Road. This adds an additional 45 minutes or more to response times for incidents in that vicinity. This additional response time increases the risk of loss of life and/or property. The longer response time also creates the potential for a wildland fire to increase in size and intensity further exacerbating the potential loss of life and/or property.

Alternative 1 does not improve access for fire and emergency medical services across the river since the hairpin turn is inaccessible for most large equipment and cannot be improved to accommodate such equipment due to the turn radius, slope, and terrain. Impacts in the summer would be significant due to narrow roads, large number of visitors that go to the bridge, and the number of emergency response calls. A high amount of traffic and severely limited parking in the area makes emergency access and evacuation difficult.

Alternative 2 provides fire and emergency medical services access across the river to the north side and creates a viable evacuation route in the case of an emergency by eliminating the bottleneck caused by the hairpin turn.

The No-Build Alternative would not build a replacement bridge adjacent to the existing, structurally deficient bridge. No mitigation measures would be implemented. The current bridge is a significant hazard to emergency response time and access, if the proposed bridge is not constructed. There are no feasible mitigation measures that would reduce impacts.

Comparison of Environmental Impacts

The comparisons below discuss the environmental factors that each alternative will impact differently.

Aesthetics

Visual impacts would occur under either alternative even after implementing the avoidance, minimization, and mitigation measures. Analysis concluded that Alternative 1 is a stark contrast physically adjacent to the existing historic bridge resulting in a negative effect while Alternative 2 is a larger structure but is not as overwhelming due to the distance from visual resources resulting in minor change. Ultimately, Alternative 2 does not negatively affect the unity of the landscape, fits into the geometry of the canyon due to the steep hillside that would provide the base for piers that would hold the concrete arch, and creates a new vantage point for motorists. The No-Build Alternative would not build a replacement bridge upstream from the existing, structurally deficient bridge.

Air Quality

Air quality impacts are not anticipated to be significant as a result of the project. Since the project will not be expanding the current capacity of the bridge, there are no additional emissions expected during operation. There will be a temporary increase in emissions during construction across both alternatives, but they will be intermittent and limited. Both alternatives have similar construction emissions estimates. Alternative 1 has values that are equal to Alternative 2, with a few exceptions where the values are less than Alternative 2. Of those values where they are less than Alternative 2, the difference is no greater than 0.85 tons. The No-Build Alternative would not build a replacement bridge upstream from the existing, structurally deficient bridge, and there would be no temporary increase in emissions.

Biological Resources

Permanent impacts to mixed oak woodland and mixed coniferous forest, and temporary impacts anticipated for the creation of access areas and the construction of a temporary trestle across the river would occur across both alternatives. Table 13 below summarizes the impacts to natural communities. Alternative 1 would have temporary impacts to approximately 0.10 acres of mixed oak woodland, 0.23 acres of mixed coniferous forest, 0.13 acres of montane riparian, and 0.31 acres of the South Fork Yuba River. Alternative 2 would have temporary impacts to approximately 1.20 acres of mixed oak woodland, 1.16 acres of mixed coniferous forest, 0.09 acres of montane riparian, and 0.30 acres of the South Fork Yuba River. Mitigation for both alternatives would be required for impacts to the South Fork Yuba River and montane riparian habitat and would be satisfied by minimizing vegetation removal, allowing trimmed vegetation to grown back, and on-site re-vegetating using a native seed mix. The removal of mature trees for both alternatives would also require mitigation efforts, which would be completed via replanting or payment to a Tree Preservation Fund in accordance with Nevada County Code. The No-Build Alternative would not build a replacement bridge upstream from the existing, structurally deficient bridge, and there would be no impacts to biological resources.

Table 13. Temporary Impacts to Natural Communities

	Alternative 1	Alternative 2
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Natural Community	Temporary Impacts (acres)	Temporary Impacts (acres)
Mixed Oak Woodland	0.10	1.20
Mixed Coniferous Forest	0.23	1.16
Montane Riparian	0.13	0.09
South Fork Yuba River	0.31	0.30
Total Impacts	0.77	2.75

Cultural Resources

Alternative 1 would result in an adverse effect because it would alter the characteristic of the historic property, namely the character of the surrounding natural landscape, in a manner that would diminish the integrity of the property's immediate setting. Furthermore, these changes to the immediate setting would diminish the integrity of the property's feeling and association. An adverse effect is considered a Significant Impact under CEQA. Alternative 2 would not alter any of the characteristics of the historic property that qualify it for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. With the application of the Rehabilitation Standards, Alternative 2 would not cause an adverse effect on the historic property. The No-Build Alternative would not build a replacement bridge upstream from the existing, structurally deficient bridge, and there would be no impacts to cultural resources.

Hazards and Hazardous Materials

Hazardous waste impacts are not anticipated to be significant as a result of either alternative. The potential to encounter unknown substances would be similar for both alternatives due to the ground disturbance activities planned. The project does have the potential to impair implementation of or physically interfere with any adopted emergency response plan or emergency evacuation plan. Alternative 1 would result in a potentially significant impact due to the existing hairpin turn that would interfere and prevent emergency vehicles from accessing the area. Alternative 2 would remove the hairpin turn and create a much more accessible route for emergency vehicles that would need to utilize the road as part of an emergency response plan or emergency evacuation plan. The No-Build Alternative would result in a potentially significant impact. The current bridge is a significant hazard to emergency response time and access if the proposed bridge is not constructed.

Hydrology/Water Quality

Short-term construction activities would result in the minor loss of vegetation and general disturbance to the soil within the project footprint across both alternatives. The project's short-term construction or operation is not anticipated to substantially increase the rate or amount of surface runoff or create or contribute to runoff water which would exceed the capacity of existing or planned stormwater drainage systems. However, temporary construction of the project may increase the potential for erosion, and the completed project would increase impervious surface area resulting in additional storm water drainage within the project area. The project would add a net impervious surface area of approximately 0.12 acres for Alternative 1 and 0.30 acres for Alternative 2, but would include an approach drainage system to direct runoff appropriately. The No-Build Alternative would not build a replacement bridge upstream from the existing, structurally deficient bridge, and there would be no impacts to hydrology/water quality.

Noise

Tables 12 and 13 below summarizes the traffic noise modelling results for the existing and design year (2042) conditions with the No build and each of the two Build Alternatives. The modeled future noise levels for the Build Alternative were compared to the respective NAC land use Activity Category to

determine whether a traffic noise impact would occur. Traffic noise impacts occur when either of the following occurs: (1) if the traffic noise level at a sensitive receptor location is predicted to “approach or exceed” the NAC, or (2) if the predicted traffic noise level is 12 dBA or more over the corresponding modeled existing noise level at the sensitive receptor locations analyzed. When traffic noise impacts occur, noise abatement measures must be considered.

Table 14: Comparison of Modeled Existing and Future Noise Levels (Alternative 1)

Receiver ID	Location	Type of Land Use	Number of Dwelling Units	Noise Abatement Category	Modeled Existing Peak Noise Level, dBA Leq(h)	Modeled 2042 No Build Peak Noise Level, dBA Leq(h)	Modeled 2042 Build Peak Noise Level, dBA Leq(h)
R1	Spring Creek Trailhead	Parks and Recreation	0	C(67)	36	36	32
R2	South Yuba Trailhead	Parks and Recreation	0	C(67)	40	40	37

Table 15: Comparison of Modeled Existing and Future Noise Levels (Alternative 2)

Receiver ID	Location	Type of Land Use	Number of Dwelling Units	Noise Abatement Category	Modeled Existing Peak Noise Level, dBA Leq(h)	Modeled 2042 No Build Peak Noise Level, dBA Leq(h)	Modeled 2042 Build Peak Noise Level, dBA Leq(h)
R1	Spring Creek Trailhead	Parks and Recreation	0	C(67)	36	36	20
R2	South Yuba Trailhead	Parks and Recreation	0	C(67)	40	40	20

As shown in the tables above, under the existing condition, noise levels at the Spring Creek and South Yuba trailheads range from 36 to 40 dBA Leq(h), and do not approach or exceed the 67 dBA NAC standard for Activity Category C. These trail heads are located at the existing bridge.

Under the design year No Build alternative, no new bridge would be constructed to replace Edwards Crossing Bridge. Future peak hour traffic increase is estimated to be minimal, resulting in little to no change in future traffic noise. Noise levels would continue to not approach or exceed the 67 dBA NAC standard for Activity Category C.

Under Alternative 1, a new, 200-foot bridge would be constructed 60 feet east of the existing bridge, moving traffic noise further away from receivers R1 and R2. Future traffic noise levels under Alternative 1 at receivers R1 and R2 are estimated to decrease by 3 to 4 dBA.

Under Alternative 2, a new, 500-foot bridge would be constructed 1,000 feet east of the existing bridge at a higher elevation, moving traffic noise further away from receivers R1 and R2 than Alternative 1. Future traffic noise levels under Alternative 2 at receivers R1 and R2 are estimated to decrease by 14 to 20 dBA.

Public Services

There would be impacts to public services as a result of the project. Under Alternative 1, the hairpin turn would remain, and emergency vehicle access would be limited. This limitation could also affect an

emergency response plan or emergency evacuation plan. Under Alternative 2, the new bridge eliminates the need to negotiate the hairpin turn and provides an adequate evacuation route for residents north of the river. Emergency vehicle access would improve. The No-Build Alternative would result in a potentially significant impact. The current bridge is a significant hazard to emergency response time and access if the proposed bridge is not constructed.

Recreation

There would be very minimal impacts to recreation as a result. Under Alternative 1, there would be a loss of approximately three to five parking spaces. Although, it is possible these lost parking spaces could be created along the abandoned portions of North Bloomfield-Graniteville Road. Under Alternative 2, the existing bridge would not be utilized as the primary vehicle river crossing. This would allow the possibility of approximately three to five parking spaces to be constructed. The increase in parking under Alternative 2 would result in a net benefit for the public. Table 16 below has additional information regarding Section 4(f) impact for each alternative.

Table 16: Section 4(f) Properties and Use per Alternative

Alternative	Edwards Crossing Bridge	South Yuba River	South Yuba River Trials	South Yuba River State Park
Rehabilitation Alternative	<i>De Minimis</i>	Potential Section 4(f) Use	Potential Section 4(f) Use	<i>De Minimis</i>
Do Nothing (No-Build)	Indirect Section 4(f) Use	No Section 4(f) Use	No Section 4(f) Use	No Section 4(f) Use
Feasible Alternative 1	Section 4(f) Use	<i>De Minimis</i>	<i>De Minimis</i>	<i>De Minimis</i>
Feasible Alternative 2	<i>De Minimis</i>	Temporary Occupancy	Temporary Occupancy	No Section 4(f) Use

The No-Build Alternative would not build a replacement bridge upstream from the existing, structurally deficient bridge, and there would be no impacts to recreation.

Transportation/Traffic

There would be impacts to transportation/traffic as a result of the project. Under Alternative 1, the hairpin turn would remain, and emergency vehicle access would be limited. This limitation could also affect an emergency response plan or emergency evacuation plan. Under Alternative 2, the new bridge eliminates the need to negotiate the hairpin turn and provides an adequate evacuation route for residents north of the river. Emergency vehicle access would improve. The No-Build Alternative would result in a potentially significant impact. The current bridge is a significant hazard to emergency response time and access if the proposed bridge is not constructed.

Tribal Cultural Resources

Neither Alternative is anticipated to cause a substantial adverse change in the significance of a TCR listed or eligible for listing in the California Register of Historical Resources, or in a local register of historic resources as defined in Public Resources Code section 5020.1(k). No impacts to indigenous cultural resources are anticipated. The No-Build Alternative would not build a replacement bridge upstream from the existing, structurally deficient bridge, and there would be no impacts to tribal cultural resources.

Wildfire

This bridge would not exacerbate wildfire risks or impair an emergency response or evacuation plan across both alternatives since both options would be a two-lane bridge as opposed to the existing one-lane

bridge. However, the location of the existing bridge and the Alternative 1 bridge do not allow access for certain fire equipment that would be responding to a fire or emergency north of the river. Fire personnel has informed the County that a fire water tender or a D6 Dozer on a trailer are not able to access the bridge due to the steep hairpin turn just up from the bridge on N. Bloomfield Road. Fire personnel also informed the County that the new bridge does not address the current evacuation route limitations due to the hairpin turn. For Alternative 2, the new bridge eliminates the need to negotiate the hairpin turn and provides an adequate evacuation route for residents north of the river. Fire equipment would also be able to cross the bridge and continue north to respond to a fire or other emergency. The No-Build Alternative would result in a potentially significant impact. The current bridge is a significant hazard to emergency response time and access if the proposed bridge is not constructed.

4.4 ALTERNATIVES CONSIDERED BUT REJECTED FOR FURTHER CONSIDERATION

CEQA Section 15126.6(c) sets forth guidelines for the selection of a range of reasonable alternatives. “The range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects. The EIR should briefly describe the rationale for selecting the alternatives to be discussed. The EIR should also identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency’s determination. The alternatives described below were rejected for further consideration and analysis because they failed to meet most of the basic project objectives, were determined to be infeasible, and/or would not avoid or substantially lessen significant environmental impacts.

The initial intention was to pursue rehabilitation of the existing bridge. However, the occurrence of a series of storm events and a fire in the area caused some emergency closures on SR-49. With these emergencies, the deficiencies and lack of emergency routes in the North Bloomfield area was brought to the forefront. The public sentiment shifted away from bridge rehabilitation, and towards construction of a new, stronger, and wider bridge at Edwards Crossing.

For this reason, the County has concluded that this alternative is not feasible and would not substantially lessen significant environmental impacts; therefore, it is not evaluated further in this EIR.

4.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The focus of the alternatives analysis is on reducing potentially significant impacts of the proposed project. The proposed project would result in one potentially significant impact related to emergency access for public services, traffic, and wildfire for both Alternative 1 and Alternative 3 and one potentially significant impact related to cultural resources for Alternative 1. Based on the analysis of environmental impacts with this report and associated technical studies, the recommended alternative is Alternative 2, a new bridge located approximately 1,000 feet upstream from the existing bridge. Table 16 below shows a comparison of environmental impacts between alternatives.

Table 17: Environmental Impacts Comparison between Alternatives

Resource	Alternative 1	Alternative 2	Alternative 3
Aesthetics	Moderately-high to high visual impact – less than significant with mitigation	Moderately-low visual impact – less than significant with mitigation	Potentially significant should the existing bridge need to be close with a gate around it

Resource	Alternative 1	Alternative 2	Alternative 3
Agriculture and Forestry Resources	Tree removals anticipated – less than significant with mitigation	Tree removals anticipated – less than significant with mitigation	No impact
Air Quality	Temporary construction emissions – less than significant impact with mitigation	Temporary construction emissions – less than significant impact with mitigation	No impact
Biological Resources	Permanent and temporary impacts – less than significant with mitigation	Permanent and temporary impacts – less than significant with mitigation	No impact
Cultural Resources	Adverse effect to setting of historic bridge – potentially significant impact	No adverse effect – less than significant with mitigation	No impact
Energy	Temporary construction energy consumption – less than significant	Temporary construction energy consumption – less than significant	No impact
Geology/Soils	Potential for erosion due to ground disturbing activities – less than significant with mitigation	Potential for erosion due to ground disturbing activities – less than significant with mitigation	No impact
Greenhouse Gas Emissions	Temporary construction emissions – less than significant	Temporary construction emissions – less than significant	No impact
Hazards & Hazardous Materials	Similar Impacts to RECs as Alternative 2 – less than significant with mitigation	Similar Impacts to RECs as Alternative 1 – less than significant with mitigation	Current safety and emergency response barriers remain due to bridge capacity and location – potentially significant impact
Hydrology/Water Quality	Addition of net impervious surface area – less than significant with mitigation	Addition of net impervious surface area – less than significant with mitigation	No impact
Noise	Temporary noise and vibration from construction – less than significant with mitigation	Temporary noise and vibration from construction – less than significant with mitigation	No impact
Public Services	Current safety and emergency response	Increased access to the north side of the	Current safety and emergency response

Resource	Alternative 1	Alternative 2	Alternative 3
	barriers remain due to bridge location – potentially significant impact	river reducing vital response times – less than significant with mitigation	barriers remain due to bridge capacity and location – Potentially significant impact
Recreation	Expansion of existing parking lot – less than significant	Temporary access road and temporary trestle – less than significant	No impact
Transportation/Traffic	Current safety and emergency response barriers remain due to bridge location – potentially significant impact	Increased access to the north side of the river reducing vital response times – less than significant with mitigation	Current safety and emergency response barriers remain due to bridge capacity and location – potentially significant impact
Tribal Cultural Resources	No resources identified – less than significant with mitigation	No resources identified – less than significant with mitigation	No impact
Utilities and Service Systems	Utility relocation – less than significant	Utility relocation – less than significant	No impact
Wildfire	Current safety and emergency response barriers remain due to bridge location – potentially significant impact	Increased access to the north side of the river reducing vital response times – less than significant with mitigation	Current safety and emergency response barriers remain due to bridge capacity and location – potentially significant impact

5 CEQA EVALUATION AND CONSIDERATIONS

5.1 CUMULATIVE IMPACTS

The State 2021 CEQA Guidelines define cumulative impacts as two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. The individual effects may be changes resulting from a single project or number of separate projects. The cumulative impact from several projects is the change in environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time (State CEQA Guidelines § 15355).

For the purpose of this EIR, significant cumulative impacts would occur if impacts related to the implementation of the project, combined with related environmental impacts resulting from implementation of the adopted County General Plan, as well as maintenance and upgrades to existing infrastructure, would result in an adverse significant effect. For an impact to be considered cumulative, these incremental impacts and potential incremental impacts must be related to the types of impacts caused by the project and evaluated in Chapter 3, Environmental Impact Analysis.

Tree Removals

Tree removals are anticipated as a result of the proposed project. However, these removals would be localized and of limited extent. While the elimination of large existing trees would temporarily impact the exiting visual quality of the corridor, new trees and vegetation would be planted and allowed to grow. Mitigation measures are in place to ensure replacement of the trees occurs.

Foothill Yellow-Legged Frog

The FYLF can be found in partly shaded, shallow streams and rocky riffles in a variety of habitats including valley-foothill hardwood, valley-foothill riparian, mixed conifer, coastal scrub, and mixed chaparral. The species requires some cobble-sized substrate for egg laying and a water source persisting for at least 15 weeks for larval metamorphosis. The main predators for FYLF are garter snakes, bullfrogs, and centrarchid fish which were introduced into foothill streams. The FYLF occurs from elevations near sea level to 6,370 ft and within 33 ft of a breeding water source (Zeiner 1988-1990, Cal-Herps 2020).

The FYLF is threatened by pollutants, pesticides, recreational activities within their habitat, and invasive species. The proposed project would not increase the threat of any of these factors to a population of FYLF. Other actions on the South Fork Yuba River in the region include the recently completed Purdon Road Bridge Rehabilitation and the Soda Springs Road Bridge Replacement (Nevada County 2020). In combination with impacts from these other projects, the proposed project could contribute to cumulative impacts on the species in the region. However, avoidance and minimization measures have been incorporated into the project, as well as any measures from the CFG Code §2081 Incidental Take Permit (ITP), that would reduce the project's impact on the species to a negligible level. Therefore, the project would not contribute to cumulative impacts on the species.

5.2 GROWTH-INDUCING IMPACTS

Land use and development has many factors that can be a source of influence. Some of these include population and economic growth, desirability of locations, costs and availability of developable land, physical and regulatory constraints, transportation, and the cost of utility services.

Transportation agencies can play a role in how land use and planning may change, by providing infrastructure that can open up access to new locations and by improving mobility. New development is often associated with increased travel patterns that usually demand new transportation facilities. This section addresses the growth in the project area and the extent to which the project contributes to the growth.

The build alternatives of the project will not have growth-inducing impacts based on the narrow N. Bloomfield Road that leads to the project site and South Yuba River from the south and the dirt road that continues to the north once the river is crossed. The bridge, existing or new, connects to the unpaved road to the north that leads to Malakoff Diggins State Park and into remote areas of Nevada County and does not influence greater land development in the area. Furthermore, the land use north of the South Yuba River is rural and has public facility constraints not conducive for development. For example, the North San Juan area and residents receive potable water from individual groundwater wells. “New development must demonstrate an adequate water source prior to the issuance of land use and/or construction permits” (Nevada County General Plan, Land Use Element, 2020).

5.2.1 Existing Conditions

Population Projections

The project area resides in Census Tract 8.01 and Census Tract 9, in Nevada County (U.S. Census Bureau 2022). Nevada City is the nearest city in Tract 8.02. Since Nevada City is at the crossroads of State Route 20 and State Route 49, it would be beneficial to use Nevada City statistical data to determine the population growth near the project area. According to the Nevada County 2015-2035 Regional Transportation Plan (Nevada County 2018), Nevada County was projected to have a population growth of 0.6% from 2015 to 2035. No population projection data was available for Nevada City.

5.2.2 Impacts

Direct Growth Inducement

The proposed bridge would increase the capacity of the existing bridge from one lane to two lanes with an increased weight capacity. The proposed project would not construct new housing, businesses, roadways, or create new connections to undeveloped land. The proposed project aims to improve driver safety and emergency service response times in the area by improving accessibility for emergency services. The proposed project would also not create permanent employment. The proposed project is consistent with the Nevada County General Plan as the proposed project will continue to be zoned for Open Space, and the project would not change the zoning designation of adjacent areas.

Indirect Growth Inducement

The proposed project would not establish new permanent employment opportunities or involve a substantial construction effort with substantial long-term employment opportunities that could indirectly stimulate the need for additional housing and services to support the new employment demand. Construction of the project would last approximately two years and would not require additional housing and/or services for workers. The proposed project would not directly or indirectly induce growth or remove an obstacle to growth, would not require or result in the need for new or expanded water or wastewater treatment facilities, and would not increase population. No growth inducing effects would occur.

5.3 SIGNIFICANT EFFECTS WHICH CANNOT BE AVOIDED

Section 15126.2(c) of the State CEQA Guidelines defines, in part, environmental effects which cannot be avoided, “Where there are impacts that cannot be alleviated without imposing an alternative design...” Based on the analysis within this document and associated technical studies, most of the impacts of the Edwards Crossing Bridge Replacement Project can be reduced to less than significant with mitigation. Depending on the alternative selected, a few impacts would remain potentially significant. A summary of those impacts is shown below:

Public Services: Both Alternative 1 and Alternative 3 would result in a potentially significant impact. In both scenarios, the existing hairpin turn would remain. This road constraint limits emergency response to the area and adds an additional 45 minutes or more to response times for incidents in that vicinity. Alternative 1 and Alternative 3 do not improve access for fire and emergency medical services across the river since the hairpin turn is inaccessible for most large equipment and cannot be improved to accommodate such equipment due to the turn radius, slope, and terrain.

Wildfire: Both Alternative 1 and Alternative 3 would result in a potentially significant impact. In both scenarios, the existing hairpin turn would remain. This would affect emergency fire and medical response times, as well as any potential evacuation that would occur in an emergency. This additional response time increases the risk of loss of life and/or property. The longer response time also creates the potential for a wildland fire to increase in size and intensity further exacerbating the potential loss of life and/or property.

Transportation/Traffic: Both Alternative 1 and Alternative 3 would result in a potentially significant impact. In both scenarios, the existing hairpin turn would remain. The hairpin turn is a major barrier to fire and emergency equipment and services crossing the river. While the new bridge would meet AASHTO guidelines and the bridge would have sufficient capacity for fire and emergency equipment, access challenges would remain due to the hairpin turn.

5.4 SIGNIFICANT IRREVERSIBLE CHANGES

State CEQA Guidelines Section 15126.2(d) states that, “Uses of nonrenewable resource during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely.” Materials to construct the new bridge would not be renewable; however, secondary impacts are not anticipated due to the fact that an existing bridge is already being utilized to cross the river and the project is not anticipated to increase daily traffic. Maintenance would be required on the new bridge, but likely no more than the required maintenance on the existing bridge accessed from the same road. Therefore, no significant irreversible changes would occur as a result of Alternatives 1, 2, or 3.

5.5 MITIGATION MEASURES

Section 15126.4(a)(1) of the 2021 CEQA Guidelines states, “An EIR shall describe feasible measures which could minimize significant adverse impacts, including where relevant, inefficient and unnecessary consumption of energy.” The section provides details on mitigation measures applied to different resources and the enforcement of measures through permit conditions, agreement, or other legally binding instruments.

Section 15126.4(a)(1)(D) provides that, “If a mitigation measure would cause one or more significant effects in addition to those that would be caused by the Project as proposed, the effects of the mitigation measure shall be discussed but in less detail than the significant effects of the Project as

proposed.” For each impact considered significant in this EIR, mitigation measures have been designed that would reduce the severity of the impact.

Mitigation to reduce the significant impacts to less-than-significant levels are identified in the impact analysis in Chapter 3 and listed in the table below. None of the measures have the potential to themselves result in significant impacts.

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Other Organizations

San Juan Ridge Taxpayers Association
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North San Juan, CA 95960

South Yuba River Citizens League
313 Railroad Avenue, Suite 101
Nevada City, CA 95959

8 REFERENCES

- Association of Environmental Professionals. CEQA Statute & Guidelines, 2020. Available at: https://resources.ca.gov/CNRALegacyFiles/ceqa/docs/2019_CEQA_Statutes_and_Guidelines.pdf
- Bryant, W. A. and E. W. Hart. 2007. Fault-Rupture Hazard Zones in California: Alquist-Priolo Earthquake Fault Zoning Act with index to earthquake fault zone maps. Special Publication 42. Interim Revision. California Geological Survey
- California Air Resources Board (CARB). 2016. Ambient Air Quality Standards. Available at: <https://ww2.arb.ca.gov/sites/default/files/2020-07/aaqs2.pdf> (accessed May 2021)
- California Air Resources Board (CARB). 2020. California Air Basin Map. Available at: <https://ww3.arb.ca.gov/ei/maps/statemap/abmap.htm> (accessed December 2020).
- California Board of Forestry and Fire Protection. 2020. Fire Safe Regulations Update. Available at: <https://bof.fire.ca.gov/regulations/>
- California Building Standards Commission (CBSC). 2011. California Fire Code, California Code of Regulations, Title 24, Part 9, California Building Standards Commission. Published 2010. Effective January 1, 2011.
- California Department of Conservation. 2021. California Important Farmland Finder. Available at: <https://maps.conservation.ca.gov/DLRP/CIFF/> (accessed February 2021).
- California Department of Conservation. Farmland Mapping & Monitoring Program. Available at: <https://www.conservation.ca.gov/dlrp/fmmp> (accessed February 2021).
- California Department of Conservation. Fault Activity Map of California. Available at: <https://www.nevadacountyca.gov/717/Williamson-Act-Parcel-Maps> (accessed February 2021).
- California Department of Conservation. California Important Farmland Finder. Available at: <https://maps.conservation.ca.gov/DLRP/CIFF/> (accessed February 2021).
- California Department of Toxic Substances Control. EnviroStor. Available at: <https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=map> (accessed December 2020).
- California Department of Transportation (Caltrans). 2020 Available at: <https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways> (accessed April 2022).
- California Department of Transportation (Caltrans). 2016. Edwards Crossing Bridge Replacement Project –Aerially Deposited Lead Screening-Level Site Investigation Report.
- California Department of Transportation (Caltrans). 2020. Edwards Crossing Bridge Replacement Project –Air Quality Technical Memorandum.
- California Department of Transportation (Caltrans). 2020. Edwards Crossing Replacement Bridge Project –Visual impact Assessment.
- California Department of Transportation (Caltrans). 2015. Edwards Crossing Bridge Replacement Project –Hazardous Materials Survey Final Report.

California Department of Transportation (Caltrans). 2021. Edwards Crossing Bridge Replacement Project –Natural Environment Study.

California Department of Transportation (Caltrans). 2020. Edwards Crossing Bridge Replacement Project –Noise Technical Memorandum.

California Department of Transportation (Caltrans). 2020. Edwards Crossing Bridge Replacement Project –Water Quality Assessment Report.

California Department of Transportation (Caltrans). 2020. Edwards Crossing Replacement Bridge Project –Visual impact Assessment.

California Geological Survey. 2008. Guidelines for Evaluating and Mitigating Seismic Hazards in California. Special Publication 117a

Cal-Herps. 2020. California Herps: A Guide to the Amphibians and Reptiles of California. Available at: <<http://www.californiaherps.com/>> (accessed 10/16/2020).

California Legislative Information. California Law. Code Search. Available at: http://leginfo.ca.gov/faces/codes_displaySection.xhtml (accessed February 2021).

California State Geoportal. 2020. California Fire Hazard Severity Zone Viewer. <https://gis.data.ca.gov/datasets/789d5286736248f69c4515c04f58f414> (accessed January 2021).

California State Parks. Public GIS Data. Available at: <https://csparks.maps.arcgis.com/apps/webappviewer/index.html?id=f96a883ff4154455b23bdc119f4574a9> (accessed February 2021).

California State Water Resources Control Board. GeoTracker. Sites and Facilities. Available at: <https://geotracker.waterboards.ca.gov/map/> (accessed December 2020).

Natural Resources Conservation Services. Web Soil Survey. Available at: <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx> (accessed January 2021).

Nevada County Community Development. General Plan. Approved 1996. Amended 2014. Available at: <https://www.mynevadacounty.com/1065/General-Plan> (accessed December 2020).

Nevada County. 2020. Current and Future Projects. Nevada County Community Development. Available at: <<https://www.mynevadacounty.com/219/Current-Future-Projects>> (accessed 10/28/2020).

Nevada County General Plan, Volume I, pg. 6-5

Nevada County. Land Use and Development Code. Available at: <http://qcode.us/codes/nevadacounty/view.php?topic=3&frames=off> (accessed March 2021)

Nevada County. 2018. Nevada County Regional Transportation Plan – 2015-2035. Available at: <https://www.nctc.ca.gov/Reports/Regional-Transportation-Plan/index.html#:~:text=The%20purpose%20of%20the%20Regional,Plan%20to%20meet%20these%20needs.> (accessed May 2021)

Nevada County. 2017. Williamson Act Parcel Maps. Available at: <https://www.nevadacountyca.gov/717/Williamson-Act-Parcel-Maps> (accessed April 2022).

Northern Sierra Air Quality Management District. Available at: <https://myairdistrict.com/> (accessed January 2021).

Northern Sierra Air Quality Management District. Guidelines for Assessing and Mitigating Air Quality Impacts of Land Use Projects. 2009. Available at: <https://www.mynevadacounty.com/DocumentCenter/View/15131/NSAQMD-Attachment-Land-Use-Guidelines-PDF> (accessed January 2021).

OES (Nevada County Office of Emergency Services). 2011. Nevada County and Nevada Operational Area Emergency Operations Plan.

South Yuba River Citizens League. 2005. South Yuba River Comprehensive Management Plan.

State Water Resources Control Board. GeoTracker. Available at: <https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=nevada+county> (accessed December 2020).

State Water Resources Control Board. Impaired Water Bodies. Available at: https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtml (accessed December 2020).

Thomson Reuters Westlaw. California Code of Regulations. Available at: <https://govt.westlaw.com/calregs/Index?transitionType=Default&contextData=%28sc.Default%29&bhc p=1> (accessed December 2020).

Uniform Building Code. 1994. Volume 2. Available at: https://digitalassets.lib.berkeley.edu/ubc/UBC_1994_v2.pdf (accessed February 2021).

U.S. Energy Information Administration. Last Updated: May 12, 2021. Units and calculators explained. < <https://www.eia.gov/energyexplained/units-and-calculators/>>. (accessed May 3, 2022).

U.S Census Bureau. May 2022. Available at: <https://data.census.gov/cedsci/> (accessed May 9, 2022).

Zeiner, D.C., W.F. Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. California's Wildlife. Vol. I-III. California Depart. of Fish and Game, Sacramento, California.

Appendix A: NOP meeting details and minutes



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Director of Public Works

Date: February 7, 2020
To: Responsible Agencies, Organizations, and Interested Parties
From: Nevada County Department of Public Works
Contact: Jessica Hankins, Project Manager
Telephone: (530) 265-1254
Email: jessica.hankins@co.nevada.ca.us
Subject: Notice of Preparation of a Draft Environmental Impact Report for the Edwards Crossing Bridge Replacement Project

The County of Nevada, as lead agency for the Edwards Crossing Bridge Replacement Project (Project), intends to prepare an Environmental Impact Report (EIR) consistent with the California Environmental Quality Act (CEQA) to address the potential physical environmental effects of the Project. In accordance with the CEQA Guidelines, the County has prepared this Notice of Preparation (NOP) to provide responsible agencies and other interested parties with sufficient information describing the proposal and its potential environmental effects to meaningfully respond. This project will also require National Environmental Policy Act (NEPA) clearance from both Caltrans and the Bureau of Land Management (BLM). The NEPA documents will be prepared separately.

As specified by the State CEQA Guidelines, the NOP will be circulated for a 30-day review period. The County welcomes public input during this review. If no response or request for additional time is received from any responsible agency by the end of the review period, Nevada County may presume that the responsible agency has no response.

Written and/or email comments in response to this NOP should be provided to the County at the earliest possible date, but must be received by 5:00 p.m. on **March 13, 2020**. Please send all written and email comments to:

Jessica Hankins, Project Manager
Nevada County Department of Public Works
950 Maidu Avenue, Suite 170
Nevada City, CA 95959
Telephone: (530) 265-1254
Email: jessica.hankins@co.nevada.ca.us

Agencies that will need to consider the EIR when deciding whether to issue permits or other approvals for the proposed project should provide the name of a contact person. Comments provided by email should include "Edwards Crossing Bridge Replacement Project NOP Scoping Comment" in the subject line, and the name and mailing address of the commenter in the body of the email.

Public Scoping Meetings: Two public scoping meetings for the EIR will be held as follows:

February 26, 2020 at 6:00-7:30 pm
Board of Supervisors Chambers
Nevada County Government Center
950 Maidu Avenue
Nevada City, CA 95959

February 27, 2020 at 6:00-7:30 pm
North Columbia Schoolhouse
17894 Tyler Foote Road
Nevada City, CA 95959

Project Location

Edwards Crossing Bridge over the South Yuba River is located on North Bloomfield Road in Nevada County (see attached map), approximately 8 miles northeast of Nevada City and 5 miles south of the San Juan Ridge. BLM owns the land that the existing bridge is located on and the land that either of the options would be located on.

Project Description

The project initially consisted of rehabilitating the Edwards Crossing Bridge, but the State's Bridge Inspection Report and Structure Inventory and Appraisal Report of December 6, 2017 rated the bridge as structurally deficient, requiring a replacement bridge. The existing bridge that crosses the South Yuba River is also insufficient for emergency vehicle access.

The project will construct a new two-lane bridge at one of two upstream locations as described under "Alternative 1" and "Alternative 2" below. The existing bridge will remain in place for pedestrian use and historic preservation. Both alternatives will provide access to emergency vehicles and serve as an evacuation route during emergencies such as fires. Staging areas, parking impacts, and environmental issues will be addressed in the CEQA evaluation.

This project is being funded through the Federal Highway Bridges Program.

Alternative 1: New Bridge 60 feet upstream

Alternative 1 would construct a new 193-foot bridge 60 feet upstream from the existing bridge and would not change the current route to and from the bridge. This option consists of a pre-stressed concrete box girder bridge supported on concrete seat-type abutments. The location of this option requires accessing the bridge by negotiating the existing hairpin turn, which would require improvements, and steep roadway on the south side of the river, which restricts access for larger emergency vehicles. This single-span bridge would be above the normal high-water river level to avoid impacts to river hydraulics and minimize environmental issues associated with bridge construction.

Alternative 2: New Bridge 1,000 feet upstream

Alternative 2 would build a new, 500-foot bridge 1,000 feet upstream at a higher elevation and eliminate the hairpin turn on the south side of the river. This bridge type is a concrete arch with spandrel columns and concrete spans, with the bridge deck approximately 170 feet above the river. This location eliminates the hairpin turn and steep roadway access and fits well into the geometry of the canyon. This bridge avoids foundations near the river, thus avoiding some of the hydraulic concerns associated with Alternative 1.

Alternatives

In accordance with Section 15126.6 of the State CEQA Guidelines, an EIR must "describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project and evaluate the comparative merits of the alternatives." As required by CEQA, the EIR will evaluate a No Project alternative and the alternatives described above.

Environmental Factors Potentially Affected

Each of the environmental factors below will be addressed in the EIR.

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

The list below describes some of the potential environmental effects in more detail and steps to evaluate and address such effects.

- **Aesthetics** – The new bridge will result in a noticeable change in the physical characteristics of the existing environment. Various design options and bridge types will be analyzed and presented to the community in order to mitigate adverse effects to aesthetics. A fully developed Visual Impact Assessment (VIA) with photo simulations will be prepared.
 - The VIA will assess how the visual changes caused by a new bridge could impact user groups. This technical report will include an inventory and photographs of viewpoints, notable visual resources, the site’s landscape, and the vividness, intactness, and unity of the project area. Photographs will be used in the analysis and for visual renderings within the VIA.
- **Air Quality** – There will be construction-related air quality impacts that will be discussed in the EIR.
- **Biological Resources** – The project crosses the South Yuba River, which is habitat for aquatic species. It is also likely that birds and their nests are in the area.
 - A Natural Environment Study (NES) will be prepared to document the prevalence of species and define mitigation measures in order to avoid or lessen disturbances. The NES will include field surveys and extensive literature review to assist in determining the existence or potential for occurrence of sensitive plant and animal species. In accordance with Caltrans guidelines, a list of threatened and endangered species known to be or have the potential to be in the vicinity will be obtained from the United States Fish and Wildlife Service (USFWS). For optimal results, fieldwork will be conducted appropriate to the season, and plant surveys will be completed during the blooming season. The NES will include a description of the field methods used, lists of plant and animal species present, and any sensitive resources found. Avoidance, minimization, and mitigation measures will be identified to reduce potential impacts to a less than significant level.
 - A California Department of Fish & Wildlife (CDFW) protocol-level survey for the foothill yellow-legged frog (FYLF) will also be prepared to determine the existence or potential for occurrence of the species. Avoidance and minimization measures will be implemented to ensure that potential impacts to the FYLF are reduced to the greatest extent possible.
- **Cultural and Historic Resources** – The EIR will identify any cultural and historic resources in the area. Archaeological and historical resources will be recorded in the project area and a Historic Property Survey Report and an Archaeological Survey Report will be prepared. A record search of cultural resources will be conducted at the North Central Information Center to identify known

cultural resources within a one-mile radius of the project. An Area of Potential Effects (APE) Map will also be developed to determine the limits of the field surveys and documentation for reports.

- The existing bridge is listed on the Caltrans Historic Bridge Inventory and is eligible for inclusion in the National Register of Historic Places. An Historic Resource Evaluation Report (HRER) will be prepared to provide historic context for the project area and documents buildings, structures, objects, districts, and cultural landscapes located within the project's APE.
- **Geology/Soils** – There will be ground disturbance and excavation to place abutments and build the new bridge. The EIR will analyze the level of ground disturbance and excavation and identify any sensitive geological resources.
- **Hazards & Hazardous Materials** – An Initial Site Assessment (ISA) will be conducted. The ISA will document hazardous waste sites through an agency record search to identify hazardous waste sites in the project area. A visual survey will also be conducted to identify any obvious areas of hazardous waste contamination. If hazardous waste sites are identified, the potential impact and the extent of contamination and remediation will be determined. Lead testing of paint chips on the existing bridge will also be performed to identify if abatement work is necessary.
- **Hydrology/Water Quality** – The new bridge will cross the South Yuba River and involve stream channel work. The EIR will identify the potential impact to water resources.
 - A Water Quality Assessment Report will be prepared to evaluate the potential effects a new bridge may have on the South Yuba River and other drainages and water resources.
- **Land Use** – The project will require temporary and permanent right-of-way on BLM and possibly private land. The extent of right-of-way will depend on the selected bridge alternative. Encroachment permits will be obtained from agencies with jurisdiction as necessary, and the standard right-of-way acquisition process will be followed for any private property acquisitions. The project will also affect access to roadways during construction, which could require a temporary detour.
- **Noise** – There will be construction-related and traffic-related noise due to the new alignment. A Noise Study Report will be prepared.
- **Recreation** – The land is owned by BLM and within the South Yuba Recreation Area. A Programmatic 4(f) Evaluation will be prepared for the project. The 4(f) Evaluation will identify potential impacts and measures to minimize harm to the South Yuba River State Park.
- **Tribal Cultural Resources** – The EIR will identify any tribal cultural resources in the area. Early consultation with California Native American Tribes will consist of formal notification of the project. Avoidance, minimization, or mitigation measures will be identified should any tribal cultural resources be found in the APE. Detailed notes and minutes will be prepared to document responses, meetings, and conversations.
- **Utilities** – There are utilities in the vicinity of the project; the EIR will determine if utility relocation is necessary.
- **Wildfire** – The EIR will identify potential effects to wildfire in the area. Ultimately, the project will reduce the threat to wildfire by providing greater access to emergency and fire vehicles and an evacuation route for area residents.

Scoping Meetings

The County will conduct two scoping meetings during the 30-day public review period. Agencies, non-governmental organizations, community members and groups, and all other interested parties are encouraged to attend the meeting. The meeting will have project management staff on-hand to present the project and answer questions. Participants will have the opportunity to view maps and exhibits of the project and can comment on the project verbally or through provided comment cards. Meeting minutes with a summary of comments will be provided to agencies.

February 26, 2020 at 6:00-7:30 pm

Board of Supervisors Chambers
Nevada County Government Center
950 Maidu Avenue
Nevada City, CA 95959

February 27, 2020 at 6:00-7:30 pm

North Columbia Schoolhouse
17894 Tyler Foote Road
Nevada City, CA 95959

Comment Period

In accordance to Section 15082 of the CEQA Guidelines, this NOP will be circulated for a 30-day period from **February 11, 2020 to March 13, 2020.**

Responses to this NOP should focus on environmental issues, reasonable alternatives, and mitigation measures that the lead agency may need to explore in the draft EIR. Please include your name, the name of your organization or agency, and contact information.

Please send comments regarding this NOP to the address or email below:

Attn: Jessica Hankins
Nevada County Department of Public Works
950 Maidu Avenue, Suite 170
Nevada City, CA 95959

OR

Jessica.Hankins@co.nevada.ca.us

Comments must be received by 5 p.m. on March 13, 2020.



Jessica Hankins
Public Works Project Manager

Enc: Edwards Crossing Bridge Replacement Project Map

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
 For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #

Project Title: Edwards Crossing Bridge Replacement

Lead Agency: <u>Nevada County</u>	Contact Person: <u>Jessica Hankins</u>
Mailing Address: <u>950 Maidu Ave., Suite 170</u>	Phone: <u>(530) 265-1254</u>
City: <u>Nevada City</u> Zip: <u>95959</u>	County: <u>Nevada</u>

Project Location: County: Nevada City/Nearest Community: Nevada City
 Cross Streets: N Bloomfield Road and Rock Creek Road Zip Code: 95959

Longitude/Latitude (degrees, minutes and seconds): 39 ° 19 ' 48.9 " N / 120 ° 59 ' 02.4 " W Total Acres: _____

Assessor's Parcel No.: 062-110-019; 062-110-018; 062-080-005; 062-080-007 Section: _____ Twp.: _____ Range: _____ Base: _____

Within 2 Miles: State Hwy #: N/A Waterways: South Yuba River
 Airports: N/A Railways: N/A Schools: N/A

Document Type:

CEQA: <input checked="" type="checkbox"/> NOP	<input type="checkbox"/> Draft EIR	NEPA: <input type="checkbox"/> NOI	Other: <input type="checkbox"/> Joint Document
<input type="checkbox"/> Early Cons	<input type="checkbox"/> Supplement/Subsequent EIR	<input type="checkbox"/> EA	<input type="checkbox"/> Final Document
<input type="checkbox"/> Neg Dec	(Prior SCH No.) _____	<input type="checkbox"/> Draft EIS	<input type="checkbox"/> Other: _____
<input type="checkbox"/> Mit Neg Dec	Other: _____	<input type="checkbox"/> FONSI	_____

Local Action Type:

<input type="checkbox"/> General Plan Update	<input type="checkbox"/> Specific Plan	<input type="checkbox"/> Rezone	<input type="checkbox"/> Annexation
<input type="checkbox"/> General Plan Amendment	<input type="checkbox"/> Master Plan	<input type="checkbox"/> Prezone	<input type="checkbox"/> Redevelopment
<input type="checkbox"/> General Plan Element	<input type="checkbox"/> Planned Unit Development	<input type="checkbox"/> Use Permit	<input type="checkbox"/> Coastal Permit
<input type="checkbox"/> Community Plan	<input type="checkbox"/> Site Plan	<input type="checkbox"/> Land Division (Subdivision, etc.)	<input checked="" type="checkbox"/> Other: <u>Transportation</u>

Development Type:

<input type="checkbox"/> Residential: Units _____ Acres _____	<input checked="" type="checkbox"/> Transportation: Type <u>Bridge</u>
<input type="checkbox"/> Office: Sq.ft. _____ Acres _____ Employees _____	<input type="checkbox"/> Mining: Mineral _____
<input type="checkbox"/> Commercial: Sq.ft. _____ Acres _____ Employees _____	<input type="checkbox"/> Power: Type _____ MW _____
<input type="checkbox"/> Industrial: Sq.ft. _____ Acres _____ Employees _____	<input type="checkbox"/> Waste Treatment: Type _____ MGD _____
<input type="checkbox"/> Educational: _____	<input type="checkbox"/> Hazardous Waste: Type _____
<input type="checkbox"/> Recreational: _____	<input type="checkbox"/> Other: _____
<input type="checkbox"/> Water Facilities: Type _____ MGD _____	

Project Issues Discussed in Document:

<input checked="" type="checkbox"/> Aesthetic/Visual	<input type="checkbox"/> Fiscal	<input checked="" type="checkbox"/> Recreation/Parks	<input checked="" type="checkbox"/> Vegetation
<input type="checkbox"/> Agricultural Land	<input type="checkbox"/> Flood Plain/Flooding	<input type="checkbox"/> Schools/Universities	<input checked="" type="checkbox"/> Water Quality
<input checked="" type="checkbox"/> Air Quality	<input checked="" type="checkbox"/> Forest Land/Fire Hazard	<input type="checkbox"/> Septic Systems	<input type="checkbox"/> Water Supply/Groundwater
<input checked="" type="checkbox"/> Archeological/Historical	<input checked="" type="checkbox"/> Geologic/Seismic	<input type="checkbox"/> Sewer Capacity	<input checked="" type="checkbox"/> Wetland/Riparian
<input checked="" type="checkbox"/> Biological Resources	<input checked="" type="checkbox"/> Minerals	<input checked="" type="checkbox"/> Soil Erosion/Compaction/Grading	<input checked="" type="checkbox"/> Growth Inducement
<input type="checkbox"/> Coastal Zone	<input checked="" type="checkbox"/> Noise	<input type="checkbox"/> Solid Waste	<input checked="" type="checkbox"/> Land Use
<input type="checkbox"/> Drainage/Absorption	<input checked="" type="checkbox"/> Population/Housing Balance	<input checked="" type="checkbox"/> Toxic/Hazardous	<input checked="" type="checkbox"/> Cumulative Effects
<input type="checkbox"/> Economic/Jobs	<input checked="" type="checkbox"/> Public Services/Facilities	<input checked="" type="checkbox"/> Traffic/Circulation	<input checked="" type="checkbox"/> Other: <u>Tribal Resources</u>

Present Land Use/Zoning/General Plan Designation: General Plan and Zoning: Open Space and Forest-40

Project Description: *(please use a separate page if necessary)*

The existing bridge that crosses the South Yuba River has been determined to be structurally deficient and is insufficient for emergency vehicle access. Therefore, a new bridge must be constructed. Two proposed bridge alternatives have been created and will be evaluated, which will provide access to emergency vehicles and serve as an evacuation route during emergencies such as fires. One of the alternatives would construct a new, 193 foot bridge 60 feet upstream from the existing bridge and would not change the current route to and from the bridge. Another alternative would build a new, 500 foot bridge 1,000 feet upstream at a higher elevation and eliminate the hairpin turn on the south side of the river. Further detail regarding each alternative is below. Ultimately, the project will construct a new 2-lane bridge at one of two upstream locations. The existing bridge will remain in place for pedestrian use and historic preservation. Staging areas and parking impacts will be addressed during the project along with environmental factors affected by this project.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with an "X".
If you have already sent your document to the agency please denote that with an "S".

<input type="checkbox"/> Air Resources Board	<input checked="" type="checkbox"/> Office of Historic Preservation
<input type="checkbox"/> Boating & Waterways, Department of	<input type="checkbox"/> Office of Public School Construction
<input type="checkbox"/> California Emergency Management Agency	<input checked="" type="checkbox"/> Parks & Recreation, Department of
<input checked="" type="checkbox"/> California Highway Patrol	<input type="checkbox"/> Pesticide Regulation, Department of
<input checked="" type="checkbox"/> Caltrans District # <u>3</u>	<input type="checkbox"/> Public Utilities Commission
<input checked="" type="checkbox"/> Caltrans Division of Aeronautics	<input checked="" type="checkbox"/> Regional WQCB # <u>5</u>
<input type="checkbox"/> Caltrans Planning	<input checked="" type="checkbox"/> Resources Agency
<input type="checkbox"/> Central Valley Flood Protection Board	<input type="checkbox"/> Resources Recycling and Recovery, Department of
<input type="checkbox"/> Coachella Valley Mtns. Conservancy	<input type="checkbox"/> S.F. Bay Conservation & Development Comm.
<input type="checkbox"/> Coastal Commission	<input type="checkbox"/> San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
<input type="checkbox"/> Colorado River Board	<input type="checkbox"/> San Joaquin River Conservancy
<input checked="" type="checkbox"/> Conservation, Department of	<input type="checkbox"/> Santa Monica Mtns. Conservancy
<input type="checkbox"/> Corrections, Department of	<input checked="" type="checkbox"/> State Lands Commission
<input type="checkbox"/> Delta Protection Commission	<input type="checkbox"/> SWRCB: Clean Water Grants
<input type="checkbox"/> Education, Department of	<input checked="" type="checkbox"/> SWRCB: Water Quality
<input type="checkbox"/> Energy Commission	<input type="checkbox"/> SWRCB: Water Rights
<input checked="" type="checkbox"/> Fish & Game Region # <u>2</u>	<input type="checkbox"/> Tahoe Regional Planning Agency
<input type="checkbox"/> Food & Agriculture, Department of	<input checked="" type="checkbox"/> Toxic Substances Control, Department of
<input checked="" type="checkbox"/> Forestry and Fire Protection, Department of	<input type="checkbox"/> Water Resources, Department of
<input type="checkbox"/> General Services, Department of	
<input type="checkbox"/> Health Services, Department of	<input checked="" type="checkbox"/> Other: <u>See attached list.</u>
<input type="checkbox"/> Housing & Community Development	<input type="checkbox"/> Other: _____
<input checked="" type="checkbox"/> Native American Heritage Commission	

Local Public Review Period (to be filled in by lead agency)

Starting Date February 11, 2020 Ending Date March 13, 2020

Lead Agency (Complete if applicable):

Consulting Firm: <u>Dokken Engineering</u>	Applicant: <u>Nevada County</u>
Address: <u>110 Blue Ravine Road, #200</u>	Address: <u>950 Maidu Ave., Suite 170</u>
City/State/Zip: <u>Folsom, CA 95630</u>	City/State/Zip: <u>Nevada City, CA 95959</u>
Contact: <u>Namat Hosseinion</u>	Phone: <u>(530) 265-1254</u>
Phone: <u>(916) 858-0642</u>	

Signature of Lead Agency Representative: Jessica Hankins

Digitally signed by Jessica Hankins
Date: 2020.02.06 14:01:25 -08'00'

Date: February 6, 2020

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

EDWARDS CROSSING BRIDGE REPLACEMENT PROJECT

Notice of Preparation (NOP) for an EIR Meeting

February 27th, 2020



NOTICE OF PREPARATION MEETING OVERVIEW

- **Edwards Crossing Bridge (existing and proposed)**
- **Introduce the project team**
- **Provide background**
- **Present the environmental impact report (EIR) process**
- **Obtain comments from the community and agencies**



EDWARDS CROSSING BRIDGE

- Crosses the South Yuba River
- Recreational destination
- Built in 1904
- Weight limit: 4 tons
- Structurally deficient
 - Caltrans Bridge Inspection Report 12/6/2017
- Cannot accommodate emergency vehicles
- Inadequate evacuation route



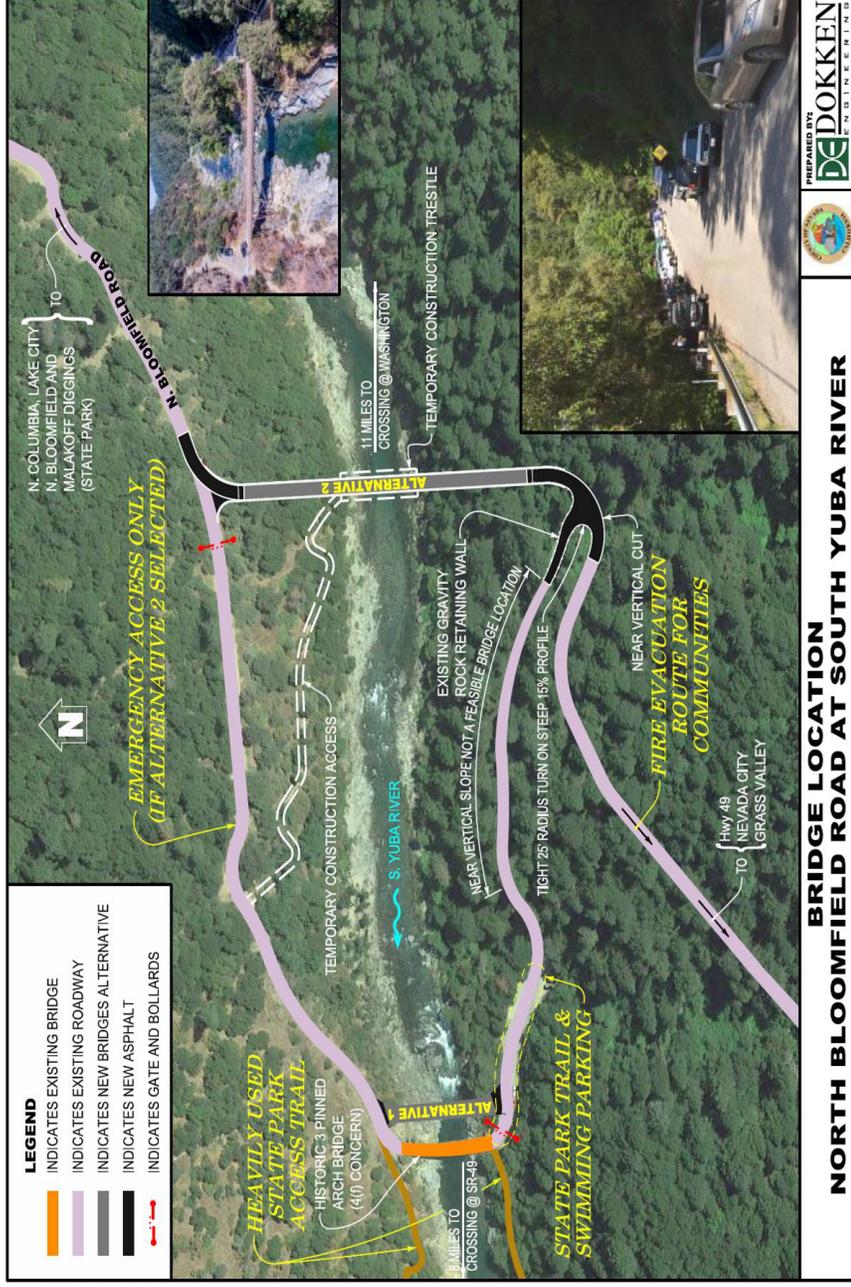
BRIDGE FEASIBILITY STUDY

- Evaluated rehabilitation
 - Structural constraints
 - Would not accommodate emergency vehicle access or evacuation routes
- Worked with various agencies to understand concerns
- Various locations for alternatives were evaluated
- Two feasible alternatives established



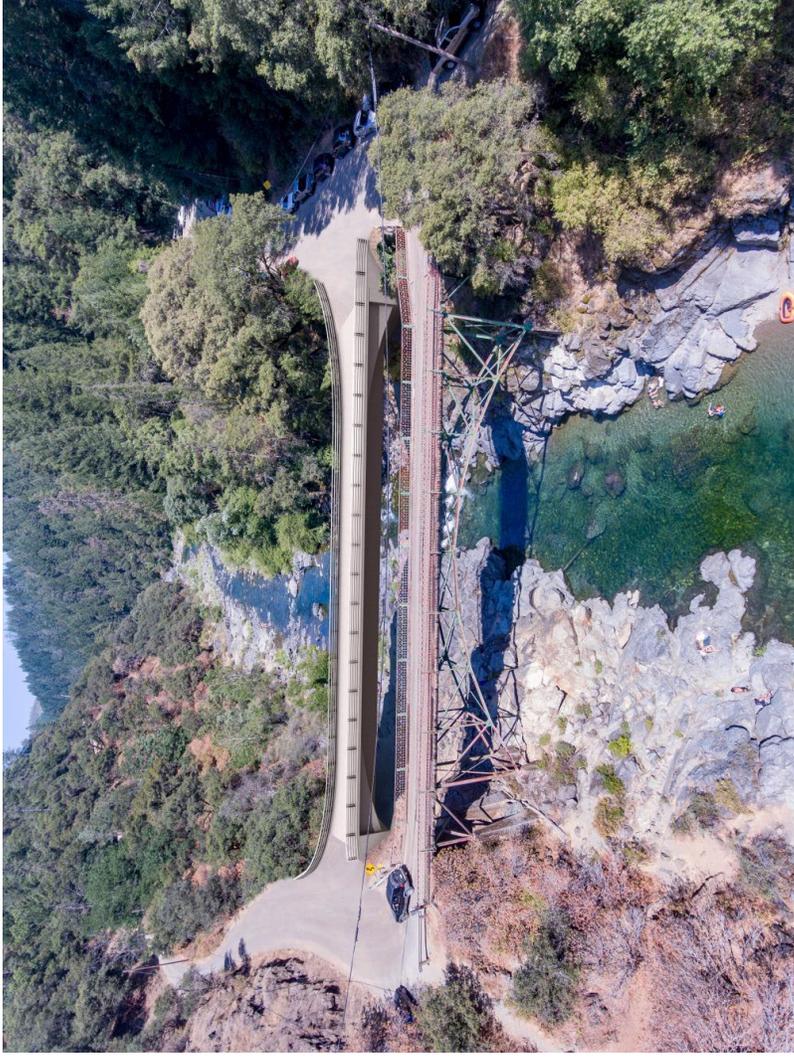
CONSTRUCTION CHALLENGES

- Staging area
- Steep slopes
- Access



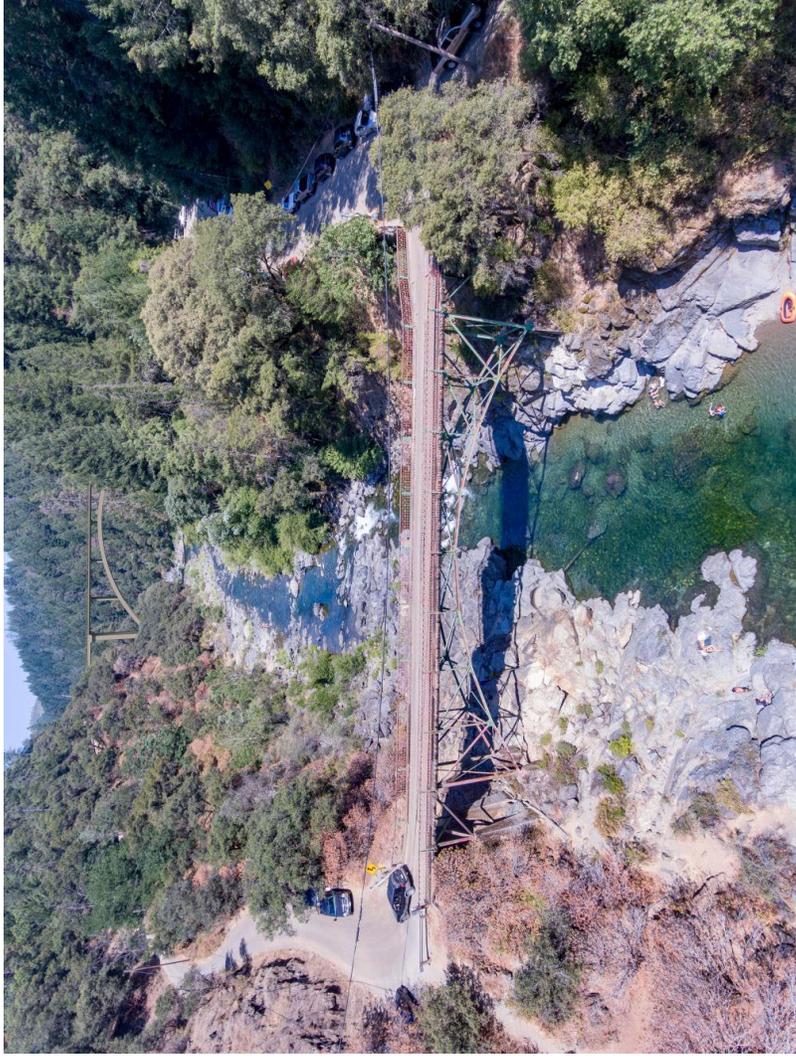
ALTERNATIVE 1 — 60' UPSTREAM

- 190' bridge
- Shortest possible bridge, adjacent to existing bridge
- Keeps existing route to and from the bridge the same
- Existing bridge remains in place
- Could potentially eliminate several parking spaces near existing bridge



ALTERNATIVE 2 — 1,000' UPSTREAM

- 360' bridge
- Much higher and longer than existing bridge
- Eliminates hairpin turn on the south side of the river
- Existing bridge remains in place
- Could potentially create more parking spaces near existing bridge



RESPONSIVE DESIGNS

- Both alternatives provide a two-lane bridge
- Improved pedestrian access
- More adequate evacuation route
- Capacity for emergency equipment
- Minimize environmental impacts



ENVIRONMENTAL PROCESS

- CEQA and NEPA requirements
 - Nevada County, Caltrans, and BLM
 - Notice of Preparation (NOP) for an Environmental Impact Report (EIR)

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



AESTHETICS

- Considerations for drivers and recreational users
- Visual character of the area
- Visual Impact Assessment
- Minimization measures



BIOLOGICAL AND CULTURAL RESOURCES

- **Area of Potential Effect (APE) map created**
- **Aquatic species**
- **Migratory birds**
- **Natural Environment Study**
- **Historic Resource Evaluation Report**
 - **Historic Property Survey Report**
 - **Archaeological Survey Report**



RECREATIONAL IMPACTS

- Within the South Yuba River State Park jurisdiction
- South Yuba River
 - Hikers, swimmers, etc.
- Parking
- Section 4(f) evaluation will be prepared



THANK YOU!





DEPARTMENT OF PARKS AND RECREATION

Lisa Ann L. Mangat, Director

SIERRA DISTRICT
POST OFFICE BOX 266
7360 WEST LAKE BOULEVARD
TAHOMA, CALIFORNIA 96142

March 11th, 2020

Jessica Hankins, Project Manager
Nevada County Department of Public Works
950 Maidu Avenue, Suite 170
Nevada City, CA 95959

Subject: Notice of Preparation of a Draft Environmental Impact Report for the Edwards Crossing Bridge Replacement Project

The California Department of Parks and Recreation (CA DPR) – Sierra District would like to thank you for the opportunity to comment on the Notice of Preparation (NOP) for the proposed Draft Environmental Impact Report for the Edwards Crossing Bridge Replacement Project. CA DPR has ownership of a 197-acre parcel along the South Yuba River near the current Edwards Crossing Bridge. The area in the proposed project is used by the public and by CA DPR staff to access this parcel. North Bloomfield Road through Edwards Crossing is also used by CA DPR staff as an alternative route to access Malakoff Diggins State Historic Park.

CA DPR staff understand the current physical limitations of the current Edwards Crossing bridge for larger vehicles including emergency services, fire, and law enforcement. In addition, illegal public parking along the narrow North Bloomfield road corridor creates an ongoing access and safety issue.

We appreciate that all aspects of the California Environmental Quality Act will be addressed in the draft Environmental Impact Report including aesthetics, recreation, noise, cultural resources, hydrology and water quality, biological resources, and wildfire. In addition, CA DPR notes that the South Yuba River Comprehensive Management Plan (2005) covers the Edwards Crossing area. The Plan does not address the Edwards Crossing Bridge and only briefly mentions parking issues. However, it does mention "Visual Quality Objectives" and suggests that management actions defer to the natural scenic beauty of the river canyon.

From page 25:

"Partial Retention means that management activities must borrow from the natural landscape in regards to line, texture, shape, and color. Alterations to the landscape can be somewhat apparent to the casual observer but they should look fairly natural when viewing the broader landscape. For the Forest Service, almost the entire corridor is set for a Partial Retention Visual Quality Objective. For the Bureau of Land Management, the corridor is set for a Visual Resource Management Class II, which is equivalent to a Retention VQO. State Park lands do not have formal Visual Quality Objectives, however their mandate is to maintain and protect the natural landscape as well as heritage features."

The document was produced by CA DPR, the Tahoe National Forest, and The Bureau of Land Management and can be transferred electronically to the County of Nevada for review if necessary.

Sincerely,

Daniel Lubin
Environmental Scientist, CA State Parks

Cc: Matt Green, Sierra District Acting District Superintendent
Dan Shaw, Sierra District Senior Environmental Scientist



Jared Blumenfeld
Secretary for
Environmental Protection



Department of Toxic Substances Control

Meredith Williams, Ph.D., Director
8800 Cal Center Drive
Sacramento, California 95826-3200



Gavin Newsom
Governor

February 25, 2020

Ms. Jessica Hankins
Nevada County
950 Maidu Ave., Suite 170
Nevada City, California 95959

NOTICE OF PREPARATION OF DRAFT ENVIRONMENTAL IMPACT REPORT (EIR) FOR THE EDWARDS CROSSING BRIDGE REPLACEMENT PROJECT – DATED FEBRUARY 7, 2020 (STATE CLEARINGHOUSE NUMBER: 2020029038)

Dear Ms. Hankins:

The Department of Toxic Substances Control (DTSC) received a Notice of Preparation for a Draft Environmental Impact Report (EIR) for the Edwards Crossing Bridge Replacement Project. The proposed project is the replacement of the bridge that crosses the South Yuba River that has been determined to be structurally deficient and has insufficient access for emergency vehicles. Two proposed bridge alternatives have been created and will be evaluated, which will provide access to emergency vehicles and serve as an evacuation route during emergencies such as fires. The first alternative would be to construct a new, 193-foot bridge that would be located approximately 60 feet upstream from the existing bridge and would not change the current route to and from the bridge. The second alternative would be to build a new, 500-foot bridge that would be located approximately 1,000 feet upstream at a higher elevation and would eliminate the hairpin turn on the south side of the river.

DTSC recommends that the following issues be evaluated in the EIR Hazards and Hazardous Materials section:

1. The EIR should acknowledge the potential for historic or future activities on or near the project site to result in the release of hazardous wastes/substances on the project site. In instances in which releases have occurred or may occur, further studies should be carried out to delineate the nature and extent of the contamination, and the potential threat to public health and/or the environment should be evaluated. The EIR should also identify the mechanism(s) to initiate any required investigation and/or remediation and the government agency who will be responsible for providing appropriate regulatory oversight.

2. If any sites within the project area or sites located within the vicinity of the project have been used or are suspected of having been used for mining activities, proper investigation for mine waste should be discussed in the EIR. DTSC recommends that any project sites with current and/or former mining operations onsite or in the project site area should be evaluated for mine waste according to DTSC's 1998 Abandoned Mine Land Mines Preliminary Assessment Handbook (https://dtsc.ca.gov/wp-content/uploads/sites/31/2018/11/aml_handbook.pdf).
3. If buildings or other structures are to be demolished on any project sites included in the proposed project, surveys should be conducted for the presence of lead-based paints or products, mercury, asbestos containing materials, and polychlorinated biphenyl caulk. Removal, demolition and disposal of any of the above-mentioned chemicals should be conducted in compliance with California environmental regulations and policies. In addition, sampling near current and/or former buildings should be conducted in accordance with DTSC's 2006 *Interim Guidance Evaluation of School Sites with Potential Contamination from Lead Based Paint, Termiticides, and Electrical Transformers* (https://dtsc.ca.gov/wpcontent/uploads/sites/31/2018/09/Guidance_Lead Contamination_050118.pdf).
4. If any projects initiated as part of the proposed project require the importation of soil to backfill any excavated areas, proper sampling should be conducted to ensure that the imported soil is free of contamination. DTSC recommends the imported materials be characterized according to *DTSC's 2001 Information Advisory Clean Imported Fill Material* (https://dtsc.ca.gov/wp-content/uploads/sites/31/2018/09/SMP_FS_Cleanfill-Schools.pdf).
5. If any sites included as part of the proposed project have been used for agricultural, weed abatement or related activities, proper investigation for organochlorinated pesticides should be discussed in the EIR. DTSC recommends the current and former agricultural lands be evaluated in accordance with DTSC's 2008 *Interim Guidance for Sampling Agricultural Properties (Third Revision)* (<https://dtsc.ca.gov/wp-content/uploads/sites/31/2018/09/Ag-Guidance-Rev-3-August-7-2008-2.pdf>).

DTSC appreciates the opportunity to review the EIR. Should you need any assistance with an environmental investigation, please submit a request for Lead Agency Oversight Application, which can be found at: https://dtsc.ca.gov/wp-content/uploads/sites/31/2018/09/VCP_App-1460.doc. Additional information regarding voluntary agreements with DTSC can be found at: <https://dtsc.ca.gov/brownfields/>.

Ms. Jessica Hankins
February 25, 2020
Page 3

If you have any questions, please contact me at (916) 255-3710 or via email at Gavin.McCreary@dtsc.ca.gov.

Sincerely,

A handwritten signature in blue ink that reads "Gavin McCreary". The signature is cursive and fluid.

Gavin McCreary
Project Manager
Site Evaluation and Remediation Unit
Site Mitigation and Restoration Program
Department of Toxic Substances Control

cc: (via email)

Governor's Office of Planning and Research
State Clearinghouse
State.Clearinghouse@opr.ca.gov

Ms. Lora Jameson, Chief
Site Evaluation and Remediation Unit
Department of Toxic Substances Control
Lora.Jameson@dtsc.ca.gov

Mr. Dave Kereazis
Office of Planning & Environmental Analysis
Department of Toxic Substances Control
Dave.Kereazis@dtsc.ca.gov

Nevada County Fire Chiefs' Association

P. O. Box 1742 Grass Valley, California 95945

CAL FIRE
Grass Valley
Higgins CDF
Nevada City
Nevada Co. Consolidated
North San Juan
Ophir Hill
Peardale-Chicago Park
Penn Valley
Rough & Ready
U.S.F.S.-Tahoe
Washington

February 27, 2020

To Whom it May Concern,

Approximately 700,000 visitors a year visit the South Yuba River between the Town of Washington and Bridgeport State Park located in Penn Valley. Western Nevada County Fire Agencies are concerned with access to these areas during the busy summer months for emergency incidents and wildland fires. A significant number of the visitors are in the area of Edwards Crossing at North Bloomfield Road. Limited parking coupled with those who park illegally is encountered routinely and hampers emergency access.

Edwards Crossing separates two local government fire agencies that respond, along with CAL FIRE. Fire Apparatus are unable to cross the current bridge due to weight restrictions and approaches to the bridge. Nevada County has bridges that can support the weight of fire apparatus in the Town of Washington, the South Yuba Bridge on Hwy 49 and at Bridgeport State Park on Pleasant Valley Road in Penn Valley. This makes the nearest crossing for fire apparatus an estimated 25-mile delay from Edwards Crossing. If dispatch is unable to determine what side of the river the incident is on, they dispatch resources from multiple agencies. Currently, to access an incident, units may have to drive up to one hour to meet other resources and / or walk across the bridge to meet other agencies or locate a patient. This leaves areas with fewer resources to respond to other incidents. Add this to number of visitors and parking issues, if evacuation is ever needed this could be a major disaster.

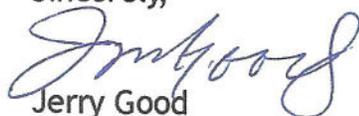
A group of County Staff and Fire Agency Representatives have met with an Engineer working on the new Edwards Crossing bridge design and have reviewed two locations for a new bridge to be constructed.

Option 1: To construct a new bridge close to the current bridge is a concern. Fire apparatus would have difficulty crossing due to the tight approach onto the bridge, and the parking concerns on the road just prior to these approaches. It would still be unlikely that the larger fire apparatus would not be able to access the bridge shown on these designs.

Option 2: To construct a new bridge approximately 1,000 feet upstream from the current bridge is the best alternative. This is the more costly option, but the benefits outweigh the cost. This location would allow for an easier, safer evacuation of the area and allow larger fire apparatus and equipment (bulldozers and water tenders) the ability to cross the river easily accessing both sides. This option will also eliminate a sharp hairpin turn that does not allow for most trailers to pass through.

The Western Nevada County Fire Chiefs' Association supports Option 2. A bridge that will accommodate all types of Fire Apparatus and Equipment, along with being able to effectively evacuate the area is key to saving lives and to rapidly attack a fire. Option 2 saves valuable response time that may change the outcome of an emergency or save a life.

Sincerely,

A handwritten signature in blue ink that reads "Jerry Good". The signature is fluid and cursive, with the first name "Jerry" being more prominent than the last name "Good".

Jerry Good

President, Nevada County Fire Chiefs' Association



NATIVE AMERICAN HERITAGE COMMISSION

RECEIVED

MAR 06 2020

February 12, 2020

Jessica Hankins
Nevada County
950 Maidu Ave., Suite 170
Nevada City, CA 95959

COMMUNITY DEV AGENCY

CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
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Stenslie**
Chumash

COMMISSIONER
[Vacant]

EXECUTIVE SECRETARY
Christina Snider
Pomo

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

Re: 2020029038, Edwards Crossing Bridge Replacement Project, Nevada County

Dear Ms. Hankins:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, § 15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

- 1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project:** Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

 - a. A brief description of the project.
 - b. The lead agency contact information.
 - c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
 - d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).
- 2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report:** A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1 (b)).

 - a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).
- 3. Mandatory Topics of Consultation If Requested by a Tribe:** The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

 - a. Alternatives to the project.
 - b. Recommended mitigation measures.
 - c. Significant effects. (Pub. Resources Code §21080.3.2 (a)).
- 4. Discretionary Topics of Consultation:** The following topics are discretionary topics of consultation:

 - a. Type of environmental review necessary.
 - b. Significance of the tribal cultural resources.
 - c. Significance of the project's impacts on tribal cultural resources.
 - d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).
- 5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process:** With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).
- 6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document:** If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

 - a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
 - b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

- 7. Conclusion of Consultation:** Consultation with a tribe shall be considered concluded when either of the following occurs:
- a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
 - b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).
- 8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document:** Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).
- 9. Required Consideration of Feasible Mitigation:** If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).
- 10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:**
- a. Avoidance and preservation of the resources in place, including, but not limited to:
 - i. Planning and construction to avoid the resources and protect the cultural and natural context.
 - ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
 - b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
 - i. Protecting the cultural character and integrity of the resource.
 - ii. Protecting the traditional use of the resource.
 - iii. Protecting the confidentiality of the resource.
 - c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
 - d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).
 - e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).
 - f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).
- 11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource:** An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
- a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.
 - b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
 - c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. **Tribal Consultation:** If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. **No Statutory Time Limit on SB 18 Tribal Consultation.** There is no statutory time limit on SB 18 tribal consultation.
3. **Confidentiality:** Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. **Conclusion of SB 18 Tribal Consultation:** Consultation should be concluded at the point in which:
 - a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
 - b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: <http://nahc.ca.gov/resources/forms/>.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
 - a. If part or all of the APE has been previously surveyed for cultural resources.
 - b. If any known cultural resources have already been recorded on or adjacent to the APE.
 - c. If the probability is low, moderate, or high that cultural resources are located in the APE.
 - d. If a survey is required to determine whether previously unrecorded cultural resources are present.
2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
 - a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
 - b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
 - a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
 - b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
 - a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, § 15064.5(f) (CEQA Guidelines § 15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
 - b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
 - c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code § 7050.5, Public Resources Code § 5097.98, and Cal. Code Regs., tit. 14, § 15064.5, subdivisions (d) and (e) (CEQA Guidelines § 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Nancy.Gonzalez-Lopez@nahc.ca.gov.

Sincerely,



Nancy Gonzalez-Lopez
Staff Services Analyst

cc: State Clearinghouse



**SHINGLE SPRINGS BAND
OF MIWOK INDIANS**

**Shingle Springs Rancheria
(Verona Tract), California
5168 Honpie Road
Placerville, CA 95667
Phone: 530-676-8010
shinglespringsrancheria.com**

CULTURAL RESOURCES

March 2, 2020

County of Nevada – Public Works Dept.
Jessica Hankins
950 Maidu Avenue, Suite 170
Nevada City, CA 95959

RE: Edwards Crossing Bridge Replacement Project

Dear Jessica Hankins,

Thank you for your letter dated February 7, 2020 in regard to the above mentioned project. Based on the information provided, the Shingle Springs Band Of Miwok Indians is not aware of any known cultural resources on this site. However, SSR would like to have continued consultation through updates, as the project progresses. This will foster a greater communication between the Tribe and your agency.

SSR would also like to request any and all completed record searches and or surveys that were done in or around the project area up to and including environmental, archaeological and cultural reports. If during the progress of the project new information or human remains are found, we would like to be able to go over our process with you to protect such important and sacred artifacts (especially near rivers and streams).

If such finds are made, please contact Kara Perry, Site Protection Manager, at (530) 488-4049 or kperry@ssband.org.

Thank you for providing us with this notice and opportunity to comment.

Sincerely,

Daniel Fonseca
Cultural Resource Director
Tribal Historic Preservation Officer (THPO)
Most Likely Descendant (MLD)

Nevada County Historical Landmarks Commission
P.O. Box 1014
Nevada City, California 95959
info@nevadacountylandmarks.com
415-264-7230

23 February 2020

Jessica Hankins
Public Works Department
950 Maidu Ave. Suite 170
Nevada City, CA 95959

Via email: jessica.hankins@co.nevada.ca.us

Re: Edwards Crossing Bridge

Dear Ms. Hankins,

Thank you for your email of February 7, 2020, giving us the opportunity to comment on the proposed replacement of the Edwards Crossing Bridge. This matter was discussed at our February 21 meeting.

The Public Works Department is to be commended for deciding to retain the existing bridge, which was registered as a historical landmark by the Board of Supervisors in 1995, NEV 95-03.

As for the two proposed alternatives, the Commission voted unanimously in favor of Alternative 2 and in opposition to Alternative 1. As you are probably aware, situated near the southern approach to the existing bridge are the remains of the historic



Edwards Hotel and some other structures. Alternative 1 would likely interfere with those historic remains.

Whichever alternative is selected, care should be taken in connection with any work to convert the existing bridge into pedestrian access, not to disturb the historically significant area on the south side. Commission Consultant Chuck Scimeca is familiar with this area and stands ready to assist your department in planning its work.

Yours truly,



Bernard Zimmerman, Chair

cc: Chuck Scimeca





San Juan Ridge Taxpayers Association

P.O. Box 421, North San Juan, CA 95960

(530) 478-1941 info@sjrtaxpayers.org www.sjrtaxpayers.org

March 13, 2020

Attention: Jessica Hankins Public Works

Copy: Sue Hoek, District 4 Supervisor

Edwards Crossing Bridge Project Comments from the San Juan Ridge Taxpayers Association

The San Juan Ridge Taxpayers Association (SJRTA) is very interested in being kept informed of the Edwards Crossing Bridge Project. Edwards Crossing is an important transportation route linking the Ridge with the rest of Nevada County and intense summer recreational use of the bridge and river corridor affects the quality of life and safety of those living on the Ridge. That said, we are committed to participating in the planning process for the Edwards Crossing Bridge Project, in accordance with our Mission Statement: The primary purpose of the San Juan Ridge Taxpayers Association is to promote the environmental, social and economic well-being of the San Juan Ridge community, located in Nevada County, California.

The SJRTA began in 1972 when a few dozen local residents founded the San Juan Ridge Study Group to explore issues of community concern. Meetings focused on issues such as county planning and building department policies, permits, and code requirements for owner/builders; fire preparedness; forestry practices; and involvement with the Ridge's public schools. In 1975 the group founded the SJRTA; membership includes residents and non-resident landowners of the San Juan Ridge and other concerned citizens. The Association accomplishes its purpose through research, education, analysis, community outreach and advocacy. Our current focus is the proposed reopening of the San Juan Ridge Mine and fire preparedness on the Ridge.

General comments

We appreciate the opportunity to comment on early planning documents related to Edwards Crossing. We recognize the finding of the State's Bridge Inspection Report and Structure Inventory and Appraisal Report of December 6, 2017 that the existing historic bridge is rated structurally deficient, requiring a replacement bridge. We believe that a historic bridge such as Edwards Crossing should be retained and maintained as a pedestrian bridge. Due to the extensive site use by visitors to the Yuba River at Edwards Crossing there are multiple emergency incidents at the site every year. Providing a two lane bridge that has a load limit for emergency access vehicles would improve the ability for emergency crews to respond to incidents and would allow these emergency vehicles to move across the bridge.

The Edwards Crossing location receives thousands of visitations from river goers yearly, mainly during the summer months, with especially high volumes of people during weekends and holidays. Intense congestion at the site and a lack of ability to effectively address the overuse of the site makes the crossing through the canyon inconvenient at best and dangerous at worst. Although not in the scope of the NOP we urge the County, State Parks, and BLM to come up with a site use plan for the Edwards

Crossing site. While a new bridge with two lanes and a better location will address structural and emergency vehicle issues- parking, fire, sanitation, and communication issues as well as general overuse issues will remain at the site. We feel this is an excellent opportunity to begin/extend a conversation about having a multi-agency site use plan.

Existing Bridge

We would like to see the existing bridge maintained as a pedestrian bridge and receive the necessary repairs to remain safe for pedestrians and to maintain the aesthetic historic quality that it has today. This would be our suggestion for either of the proposed alternatives.

Alternate 1

We assume that Bridge Alternate 1 would be a less costly bridge but do not know the extent of the construction costs as it relates to the surrounding geology and to the canyon geometry. Bridge Alternate 1 would be further out of the riparian zone than the historic bridge. However, we are concerned that Alternate 1 would still be located in the riparian zone and could see construction and long term impacts to that zone. Alternate 1 would still be within the parking area on the south side of the river and would continue to cause and may enhance bottle necks due to parking and heavy site use during summer months.

Alternate 2

We assume that Bridge Alternate 2 would be the more costly option and would like to have a better picture of if the funding would be available for this bridge option. From the scoping presentation on February 27, it sounds like the funding is available if it is determined through the environmental review process that this alternate is the best project. Alternate 2 would be entirely out of the riparian zone and would appear to have the least riparian zone impacts during construction and over the life of the bridge. This bridge option would be entirely out of the parking zone on the south side of the river. This option may have the greatest impacts to parking on the north side of the river due to the lack of space for vehicles to turn around. There may be a potential turn-around area where the existing BLM gate is now (where the proposed temporary construction access road would come off of N. Bloomfield). This could help minimize parking availability and impacts of the project. Potential biological, hydrological, and water quality impacts of the temporary construction access road should be assessed and mitigated.

Potential environmental effects

We recognize that consultant assessments on many required elements of the CEQA and NEPA documents are not yet available. We intend to comment more fully as those documents are made available. Briefly, consider the following:

Aesthetics

We would like to see the historic aesthetics of the original bridge maintained as a pedestrian bridge. Maintenance of this bridge will be required to maintain the integrity and aesthetic quality of this bridge.

Hydrology and Water Quality – We support maximum protections of the river as it relates to the hydrology and water quality of the South Yuba River. Construction projects of this magnitude have direct effects on downstream water quality via enhanced erosion and instream disturbance leading to reduced water clarity, some of which is impossible to fully mitigate even with current mitigation

standards. All potential erosion and water quality impacts should be mitigated to the greatest extent possible while maintaining the practical and timely nature to minimize total impact time.

Land Use and Planning

We support the creation of a multi-agency site-use plan that would dovetail with the selected bridge construction alternative.

Biological Resources

Known populations of Foothill Yellow Legged Frogs exist downstream of the Edwards Crossing bridge. Breeding populations are known to use Spring Creek and the mainstem river for laying eggs. Studies by geomorphologist Sarah Yarnell in the 1990's and early 2000's document Yellow Legged frog populations downstream of the project site. We recommend full assessment of current populations, habitat, and breeding locations be a part of any environmental resource assessment.

Public Services

Public services of the site should be addressed in a site use plan. These include bathroom facilities, garbage containers, and emergency call access at a minimum.

Wildfire

Wildfire should be addressed in a site use plan. Visitors to the site have had campfires that have burned out of control. The large stretch of south facing canyon on BLM land is a fire hazard that due to fire suppression has been allowed to build up high levels of fuel loads that threaten the San Juan Ridge community. A site use plan could include fuels reduction mitigation projects that protect the communities surrounding the site.

Recreation

Recreation should be addressed in a site use plan. At the very least projections should be made to estimate future site use as visitation increases.

Thank you for your time and careful consideration in these matters. The Edwards Crossing bridge site is a powerful landmark for many people in the community and for those that come to visit it. We appreciate the collaborative approach to this project.

Sincerely,

Sol Henson
President, San Juan Ridge Taxpayers Association

And the Taxpayers Board:
Badri Matlock- Treasurer
Sara Greensfelder- Secretary
Rhea Williamson
Daniel Fink



SOUTH YUBA RIVER CITIZENS LEAGUE

March 13, 2020

Jessica Hankins, Project Manager
Nevada County Department of Public Works
950 Maidu Avenue, Suite 170
Nevada City, CA 95959

Re: Nevada County Edwards Bridge Replacement Project NOP Scoping Comments

Dear Ms. Hankins:

The South Yuba River Citizens League (SYRCL) respectfully submit comments and recommendations for the initial scoping process in response to the Notice of Preparation (NOP) by Nevada County (County) for the Edwards Bridge Replacement Project (Project) environmental review process as required by the California Environmental Quality Act (CEQA). We request that these comments be received regarding the substance and process of the environmental review process, and the scope of the resulting Draft Environmental Impact Report (DEIR) document as compliant with CEQA.

For summary, the main points of the comments are as follows:

- a) General Concerns – A Wild & Scenic River
- b) Project Alternatives
- c) Water Quality Impacts
- d) Land Use and Forest Impacts
- e) Biological Resources Impacts
- f) Recreation Impacts
- g) Cultural and Historic Resources Impacts

Overall, SYRCL thanks the County for pursuing this Project and hopes that the subsequent environmental review is robust and protective of the Wild and Scenic South Yuba River.

Introduction

SYRCL was founded in 1983 by grassroots activists determined to protect the South Yuba River from dams. Ultimately, SYRCL won permanent protections for 39 miles of the South Yuba River under California's Wild and Scenic Rivers Act.¹ Today, SYRCL is the central hub of community activism to protect, restore, and celebrate the Yuba River watershed. With 37 years of achievements,

¹ Public Resources Code § 5093.50 et seq.

3,500 members and 1,500 active volunteers, SYRCL is doing great things for the Yuba River watershed. Some of our work includes restoring wild salmon populations, meadow restoration, and inspiring activism across the globe with our environmental film festival.

SYRCL's mission is to unite the community to protect and restore the Yuba River watershed. As part of that mission, SYRCL is dedicated to tracking, engaging and taking positions as needed in public policy, planning, and collaborative processes that impact the Yuba River watershed.² We participate in the environmental review process of the Edwards Bridge Project to fulfill that mission.

Additionally, SYRCL also recognizes that the State's Bridge Inspection Report and Structure Inventory and Appraisal Report found the bridge structurally deficient, thus requiring a replacement bridge. SYRCL believes that the bridge replacement project is necessary for this community.

General Concerns – A Wild & Scenic River

SYRCL would like to first acknowledge that this Project is occurring on the portion of the South Yuba River that is protected by the California Wild and Scenic Rivers Act (Act).³ In 1999, "[t]he Legislature add[ed] the South Fork Yuba River from Lang Crossing to its confluence with Kentucky Creek below Bridgeport to the state system."⁴

The Act protects this portion of the South Yuba River. Specifically, the Act describes that "Wild" river segments are *free of impoundment and generally are inaccessible except by trail, with primitive watersheds or shorelines and unpolluted waters*. "Scenic" river segments are free of impoundment, with shorelines or watersheds still largely primitive and shorelines largely undeveloped but accessible in places by roads . . . The classification terms are consistent with the National Wild & Scenic Rivers Act, and *represent the existing development, particularly shoreline development, not a description of any particular extraordinary values identified for the potential or designated river.*⁵

The Edwards Bridge was originally built in 1904, many years before Wild & Scenic protections were established. However, this does not exempt this Project from recognizing that this portion of the River is protected by the Act.

The California Department of Transportation (Caltrans) published the Standard Environmental Reference (SER), and Volume 1, Chapter 19 specifically lists requirements and recommendations for transportation and infrastructure projects that occur in California Wild & Scenic Rivers.⁶ While

² See SYRCL's Strategic Plan 2019-2023, River Advocacy: General, Objective 1.1, p. 17.

³ Public Resources Code § 5093.50 et seq; § 5093.54(g)(1), SB-496, Sher. For a complete list of California Wild and Scenic Rivers, please visit the CalTrans website.

⁴ Evans, Steven and Ron Stork, Friends of the River Memorandum, "The California Wild & Scenic Rivers Act," 2005, updated 2017, p. 16.

⁵ *Id.* at p. 2.

⁶ California Department of Transportation (Caltrans), Standard Environmental Reference (SER). "The Standard Environmental Reference (SER) is an on-line resource to help state and local agency staff plan, prepare, submit, and evaluate environmental documents for transportation projects. The SER contains information appropriate to all transportation projects developed under the auspices of Caltrans, and to all local agency highway or local streets and roads projects with funding or approvals by the Federal Highway Administration (FHWA)." For more information, please visit <https://dot.ca.gov/programs/environmental-analysis/standard-environmental-reference-ser>

the Act does not require a special report for this Project, Caltrans does specify that “[i]nput from resource agencies during the early coordination meeting will determine whether or not an official finding or statement must be included in the environmental document.” In the Notice of Preparation (NOP), the County did not acknowledge that this project is taking place in this segment of the Yuba River watershed. SYRCL would like the County to address this in the DEIR, or ideally before the report is released.

Additionally, SYRCL would like to emphasize that Caltrans recommends the County “consider alternatives that avoid impacts to Wild and Scenic Rivers.” Additionally, for activities that may occur during construction, the “[r]esident Engineer should refer to the environmental document and the environmental commitment record (ECR) in order to avoid impacts on rivers designated as Wild and Scenic.” SYRCL urges the County to take these recommendations seriously while preparing the DEIR. Additionally, SYRCL requests the County formally consult the California Natural Resources Agency, the Caltrans SER document as well as all other appropriate agencies to make sure that the environmental review process is compliant with all applicable federal and state laws, and protective of this Wild and Scenic river.

Project Alternatives

SYRCL thanks the County for including both Project Alternatives 1 and 2 in the original scoping document.⁷ A variety of alternatives will provide this community with a robust analysis, and subsequent flexibility, for an evolving regulatory future while still protecting the Yuba River watershed. However, based on the description and locations of the proposed Alternatives 1 and 2, SYRCL believes that “Alternative 2: New Bridge 1,000 feet upstream” would be the more protective and less environmentally impactful bridge replacement alternative for Edwards Bridge. The reasons are two-fold.

First, SYRCL believes that Alternative 2’s design, location and height would greatly reduce environmental issues associated with bridge construction, more than Alternative 1. While Alternative 1 would still place the bridge above the high-water river level, Alternative 2 would avoid the sensitive riparian zone altogether due to the higher elevation and “fits well into the geometry of the canyon.”⁸

Additionally, the new Alternative 2 “bridge avoids foundations near the river, thus avoiding some of the hydraulic concerns associated with Alternative 1.” This improved safety upgrade also benefits the river and riparian corridor long term because there will be less risk of falling debris as well as enhanced longevity of the bridge that prevents future construction impacts.

Regardless of the County’s preferred alternative, SYRCL still requests the County conduct robust environmental analysis of the Project’s potential environmental impacts as listed below on behalf of the Yuba River watershed and the Wild & Scenic South Yuba River.

⁷ Section 15126.6 of the State CEQA Guidelines, an EIR must “describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project and evaluate the comparative merits of the alternatives.” As required by CEQA, the EIR will evaluate a No Project alternative and the alternatives described above.

⁸ NOP, p. 2.

Impacts on Water Quality

Bridge replacement projects are intensive and costly processes for both our community and the Yuba River watershed. Therefore, SYRCL is concerned about the specific water quality impacts, both short term and long term, from the Project. Specifically, the increase of soil and erosion from Bridge construction and legacy mining impacts in the Yuba River watershed.

SYRCL thanks the County for noting that the new bridge will “involve stream channel work” in the NOP and therefore will prepare a Water Quality Assessment Report to “evaluate the potential effects a new bridge may have on the South Yuba River and other drainages and water resources.”⁹ We request the Report extensively discuss the impacts listed below.

Erosion and Sedimentation

SYRCL thanks the County for noting that “[t]here will be ground disturbance and excavation to place abutments and build the new bridge.”¹⁰ Erosion and increase in sedimentation can occur from major construction sites, such as a replacement bridge project. Here, this is of particular concern due to the “hairpin” turns and lack of sufficient staging space for construction crews near the existing bridge. SYRCL urges the County to consider those limitations when examining the risks of increased erosion and sedimentation from the Project and recommend mitigation measures that would be associated with storm water pollution prevention plans (SWPPP).¹¹

Legacy Mining Water Quality Impacts

The mercury lost to the environment during the hydraulic mining era still persists in the Sierra Nevada, including the South Yuba River.¹² Unfortunately, due to use of mercury in hydraulic mining, loss of mercury during the Gold Rush was estimated to be 10 to 30 percent per season,¹³ totaling about 10,000,000 pounds across California.¹⁴

Today, hundreds of abandoned hydraulic mine sites remain, leaving thousands of acres of largely barren soil contaminated with mercury and exposed during large storms. The South Yuba River is 303(d) listed for mercury contamination.¹⁵ During rain events, these areas are highly susceptible to surface erosion, creating highly turbid run-off that contributes elevated levels of metals and sediments to our headwater tributary streams.

⁹ NOP, p. 2.

¹⁰ NOP, p. 2.

¹¹ Houser, D.L., Pruess, H. The effects of construction on water quality: a case study of the culverting of Abram Creek. *Environ Monit Assess* 155, 431–442 (2009). <https://doi.org/10.1007/s10661-008-0445-9>.

¹² James, Allan L. 2005. Sediment from Hydraulic Mining Detained by Englebright and Small Dams in the Yuba Basin. *Geomorphology* 17(1-2):202-226.

¹³ Bowie, A.J. 1905. A practical treatise on hydraulic mining in California: New York, Van Nostrand, p. 313.

¹⁴ Churchhill, R.K.. 2000. Contributions of mercury to California’s environment from mercury and gold mining activities; Insights from the historical record, in Extended abstracts for the U.S. EPA sponsored meeting, Assessing and Managing Mercury from Historic and Current Mining Activities, November 28-30, 2000, San Francisco, Calif., p. 33-36 and S35-S48.

¹⁵ See 33 U.S. Code § 1313 (d).

Here, depending on the extent of the stream work and construction disturbance, this Project could not only increase sedimentation and erosion, but depending on timeline of construction and storm events, also disturb contaminated land. Low levels of mercury can bioaccumulate to dangerously high levels in top predatory fish, posing a health concern for the watershed as well as our community.¹⁶

Additionally, SYRCL has identified three watersheds that potentially contain high levels of mercury and sediment loss – Spring Creek, Shady Creek and Scotchman Creek. These watersheds all lead to the South Yuba River, and will be relevant to the Project due to their location.

SYRCL recently completed two reports as part of work that was funded by the Cosumnes American Bear Yuba (CABY) Integrated Regional Water Management Group in partnership with The Sierra Fund and funded by California Department of Water Resources and The Rose Foundation for Communities and the Environment.¹⁷ We encourage the County to consult these reports when analyzing potential environmental impacts from this Project in the Water Quality Assessment Report.

Impacts on Land Use and Forest Management

As this Project is planned, SYRCL requests the County consider forest health and fire safety. SYRCL thanks the County for identifying “potential effects to wildfire in the area.”¹⁸ The steep slope of the site, coupled with overcrowded forest vegetation and high visitation, make the Yuba River canyon especially vulnerable to the risk of wildfire. In addition to improving emergency access, this Project presents an opportunity to implement some ecological forest thinning in the area to decrease the fire risk associated with construction and potential increased use of the area.¹⁹

Impacts on Biological Resources

SYRCL strongly supports the County’s inclusion of impacts on “Biological Resources.”²⁰ The Bridge replacement project may directly impact the wildlife in our region, specifically native sensitive and threatened species in our watershed.

Sensitive species potentially impacted by degraded water quality or less water available in the ecosystem are the Foothill Yellow Legged Frog, Western Pond Turtle, California Horned Lizard,

¹⁶ Fleck JA, Alpers CN, Marvin-DiPasquale M, Hothem RL, Wright SA, Ellett K, Beaulieu E, Agee JL, Kakouros E, Kieu LH, Eberl DD, Blum AE, May JT. 2011. The Effects of Sediment and Mercury Mobilization in the South Yuba River and Humbug Creek Confluence Area, Nevada County, California: Concentrations, Speciation, and Environmental Fate—Part 1: Field Characterization: U.S. Geological Survey Open-File Report 2010-1325A, 104 p. <http://pubs.usgs.gov/of/2010/1325A/>

¹⁷ See Ronning, K.F., R. Hutchinson. 2018. Mercury and Suspended Sediment in Spring and Shady Creeks: Present Day Impacts from Abandoned Mines; Ronning, K.F., R. Hutchinson. 2018. Scotchman Creek Watershed Assessment: A Focus on Abandoned Mine Impacts.

¹⁸ NOP, p. 2.

¹⁹ NOP, p. 2. “Ultimately, the project will reduce the threat to wildfire by providing greater access to emergency and fire vehicles and an evacuation route for area residents.”

²⁰ NOP, p. 2.

Western Ridged Mussel, River Otter, Beaver, and Osprey. SYRCL thanks the County for working with the California Department of Fish and Wildlife to conduct a protocol-level survey for the foothill yellow-legged frog (FYLF) as required under the California Endangered Species Act (CESA).²¹

Additionally, threatened local species that may be affected are the Layne's ragwort, Vernal pool fairy shrimp, Valley elderberry longhorn beetle, California red-legged frog, steelhead, Chinook salmon²² and North American green sturgeon.²³ A number of these species, mainly the red-legged frog, the Chinook Salmon, the steelhead and green sturgeon, rely on the Yuba River watershed for critical habitat that allows the continued survival of their species.²⁴ Additionally, soil erosion also increases fine-sediment in streams, damaging spawning and rearing habitat for salmon, such as the local spring-run Chinook salmon.²⁵

SYRCL thanks the County for committing to preparing a Natural Environmental Study (NES) to determine the prevalence of such species in the project area as well as develop mitigation measures for any potential environmental impacts.

Impacts on Recreational Use of Edwards Bridge

Over half of the South Yuba River corridor is public land, managed by the California Department of Parks and Recreation (State Parks) and the Bureau of Land Management (BLM).²⁶ State Parks has experienced severe budget cuts in recent years resulting in services being drastically reduced. With an estimated 800,000 people visiting the South Yuba River State Park every year, and the thousands of pounds of trash removed during SYRCL's Annual Yuba River Cleanup, SYRCL is concerned that the South Yuba River is being "loved to death." Edwards Bridge is one of the most popular recreational spots, and heavily impacted by these lack of management resources. Due to the patchwork of ownership, often areas such as Edwards Bridge face what's called "the tragedy of the commons."²⁷

SYRCL therefore strongly supports the County's commitment to prepare a Programmatic 4(f) Evaluation to "identify potential impacts and measures to minimize harm to the South Yuba River State Park" as required under the National Environmental Policy Act (NEPA).²⁸ Additionally, SYRCL believes that this Project provides the County a unique opportunity to examine those impacts and mitigate the harms by implementing a multi-agency site plan that incorporates the new replacement bridge in addition to addressing impacts to parking, restrooms and overall safety concerns for the Edwards Bridge site.

²¹ NOP, p. 2.

²² Spring-run evolutionarily significant unit.

²³ Southern DPS.

²⁴ Carah et al. 2015, p.825.

²⁵ Carah et al. 2015, p.825; citing USDOJ NDIC 2007.

²⁶ NOP, p. 2.

²⁷ Hardin, G. (1968). The Tragedy of the Commons. Science, 162, 1243-1248.

²⁸ NOP, p. 2. See also National Environmental Policy Act (NEPA), 23 U.S.C. 109(h) and 23 U.S.C. 138 (Section 4(f) of the Department of Transportation Act.

Impacts to Cultural and Historic Resources

Finally, SYRCL would like to thank the County for committing to preparing a Historic Resource Evaluation Report (HRER) in order for the existing Edwards Bridge to be eligible to be included in the National Register of Historic Places.²⁹ Preserving the culture and historic elements of the Yuba River watershed is important for our community, and also is less impactful to the South Yuba River. SYRCL requests more detail about the steps to preserve the existing Edwards Bridge in the DEIR.

Conclusion

In closing, we appreciate the County's time and dedication to a robust environmental review of this Project. This community needs a thorough evaluation of overarching environmental impacts from the Edwards Bridge Replacement Project.

We welcome the opportunity to collaborate during the study period. For coordination, clarification or discussion of any matters raised in this letter, please do not hesitate to contact our Executive Director, Melinda Booth, River Policy Manager, Ashley Overhouse, or our River Science Project Manager, Alecia Weisman, by email or phone (530-265-5961).

Sincerely,



Melinda Booth
Executive Director
melinda@yubariver.org



Ashley Overhouse
River Policy Manager
ashley@yubariver.org



Alecia Weisman
River Science Project Manager
alecia@yubariver.org

²⁹ NOP, p. 4.

Hello Jessica:

Thank you for the Edwards Bridge presentations. I attended the first at the Rood Center.

Me – 43 year Ridge resident. Long history resisting the various re-openings of the gold mine in the N. Columbia Diggins, as well as the bad idea of the Incorporation of the Ananda Village.

Nevada County Planning Commissioner for 4 years in the 90s

Board member now of both the Yuba Watershed Institute and SYRCL.

Some points –

The existing bridge is lacy and beautiful. A Concrete pile right next to it would deny the view and be ugly, if cheap, and doesn't solve the road problem on both sides.

The high bridge is better for traffic and for a great view of the old bridge, unspoiled, but is super high tech and scary high, and somehow doesn't fit the canyon.

The high bridge is kind of a "bridge to nowhere" in fact, terribly expensive and connects the halves of an almost nowhere road. Engineered to hold heavy loads, as necessary of course, but nobody sane would drive a fire tanker down the south approach to either bridge.

The high bridge makes the wildfire escape passage somewhat better probably. But if caged for suicide prevention it would be so ugly! The enterprising would-be-dead can easily climb over and around any cage and jump anyway

Both options MUST have railings that do not block the view!!!!

I can easily see where the high bridge option came from, both location and connection approaches, but I wonder if it really should be a concrete arch?

On balance I think that the high bridge is a better concept for several reasons, but I wonder about the design choice. A steel arch echoing the old bridge just higher, longer, stronger would be less jarring than the concrete arch rainbow. The construction of either concrete bridge makes for serious problems making and delivering the concrete! A steel arch could be a kit assembled with cranes on both sides, and only the end piers would require concrete.

For my money the parking problem is not solvable at Edwards and the sooner it is rigidly restricted and enforced in a specific area on the south side, the better. With the high bridge the parking would at least all be below the new roadway and not blocking traffic – one hopes!

The best solution would prohibit private car parking completely and provide a parking lot up near Diamond Arrow Camp and a van service to the river.

I believe that the whole river parking mess requires a paid one-year permit similar to the snow parking permits, from Bridgeport all the way to Edwards and in between. Tow trucks standing by. Sooner or later there will be a disaster at one of the summer river crossings! Probably caused by fire. Purdon is the most likely place. That is a god-awful mess all summer, as well as a homeless camp scene that is out of control. But please do not mess with the Purdon bridge!

All river crossing sites need solid well-managed and maintained toilet facilities!!!!

The new additional traffic will require the County to seriously improve both roadways north and south. Is that factored in at all?

Thanks –

Kurt Lorenz
530-265-9178
klorenz@gotsky.com



EDWARDS CROSSING BRIDGE REPLACEMENT

Notice of Preparation (NOP)

Public Comments

Review Period 2/11/20 – 3/13/20

Received via comment cards at the February 26 and 27, 2020 NOP meetings held at the Nevada County Board Chambers and North Columbia Schoolhouse, respectively

Comment: Cynthia Bailey

What kind of additional recreation activities will #2 bridge generate; parking, new trails, people will want to stop at new bridge for river access.

Careful consideration to water health please.

Parking & recreation development at the same similar time; it is needed now, might as well address it too.

Comment: Shelly Byers

What time of year would you be considering construction to take place? During summer months parking is high (and some people are stupid) if there is a fire on the ridge egress would be impacted by construction site.

Option 2 would increase possible suicide attempts. Thank you.

Comment: Julie Childs

I am concerned about the upstream option. It would seriously impact one of the most pristine swimming holes accessible down there. I've been swimming there for 38 years, taught my girls to swim there. It would be too sad. And, of course, it costs way too much just to go a tiny bit faster on delicate roads.

Comment: Matthew Coulter

#1 Jump to death! 3rd largest elder population. We were #1 for suicides in California, now 15th? Back to #1!

#2 Put more abuse, trash, dog s#*t, BBQs, Bridgeport? Try it!

#3 1 pole, 1 tree, 1 landslide, 1 hippy bus. Road closed! (have saw, will travel?)

Comment: Molly Johnson

I would like the new bridge to look just like old bridge, 2 with the same design. It is very important to be able to see the river as you cross the bridge (worst part about new 49 bridge!). Any amount of new parking will be helpful.

Comment: Darlene Markey

My vote: Alternative 2

Why – keep integrity of old bridge, increase parking – it's gong to increase even thought we don't want it.

Use dirt side as landing for contactors and construction material – people will park everywhere and anywhere. They will and do ignore all signs and block access.

Increase parking on dirt side – move gate down – create a parking pad

Why – Does not, or has less, impact area near old bridge on pave side. It is habitat for ringtail cat, fritillaria, bleeding hearts.

Keeps tourists below bridge and maybe that direction will reduce chances of impacts upstream. Shortens road for residents and allow us to drive out without the crazy, unsafe, crowded drive through tourists.

A note – on the dirt side there were caves there that were closed off – so the hillside near the top where Alternative 2 new bridge would go can be blown up (sorry weird word) to create parking.

Can there be road improve for a short distance above. The temporary construction access will be used for parking and keep tourists off new bridge.

Comment: Michael Puetz

Dirt side needs to be improved – paved/graveled/anything to maintain integrity and safe access.

There are anywhere from 75-200 vehicles parked here during summer.

Comments received via email

Mon 2/10/2020 3:08 PM

Bernie

On brief review of alternate #1's proposed bridge location, I have a concern. Placing it only 60 feet upstream would potentially destroy, which I believe to be, the historical foundations of the old Edwards Hotel and rock walls that are located on the south side of the crossing. This site is on the right hand side of the road as you approach the Edwards bridge from Nevada City. It is likely that a State Park archaeological survey has not been done here, since the property is located on public lands (BLM). Possibly, BLM has done one. I will check at the next South Yuba River Cohort meeting with BLM and try and determine if they have done one.

I would like to see the Alternate #2 bridge location as the selection. This location being farther away from the Edward's historic hotel and bridge site, allows better protection for the site, offers the public more parking and better access to the Edward's trail system and is much better for safe traffic flow and emergency vehicle access to both sides of the river. There may be some gold rush era remnants at that location as well, only a survey would be conclusive.

The current Edwards Bridge location is known to have many cultural remnants and, in my opinion, should be avoided for new bridge selection anywhere near it.

Chuck Scimeca

13198 Owl Creek Road
Nevada City, CA 95959
530 277-1573 bus.
530 477-6750 fax

On Friday, February 7, 2020, 04:55:50 PM PST, Bernard Zimmerman
<berniezimmerman@me.com> wrote:

Anyone have any thoughts about the Edwards crossing bridge EIR. Apparently the existing historic bridge will remain. Bruce, I realize you won't be at the next meeting, but can you take a careful look and let me know if you see any problems in advance of the meeting. Thanks

Fri 2/28/2020 9:29 AM

Jessica,

Thanks for the NOP meeting on the 27 of Feb. at the NCSCC. After the meeting it was obvious to me that the alternate 2 bridge (furthest up-river) was the preferred choice. The benefits of an isolated and larger parking lot along with the elimination of the hair-pin curve were convincing.

One detail that needs to be included in this project, if not immediately addressed, would be to have a turn-around area for fire trucks at the north end of the old bridge. Emergence vehicles respond to this point for river rescues, medical aids and fires. Fire trucks have to be able to quickly turn around in order to be dispatched to this vital location. At this time it is not a good situation.

Please include me on your list for email updates as this project proceeds.

Rich Mead ... (530 265-6295t

18554 Cruzon Grade Rd.

Nevada City, CA 95959

Fri 2/28/2020 1:34 PM

Dear Chris:

Thanks for the attached follow up info on the meeting and the bridge replacement details to date. You and your staff did a great job presenting the project at the meeting on Wed. At this point in time I do not have any additional comments for you or Jessica. I'm the guy that asked questions about the costs to build the bridges and the funding source.

Regards.

Gary Vanderpol

Mon 3/2/2020 12:05 PM

Here are examples of what I'm talking about. Both of these are vastly larger projects, but scaled way down they would be visually much better than a concrete arch and would "fit" with the existing bridge, as well as offer construction benefits.



of the Forrest Hill Bridge over American River's north fork, Auburn,



to of the New River Gorge Bridge near Fayetteville, West Virginia

The New River Bridge would be perfect in a much smaller size. But the mid-span modified arch/truss of the Forest Hill Bridge would be far better than any concrete structure. Anything

with a lacy steel structure against the background, and the load bearing being fully beneath the roadway, would be better than a concrete bridge in that location. I realize that the rendering showed an arch and the load bearing beneath the roadway, but it doesn't "fit" the nature of the location. I urge you to think about a steel arch in one form or another.

Kurt Lorenz
former Nev. County Planning Commissioner
Member, Board of Directors of SYRCL
530-265-9178
klorenz@gotsky.com

Wed 3/11/2020 11:52 AM

We are residents at 15285 N. Bloomfield. We appreciate that the bridge needs replacing, but we are concerned about maintaining safe access to the river. We are in favor of Alternative 2. But, we feel blocking the road on the north side from the new bridge (Alt 2) to the river will cause more parking issues. When the existing south side parking fills up, a lot of people park on the north side. Without adequate spaces, people block the roads which is a safety issue. We would suggest as part of the plan, the parking issue needs to be addressed as parking rules are not enforced.

Thanks,

Jon & Sara McCoy

Fri 3/13/2020 4:57 PM

We the undersigned members of the Grizzly Hill Firewise Community recommend Alternative #2 for the new Edwards Crossing Bridge given the Environmental Review is favorable for this alternative.

Alternative #2 would allow large fire and emergency vehicles to use the bridge. Alternative #1 would continue to use the sharp hairpin turn on the south side which would be restrictive to longer vehicles even though the weight limit would be improved.

Alternative #2 would facilitate easier and more efficient access/egress for evacuation in emergencies.

In addition, we would like to see consideration given to either 1) angling the bridge from the last hairpin turn to a point further downstream on the north side, or 2) constructing the north side gate further downstream in line with existing BLM gate (where the temporary access road would begin) and creating a larger turn around area there. We also ask that any platforms developed for construction materials be left to facilitate parking. These alternatives would preserve more than 30 parking spaces that are critically needed in the summer when tourist

activity is high. Tourists affect our small community, financially and safety wise. Dangerous and ignorant driving, parking obstructions that are not cited or regulated often enough prohibit emergency vehicle access.

Although we understand the funds for this project are designated for the bridge only, we urge you to work with other agencies to create much needed improvements and access to and egress from this area beyond the bridge project itself. Wear and tear on North Bloomfield and Grizzly Hill Roads get minimal attention from the county. A larger bridge will only heighten this problem, especially due to large trucks/vehicles having access. It would be ideal that some funding be pre-allocated to road maintenance. Building a new bridge without future planning and funding will only exacerbate the problems that already exist.

Respectfully submitted,

Nancy Henson, Ralph Henson, Solomon Henson, Susan Brighton, James Brighton, Ryan Roycraft, Michael Romano, Michael Puetz, Darlene Markey, Pam Kline, Forrest Simpson, Laurel Simpson

Appendix B: Air Quality Emissions Model

Road Construction Emissions Model, Version 9.0.0

Daily Emission Estimates for -> Edwards Crossing Bridge Replacement																
Project Phases (Pounds)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	PM10 (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	PM2.5 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	SOx (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)	N2O (lbs/day)	CO2e (lbs/day)
Grubbing/Land Clearing	0.82	9.77	10.55	10.44	10.44	0.44	10.00	2.31	2.41	0.33	2.08	0.04	3,830.07	0.58	0.32	3,938.96
Grading/Excavation	6.60	60.70	63.06	12.60	12.60	2.60	10.00	4.39	4.39	2.31	2.08	0.16	15,977.17	4.68	0.27	16,175.38
Drainage/Utilities/Sub-Grade	4.64	43.16	43.94	11.75	11.75	1.75	10.00	3.67	3.67	1.59	2.08	0.11	10,509.67	2.70	0.14	10,617.82
Paving	0.82	12.74	8.12	0.39	0.39	0.39	0.00	0.33	0.33	0.33	0.00	0.02	2,324.57	0.56	0.08	2,361.71
Maximum (pounds/day)	6.60	60.70	63.06	12.60	12.60	2.60	10.00	4.39	4.39	2.31	2.08	0.16	15,977.17	4.68	0.32	16,175.38
Total (tons/construction project)	0.59	5.58	5.66	1.35	1.35	0.23	1.12	0.44	0.44	0.21	0.23	0.01	14,255.72	0.39	0.03	14,443.36

Total Emission Estimates by Phase for -> Edwards Crossing Bridge Replacement																
Project Phases (Tons for all except CO2e, Metric tonnes for CO2e)	ROG (tons/phase)	CO (tons/phase)	NOx (tons/phase)	PM10 (tons/phase)	Total PM10 (tons/phase)	Exhaust PM10 (tons/phase)	Fugitive Dust PM10 (tons/phase)	PM2.5 (tons/phase)	Total PM2.5 (tons/phase)	Exhaust PM2.5 (tons/phase)	Fugitive Dust PM2.5 (tons/phase)	SOx (tons/phase)	CO2 (tons/phase)	CH4 (tons/phase)	N2O (tons/phase)	CO2e (MT/phase)
Grubbing/Land Clearing	0.01	0.13	0.14	0.14	0.14	0.01	0.13	0.03	0.03	0.00	0.03	0.00	50.56	0.01	0.00	47.17
Grading/Excavation	0.35	3.20	3.33	0.67	0.67	0.14	0.53	0.12	0.23	0.12	0.11	0.01	843.59	0.25	0.01	774.80
Drainage/Utilities/Sub-Grade	0.21	1.99	2.03	0.54	0.54	0.08	0.46	0.17	0.17	0.07	0.10	0.01	485.55	0.12	0.01	445.02
Paving	0.02	0.25	0.16	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.00	0.00	46.03	0.01	0.00	42.42
Maximum (tons/phase)	0.35	3.20	3.33	0.67	0.67	0.14	0.53	0.12	0.23	0.12	0.11	0.01	843.59	0.25	0.01	774.80
Total (tons/construction project)	0.59	5.58	5.66	1.35	1.35	0.23	1.12	0.44	0.44	0.21	0.23	0.01	14,255.72	0.39	0.03	14,443.36

Notes:													
Project Start Year -> 2026													
Project Length (months) -> 12													
Total Project Area (acres) -> 5													
Maximum Area Disturbed/Day (acres) -> 1													
Water Truck Used? -> Yes													
Total Material Imported/Exported Volume (yd ³ /day)													
Daily VMT (miles/day)													
Phase	Soil	Asphalt	Soil Hauling	Asphalt Hauling	Worker Commute	Water Truck							
Grubbing/Land Clearing	341	0	480	0	200	40							
Grading/Excavation	106	0	150	30	1,120	40							
Drainage/Utilities/Sub-Grade	2	0	30	0	720	40							
Paving	1	5	30	30	320	40							

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

The CO2e emissions are reported as metric tons per phase.

Road Construction Emissions Model, Version 9.0.0

Daily Emission Estimates for -> Edwards Crossing Bridge Replacement														
Project Phases (Pounds)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	SOx (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)	N2O (lbs/day)	CO2e (lbs/day)
Grubbing/Land Clearing	0.82	9.66	9.69	10.41	0.41	10.00	2.40	0.32	2.08	0.03	3,392.90	0.58	0.25	3,481.30
Grading/Excavation	6.60	60.67	62.85	12.60	2.60	10.00	4.39	2.31	2.08	0.16	15,867.87	4.68	0.26	16,060.96
Drainage/Utilities/Sub-Grade	4.64	43.12	43.94	11.75	1.75	10.00	3.67	1.59	2.08	0.11	10,499.94	2.70	0.14	10,607.88
Paving	0.82	12.70	8.12	0.39	0.39	0.00	0.33	0.33	0.00	0.02	2,313.24	0.56	0.08	2,350.05
Maximum (pounds/day)	6.60	60.67	62.85	12.60	2.60	10.00	4.39	2.31	2.08	0.16	15,867.87	4.68	0.26	16,060.96
Total (tons/construction project)	0.88	8.36	8.46	2.03	0.35	1.68	0.66	0.31	0.35	0.02	2,120.26	0.59	0.04	2,145.88

Total Emission Estimates by Phase for -> Edwards Crossing Bridge Replacement														
Project Phases (Tons for all except CO2e, Metric tonnes for CO2e)	ROG (tons/phase)	CO (tons/phase)	NOx (tons/phase)	Total PM10 (tons/phase)	Exhaust PM10 (tons/phase)	Fugitive Dust PM10 (tons/phase)	Total PM2.5 (tons/phase)	Exhaust PM2.5 (tons/phase)	Fugitive Dust PM2.5 (tons/phase)	SOx (tons/phase)	CO2 (tons/phase)	CH4 (tons/phase)	N2O (tons/phase)	CO2e (MT/phase)
Grubbing/Land Clearing	0.02	0.19	0.19	0.21	0.01	0.20	0.05	0.01	0.04	0.00	67.18	0.01	0.00	62.53
Grading/Excavation	0.52	4.81	4.98	1.00	0.21	0.79	0.35	0.18	0.16	0.01	1,256.74	0.37	0.02	1,153.98
Drainage/Utilities/Sub-Grade	0.32	2.99	3.05	0.81	0.12	0.69	0.25	0.11	0.14	0.01	727.65	0.19	0.01	666.90
Paving	0.02	0.38	0.24	0.01	0.01	0.00	0.01	0.01	0.00	0.00	68.70	0.02	0.00	63.32
Maximum (tons/phase)	0.52	4.81	4.98	1.00	0.21	0.79	0.35	0.18	0.16	0.01	1,256.74	0.37	0.02	1,153.98
Total (tons/construction project)	0.88	8.36	8.46	2.03	0.35	1.68	0.66	0.31	0.35	0.02	2,120.26	0.59	0.04	1,946.73

Notes:														
Project Start Year -> 2026														
Project Length (months) -> 18														
Total Project Area (acres) -> 5														
Maximum Area Disturbed/Day (acres) -> 1														
Water Truck Used? -> Yes														
Total Material Imported/Exported Volume (yd ³ /day)														
Daily VMT (miles/day)														
Phase	Soil	Asphalt	Soil Hauling	Asphalt Hauling	Worker Commute	Water Truck								
Grubbing/Land Clearing	227	0	360	0	200	40								
Grading/Excavation	71	0	120	30	1,120	40								
Drainage/Utilities/Sub-Grade	1	0	30	0	720	40								
Paving	1	3	30	30	320	40								

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

The CO2e emissions are reported as metric tons per phase.

Appendix C: CNDDDB, USFWS, and CNPS Special Status Species Database Results



Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad IS (North Bloomfield (3912038) OR Nevada City (3912131) OR Washington (3912037) OR Alleghany (3912047) OR Pike (3912048) OR Camptonville (3912141))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
bald eagle <i>Haliaeetus leucocephalus</i>	ABNKC10010	Delisted	Endangered	G5	S3	FP
Brandegee's clarkia <i>Clarkia biloba ssp. brandegeeeae</i>	PDONA05053	None	None	G4G5T4	S4	4.2
brownish beaked-rush <i>Rhynchospora capitellata</i>	PMCYP0N080	None	None	G5	S1	2B.2
Butte County fritillary <i>Fritillaria eastwoodiae</i>	PMLIL0V060	None	None	G3Q	S3	3.2
California red-legged frog <i>Rana draytonii</i>	AAABH01022	Threatened	None	G2G3	S2S3	SSC
Cantelow's lewisia <i>Lewisia cantelovii</i>	PDPOR04020	None	None	G3	S3	1B.2
coast horned lizard <i>Phrynosoma blainvillii</i>	ARACF12100	None	None	G4	S4	SSC
Cooper's hawk <i>Accipiter cooperii</i>	ABNKC12040	None	None	G5	S4	WL
Darlingtonia Seep <i>Darlingtonia Seep</i>	CTT51120CA	None	None	G4	S3.2	
elongate copper moss <i>Mielichhoferia elongata</i>	NBMUS4Q022	None	None	G5	S3S4	4.3
felt-leaved violet <i>Viola tomentosa</i>	PDVIO04280	None	None	G3	S3	4.2
foothill yellow-legged frog - north Sierra DPS <i>Rana boylei pop. 3</i>	AAABH01053	None	Threatened	G3T2	S2	
fringed myotis <i>Myotis thysanodes</i>	AMACC01090	None	None	G4	S3	
great blue heron <i>Ardea herodias</i>	ABNGA04010	None	None	G5	S4	
great gray owl <i>Strix nebulosa</i>	ABNSB12040	None	Endangered	G5	S1	
inundated bog-clubmoss <i>Lycopodiella inundata</i>	PPLYC03060	None	None	G5	S1	2B.2
northern goshawk <i>Accipiter gentilis</i>	ABNKC12060	None	None	G5	S3	SSC
Sierra blue grass <i>Poa sierrae</i>	PMPOA4Z310	None	None	G3	S3	1B.3
Sierra marten <i>Martes caurina sierrae</i>	AMAJF01014	None	None	G4G5T3	S3	



Selected Elements by Common Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Sierra Nevada mountain beaver <i>Apodonta rufa californica</i>	AMAF01013	None	None	G5T3T4	S2S3	SSC
Sierra Nevada yellow-legged frog <i>Rana sierrae</i>	AAABH01340	Endangered	Threatened	G1	S2	WL
sticky pyrrocoma <i>Pyrrocoma lucida</i>	PDASTDT0E0	None	None	G3	S3	1B.2
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	AMACC08010	None	None	G4	S2	SSC
True's mountain jewelflower <i>Streptanthus tortuosus ssp. truei</i>	PDBRA2G108	None	None	G5T1T2	S1S2	1B.1
western bumble bee <i>Bombus occidentalis</i>	IIHYM24252	None	Candidate Endangered	G3	S1	
western pearlshell <i>Margaritifera falcata</i>	IMBIV27020	None	None	G4G5	S1S2	
western pond turtle <i>Emys marmorata</i>	ARAAD02030	None	None	G3G4	S3	SSC

Record Count: 27

CNPS Rare Plant Inventory

Search Results

30 matches found. Click on scientific name for details

Search Criteria: Quad is one of [3912038:3912131:3912037:3912047:3912048:3912141]

▲ COMMON NAME	SCIENTIFIC NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED	PHOTO
Bacigalupi's yampah	<i>Perideridia bacigalupii</i>	Apiaceae	perennial herb	Jun-Aug	None	None	G3	S3	4.2	Yes	1974-01-01	No Photo Available
Brandegee's clarkia	<i>Clarkia biloba</i> ssp. <i>brandegeae</i>	Onagraceae	annual herb	(Mar)May-Jul	None	None	G4G5T4	S4	4.2	Yes	2001-01-01	No Photo Available
brownish beaked-rush	<i>Rhynchospora capitellata</i>	Cyperaceae	perennial herb	Jul-Aug	None	None	G5	S1	2B.2		1974-01-01	 ©2004 Dean Wm. Taylor
Butte County fritillary	<i>Fritillaria eastwoodiae</i>	Liliaceae	perennial bulbiferous herb	Mar-Jun	None	None	G3Q	S3	3.2		1974-01-01	 ©2009 Sierra Pacific Industries
California lady's-slipper	<i>Cypripedium californicum</i>	Orchidaceae	perennial rhizomatous herb	Apr-Aug(Sep)	None	None	G3	S4	4.2		1980-01-01	 © 2012 Barry Rice
California pitcherplant	<i>Darlingtonia californica</i>	Sarraceniaceae	perennial rhizomatous herb (carnivorous)	Apr-Aug	None	None	G4	S4	4.2		1980-01-01	 © 2021 Scot Loring
Cantelow's lewisia	<i>Lewisia cantelovii</i>	Montiaceae	perennial herb	May-Oct	None	None	G3	S3	1B.2	Yes	1974-01-01	 ©2005 Steve Matson
chaparral sedge	<i>Carex xerophila</i>	Cyperaceae	perennial herb	Mar-Jun	None	None	G2	S2	1B.2	Yes	2016-06-06	 © 2023 Steven Perry

clustered lady's-slipper	<u>Cypripedium fasciculatum</u>	Orchidaceae	perennial rhizomatous herb	Mar-Aug	None	None	G4	S4	4.2		1980- 01-01	 © 2013 Scot Loring
Congdon's onion	<u>Allium sanbornii var. congdonii</u>	Alliaceae	perennial bulbiferous herb	Apr-Jul	None	None	G4T3	S3	4.3	Yes	1994- 01-01	 © 2008 Steven Perry
dubious pea	<u>Lathyrus sulphureus var. argillaceus</u>	Fabaceae	perennial herb	Apr-May	None	None	G5T1T2Q	S1S2	3	Yes	1994- 01-01	No Photo Available
elongate copper moss	<u>Mielichhoferia elongata</u>	Mielichhoferiaceae	moss		None	None	G5	S3S4	4.3		2001- 01-01	 © 2012 John Game
felt-leaved violet	<u>Viola tomentosa</u>	Violaceae	perennial herb	(Apr)May- Oct	None	None	G3	S3	4.2	Yes	1974- 01-01	No Photo Available
giant checkerbloom	<u>Sidalcea gigantea</u>	Malvaceae	perennial rhizomatous herb	(Jan- Jun)Jul- Oct	None	None	G3	S3	4.3	Yes	2012- 07-10	 ©2018 Sierra Pacific Industries
Humboldt lily	<u>Lilium humboldtii ssp. humboldtii</u>	Liliaceae	perennial bulbiferous herb	May- Jul(Aug)	None	None	G4T3	S3	4.2	Yes	1994- 01-01	 © 2008 Sierra Pacific Industries
Hutchison's lewisia	<u>Lewisia kelloggii ssp. hutchisonii</u>	Montiaceae	perennial herb	(Apr)May- Aug	None	None	G3G4T3Q	S3	3.2	Yes	2001- 01-01	 Dean Wm. Taylor 2006
inundated bog-clubmoss	<u>Lycopodiella inundata</u>	Lycopodiaceae	perennial rhizomatous herb	Jun-Sep	None	None	G5	S1	2B.2		1980- 01-01	 © 2021 Scot Loring
Kellogg's lewisia	<u>Lewisia kelloggii ssp. kelloggii</u>	Montiaceae	perennial herb	(Apr)May- Aug	None	None	G3G4T2T3Q	S2S3	3.2	Yes	2013- 10-02	 © 2019 Barry Breckling

long-fruit jewelflower	<u><i>Streptanthus longisiliquus</i></u>	Brassicaceae	perennial herb	Apr-Sep	None	None	G3	S3	4.3	Yes	2007-08-31	 ©2008 Sierra Pacific Industries
Sanborn's onion	<u><i>Allium sanbornii</i></u> var. <u><i>sanbornii</i></u>	Alliaceae	perennial bulbiferous herb	May-Sep	None	None	G4T4?	S3S4	4.2		1994-01-01	 ©2018 Steven Perry
Shevock's copper moss	<u><i>Mielichhoferia shevockii</i></u>	Mielichhoferiaceae	moss		None	None	G2	S2	1B.2	Yes	2001-01-01	No Photo Available
Sierra arching sedge	<u><i>Carex cyrtostachya</i></u>	Cyperaceae	perennial herb	May-Aug	None	None	G2	S2	1B.2	Yes	2015-08-18	No Photo Available
Sierra blue grass	<u><i>Poa sierrae</i></u>	Poaceae	perennial rhizomatous herb	Apr-Jul	None	None	G3	S3	1B.3	Yes	2010-06-10	 © 2012 Belinda Lo
Sierra clarkia	<u><i>Clarkia virgata</i></u>	Onagraceae	annual herb	May-Aug	None	None	G3	S3	4.3	Yes	1974-01-01	No Photo Available
Sierra foothills brodiaea	<u><i>Brodiaea sierrae</i></u>	Themidaceae	perennial bulbiferous herb	May-Aug	None	None	G3	S3	4.3	Yes	2012-11-20	 © 2006 George W. Hartwell
Sierra starwort	<u><i>Hartmaniella sierrae</i></u>	Caryophyllaceae	perennial rhizomatous herb	May-Aug	None	None	G3G4	S3	4.2	Yes	2004-01-01	No Photo Available
Siskiyou Mountains huckleberry	<u><i>Vaccinium coccineum</i></u>	Ericaceae	perennial deciduous shrub	Jun-Aug	None	None	G3Q	S2S3	3.3		1974-01-01	No Photo Available
sticky pyrocoma	<u><i>Pyrocoma lucida</i></u>	Asteraceae	perennial herb	Jul-Oct	None	None	G3	S3	1B.2	Yes	1980-01-01	No Photo Available
True's manzanita	<u><i>Arctostaphylos mewukka</i></u> ssp. <u><i>truei</i></u>	Ericaceae	perennial evergreen shrub	Feb-Jul	None	None	G4T3	S3	4.2	Yes	1984-01-01	 © 2008 George W. Hartwell
True's mountain jewelflower	<u><i>Streptanthus tortuosus</i></u> ssp. <u><i>truei</i></u>	Brassicaceae	perennial herb	Jun- Jul(Sep)	None	None	G5T1T2	S1S2	1B.1	Yes	2016-07-20	 © 2021 Robert E. Preston, Ph.D

Showing 1 to 30 of 30 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2023. Rare Plant Inventory (online edition, v9.5). Website <https://www.rareplants.cnps.org> [accessed 19 September 2023].

From: [Katie Jacobson](#)
To: [Katie Jacobson](#)
Date: Tuesday, September 19, 2023 4:16:00 PM
Attachments: [image001.png](#)

Quad Name **North Bloomfield**

Quad Number **39120-C8**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) -
Eulachon (T) -
sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH -
Chinook Salmon EFH - **X**
Groundfish EFH -
Coastal Pelagics EFH -
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

**See list at left and consult the NMFS Long Beach office
562-980-4000**

MMPA Cetaceans -
MMPA Pinnipeds -



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United States Department of the Interior



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Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To:
Project Code: 2023-0130890
Project Name: Edwards crossing

September 19, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2))

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

(916) 414-6600

PROJECT SUMMARY

Project Code: 2023-0130890
Project Name: Edwards crossing
Project Type: Bridge - Replacement
Project Description: Bridge replacement
Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@39.3301478,-120.98237144631472,14z>



Counties: Nevada County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

BIRDS

NAME	STATUS
California Spotted Owl <i>Strix occidentalis occidentalis</i> Population: Sierra Nevada No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7266	Proposed Threatened

AMPHIBIANS

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is final critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

CRITICAL HABITATS

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> https://ecos.fws.gov/ecp/species/2891#crithab	Final

IPAC USER CONTACT INFORMATION

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United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Nevada County Area, California



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<http://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the

Custom Soil Resource Report

individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

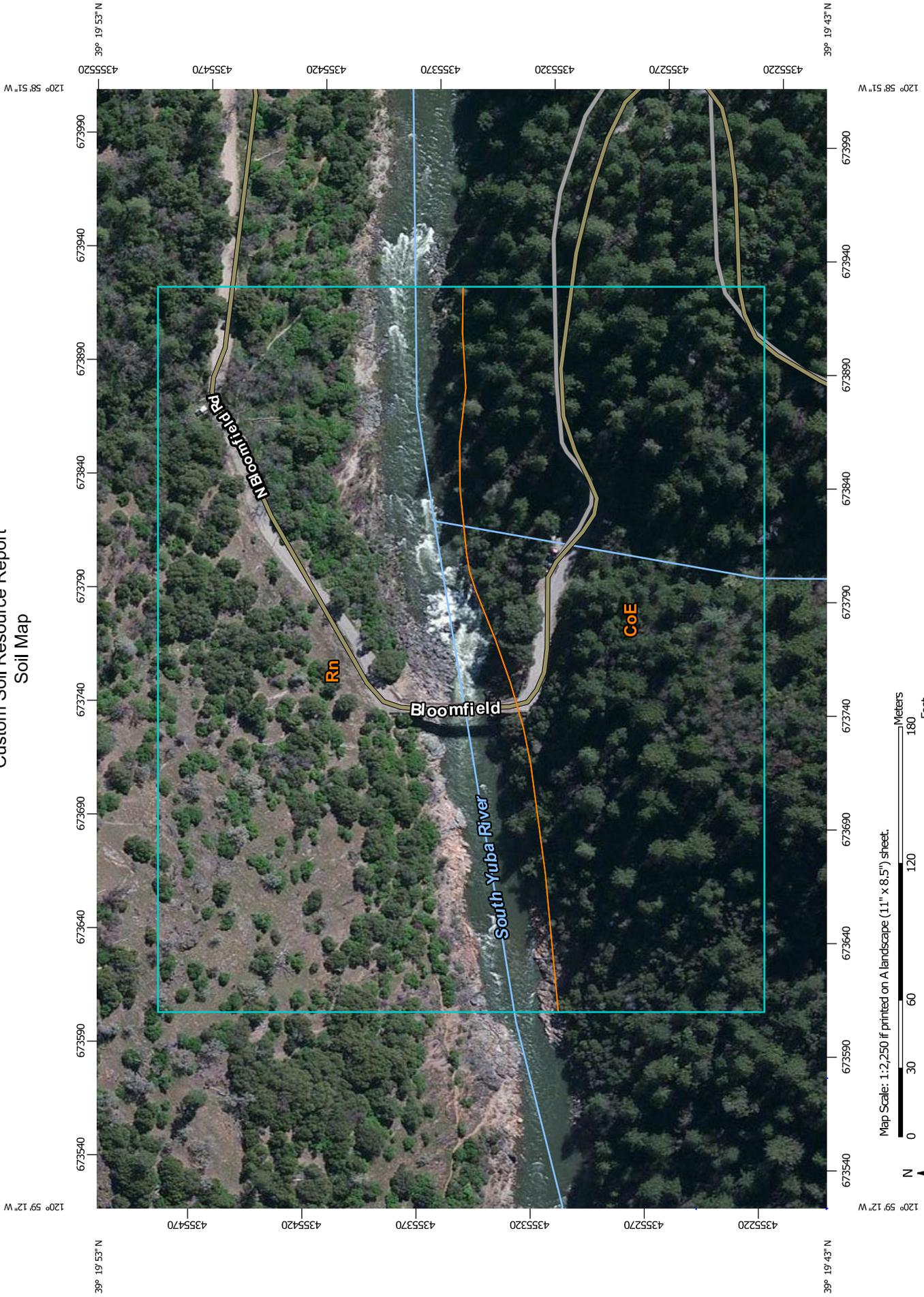
Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



Map Scale: 1:2,250 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

 Area of Interest (AOI)	 Spoil Area
 Soil Map Unit Polygons	 Stony Spot
 Soil Map Unit Lines	 Very Stony Spot
 Soil Map Unit Points	 Wet Spot
 Special Point Features	 Other
 Blowout	 Special Line Features
 Borrow Pit	Water Features
 Clay Spot	 Streams and Canals
 Closed Depression	Transportation
 Gravel Pit	 Rails
 Gravelly Spot	 Interstate Highways
 Landfill	 US Routes
 Lava Flow	 Major Roads
 Marsh or swamp	 Local Roads
 Mine or Quarry	Background
 Miscellaneous Water	 Aerial Photography
 Perennial Water	
 Rock Outcrop	
 Saline Spot	
 Sandy Spot	
 Severely Eroded Spot	
 Sinkhole	
 Slide or Slip	
 Sodic Spot	

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Nevada County Area, California
 Survey Area Data: Version 8, Sep 16, 2014

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 5, 2011—Apr 29, 2012

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map-unit boundaries may be evident.

Map Unit Legend

Nevada County Area, California (CA619)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CoE	Cohasset cobbly loam, 30 to 50 percent slopes	9.1	43.3%
Rn	Rock land	11.9	56.7%
Totals for Area of Interest		21.0	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

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An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Nevada County Area, California

CoE—Cohasset cobbly loam, 30 to 50 percent slopes

Map Unit Setting

National map unit symbol: hfwb
Elevation: 2,000 to 4,000 feet
Mean annual precipitation: 48 to 58 inches
Mean annual air temperature: 54 to 58 degrees F
Frost-free period: 140 to 230 days
Farmland classification: Not prime farmland

Map Unit Composition

Cohasset and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cohasset

Setting

Landform: Hills, mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank, side slope
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Cobbly andesitic conglomerate

Typical profile

A - 0 to 15 inches: cobbly loam
Bt - 15 to 96 inches: cobbly clay loam
Cr - 96 to 106 inches: bedrock

Properties and qualities

Slope: 30 to 50 percent
Depth to restrictive feature: 42 to 99 inches to paralithic bedrock
Natural drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 8.2 inches)

Interpretive groups

Land capability classification (irrigated): 6e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C

Minor Components

Cohasset, loam

Percent of map unit: 5 percent
Landform: Mountain slopes, hills

Iron mountain, cobbly loam

Percent of map unit: 5 percent
Landform: Hills, mountains

Mccarthy, cobbly loam

Percent of map unit: 5 percent
Landform: Mountains, hills

Rn—Rock land

Map Unit Setting

National map unit symbol: hfxd
Elevation: 400 to 4,500 feet
Mean annual precipitation: 28 to 55 inches
Mean annual air temperature: 53 to 62 degrees F
Frost-free period: 135 to 260 days
Farmland classification: Not prime farmland

Map Unit Composition

Rock land: 70 percent
Minor components: 30 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Rock Land

Setting

Landform: Hills, mountains
Parent material: Basic, metabasic, ultrabasic and metamorphosed igneous and sedimentary rock

Typical profile

R - 0 to 4 inches: bedrock

Properties and qualities

Slope: 2 to 75 percent
Depth to restrictive feature: 0 inches to lithic bedrock
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydrologic Soil Group: D

Minor Components

Lithic haploxerepts, very shallow

Percent of map unit: 12 percent
Landform: Mountains, hills

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Sobrante

Percent of map unit: 3 percent

Landform: Hills, mountains

Mariposa

Percent of map unit: 3 percent

Landform: Mountains, hills

Iron mountain

Percent of map unit: 3 percent

Landform: Hills, mountains

Auburn

Percent of map unit: 3 percent

Landform: Mountains, hills

Maymen

Percent of map unit: 3 percent

Landform: Hills, mountains

Dubakella

Percent of map unit: 3 percent

Landform: Mountains, hills

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084>

Custom Soil Resource Report

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

Appendix D: Native American Outreach Log

Edwards Crossing Bridge Replacement Project, Nevada County
Native American Consultation Log

Affiliation	Name	Contact Date	Contact Type	Response
Native American Heritage Commission (NAHC)	Pracilla Torres-Fuentes	5/5/2022	Letter	NAHC response SLF NEGATIVE 6/28/2022
	Grayson Coney, Cultural Director	9/26/2022	Letter	Delivered 10/05/2022
		1/11/2023	e-mail	Follow-up sent
Tsi Akim Maidu	Don Ryberg, Chairperson	3/7/2023	e-mail	Follow-up sent
		9/26/2022	Letter	Delivered 10/05/2022
	1/11/2023	e-mail	Follow-up sent	
United Auburn Indian Community of the Auburn Rancheria	Gene Whitehouse, Chairperson	3/7/2023	e-mail	Follow-up sent
		9/26/2022	Website	Electronic submittal of consultation letter via the UAIC website consultation page
		10/6/2022	e-mail	Anna Starkey replied requesting consultation under Section 106 and stated that AB 52 consultation began in 2020. She also requested the cultural report and photos of the APE. She inquired if the Enterprise Rancheria or other Tribes were consulting. She stated that recommendations would be provided once documentation could be reviewed. A response was sent to Ms. Starkey on 10/7/2022 regarding her questions and provided a link to photos of the project.
Washoe Tribe of Nevada and California	Darrel Cruz, Cultural Resources Department	9/26/2022	Letter	Delivered 9/30/2022
		1/11/2023	e-mail	Follow-up sent
	Serrell Smokey, Chairperson	1/18/2023	e-mail	An email was received from Bernadette Nieto, Tribal Administrator, stated that the Tribe did not have any recommendations for the project but requested that a monitor be present during ground disturbance. Additionally, she stated that it is the Tribe's preference that if artifacts are found they remain protected in place.
		9/22/2022	Letter	Delivered 9/30/2022
Wilton Rancheria	Dahlton Brown, Director of Administration	1/11/2023	e-mail	Follow-up sent
		3/7/2023	e-mail	Follow-up sent
		9/22/2022	Letter	Delivered 9/30/2022
	Steven Hutchason, THPO	1/11/2023	e-mail	Follow-up sent
		3/7/2023	e-mail	Follow-up sent
		9/22/2022	Letter	Delivered 9/30/2022
Colfax-Todds Valley Consolidated Tribe	Pamela Cubbler, Treasurer	1/11/2023	e-mail	Follow-up sent
		3/7/2023	e-mail	Follow-up sent
		9/22/2022	Letter	Delivered 10/5/2022
		1/11/2023	e-mail	Follow-up. A response was received on 1/12/2023 from Ms. Cubbler stating that the Tribe has concerns and requests a meeting. Emails were sent on 1/18/23, 1/30/22, and 2/2/23 trying to coordinate a meeting.
Colfax-Todds Valley Consolidated Tribe	Pamela Cubbler, Treasurer	2/15/2023	phone	Conversation with Ms. Cubbler in which she requested additional information. Site photographs and maps were sent on 2/15/23. Follow-up was emailed on 2/22/23.
		3/7/2023	phone	Conversation with Ms. Cubbler in which she reviewed the submitted photos and stated that the Tribe would not request formal consultation but requested notification in case of late discovery.

Edwards Crossing Bridge Replacement Project, Nevada County
Native American Consultation Log

Affiliation	Name	Contact Date	Contact Type	Response
	Clyde Prout, Chairperson	9/22/2022	Letter	Delivered 10/5/2022
		1/11/2023	e-mail	Follow-up. See above.
Nevada City Rancheria Nisenan Tribe	Richard Johnson, Chairman	9/22/2022	Letter	Consultation letter sent
		1/11/2023	e-mail	Follow-up sent
		3/7/2023	e-mail	Follow-up sent

Appendix E: CSO Concurrence Letters

TO BE INCLUDED WITH FINAL EIR

Appendix F: FEMA Firmette Map

National Flood Hazard Layer FIRMette

120°59'22"W 39°19'59"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS



Without Base Flood Elevation (BFE)
Zone A, V, A99
With BFE or Depth *Zone AE, AO, AH, VE, AR*
Regulatory Floodway

0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
Future Conditions 1% Annual Chance Flood Hazard *Zone X*
Area with Reduced Flood Risk due to Levee, See Notes. *Zone X*
Area with Flood Risk due to Levee *Zone D*

OTHER AREAS OF FLOOD HAZARD



Area of Minimal Flood Hazard *Zone X*
Effective LOMRs *Zone X*
Area of Undetermined Flood Hazard *Zone D*

OTHER AREAS

Channel, Culvert, or Storm Sewer
Levee, Dike, or Floodwall

Cross Sections with 1% Annual Chance Water Surface Elevation

Coastal Transect
Base Flood Elevation Line (BFE)
Limit of Study
Jurisdiction Boundary

OTHER FEATURES

Coastal Transect Baseline
Profile Baseline
Hydrographic Feature

MAP PANELS

Digital Data Available
No Digital Data Available
Unmapped

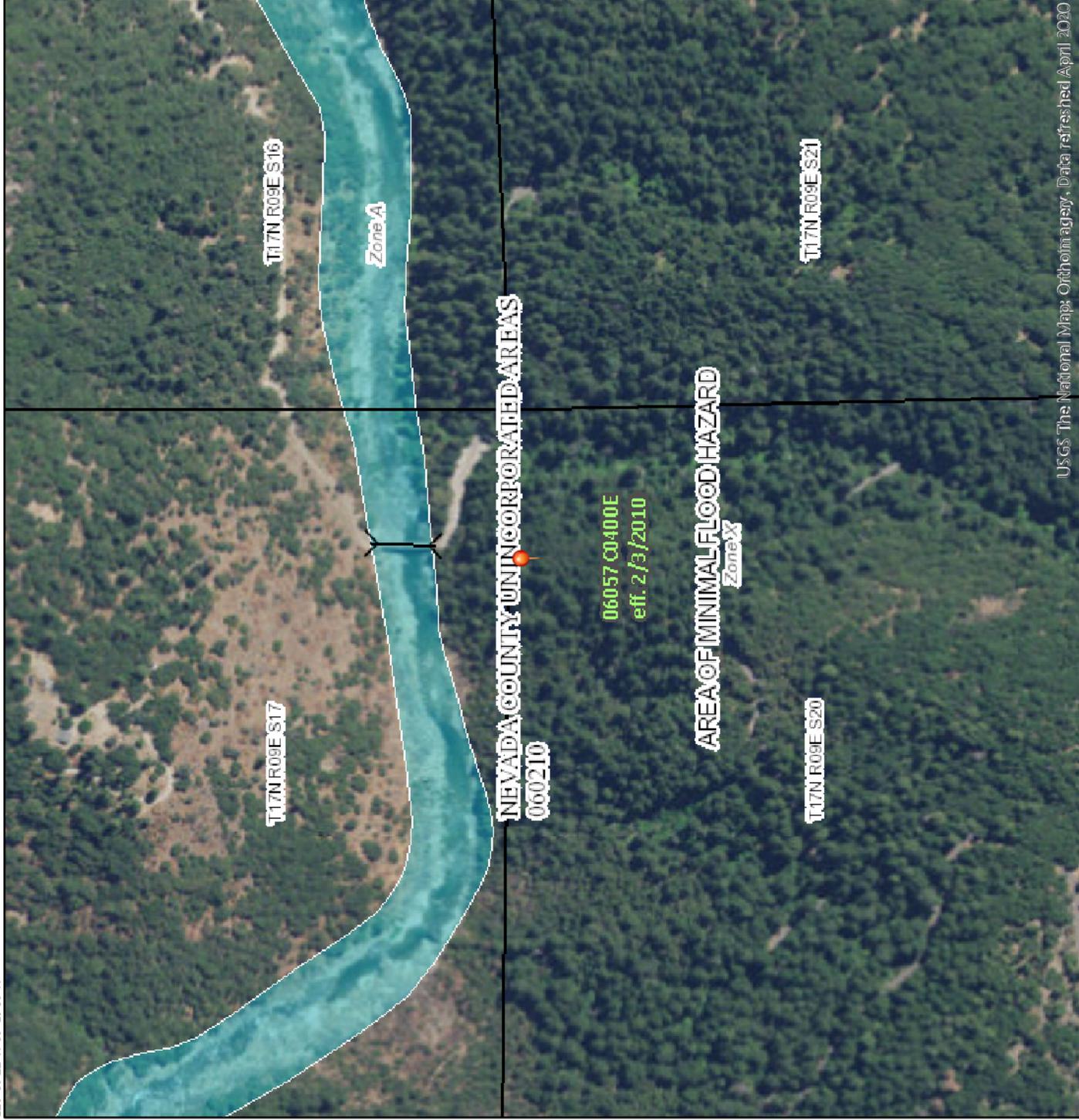


The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **7/14/2020 at 12:37 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



USGS The National Map, OrthoImagery, Data refreshed April 2020

120°58'45"W 39°19'31"N



Appendix G: Mitigation Monitoring and Reporting Program

Task and Brief Description	Timing	Responsible Party	Completed	Initials	Notes (optional)
Aesthetics					
VIS-1: Construction will be limited to daylight hours.	During Construction	Contractor	<input type="checkbox"/>	_____	
VIS-2: Minimize the removal of trees and vegetation to accommodate bridge abutments and support structure.	During Construction	Contractor	<input type="checkbox"/>	_____	
VIS-3: Staging areas will be restored or designed to accommodate parking once the Project is complete.	Post Construction	Contractor	<input type="checkbox"/>	_____	
VIS-4: Apply aesthetic treatments or design features.	During Construction	Contractor	<input type="checkbox"/>	_____	
Air Quality					
AQ-1: Implement NSAQMD Level A Mitigations <ul style="list-style-type: none"> Grid power shall be used (as opposed to diesel generators) for job site power needs where feasible during construction. 	During Construction	Contractor	<input type="checkbox"/>	_____	
AQ-2: Implement NSAQMD Level B Mitigations <ul style="list-style-type: none"> Temporary traffic control shall be provided during all phases of the construction to improve traffic flow as deemed appropriate by local transportation projects and/or Caltrans. Construction activities shall be scheduled to direct traffic flow to off-peak hours as much as practicable. 	During Construction	Contractor	<input type="checkbox"/>	_____	
Biological Resources					
BIO-1: Best Management Practices: <ul style="list-style-type: none"> Existing vegetation would be protected where feasible to reduce erosion and sedimentation. Vegetation would be preserved by installing temporary fencing, or other protection devices, around sensitive biological resources. 	During Construction	Contractor	<input type="checkbox"/>	_____	

Task and Brief Description	Timing	Responsible Party	Completed	Initials	Notes (optional)
<ul style="list-style-type: none"> Exposed soils would be covered by loose bulk materials or other materials to reduce erosion and runoff during rainfall events. Exposed soils would be stabilized, through watering or other measures, to prevent the movement of dust at the Project site caused by wind and construction activities such as traffic and grading activities. All concrete curing activities would be conducted to minimize spray drift and prevent curing compounds from entering the waterway directly or indirectly. All construction materials, vehicles, stockpiles, and staging areas would be situated outside of the stream channel as feasible. All stockpiles would be covered, as feasible. All erosion control measures and storm water control measures would be properly maintained until final grading has been completed and permanent erosion control measures are implemented. All disturbed areas would be restored to pre-construction contours and revegetated, where applicable, either through hydroseeding or other means, with native or approved non-invasive exotic species. All construction materials would be hauled off-site after completion of construction. 					
<p>BIO-2: Prior to the start of construction activities, the Project limits in proximity to jurisdictional waters and foothill riparian habitat must be marked with high visibility Environmentally Sensitive Area (ESA) fencing or staking to ensure construction will not further encroach into waters or sensitive habitats. The Project biologist will periodically inspect the ESA to ensure sensitive locations remain undisturbed.</p>	During Construction	Contractor	<input type="checkbox"/>	_____	
<p>BIO-3: Refueling or maintenance of equipment without secondary containment shall not be permitted to occur on the temporary trestle or</p>	During Construction	Contractor	<input type="checkbox"/>	_____	

Task and Brief Description	Timing	Responsible Party	Completed	Initials	Notes (optional)
<p>within 100 feet of the South Fork Yuba River. All refueling and maintenance that must occur within 100 feet of the river must occur over plastic sheeting or other secondary containment measures to capture accidental spills before they can contaminate the soil. Secondary containment must have a raised edge (e.g. sheeting wrapped around wattles).</p>					
<p>BIO-4: Equipment will be checked daily for leaks and will be well maintained to prevent lubricants and any other deleterious materials from entering the South Fork Yuba River and the associated riparian area.</p>	During Construction	Contractor	<input type="checkbox"/>	_____	
<p>BIO-5: Vehicle maintenance, staging and storing equipment, materials, fuels, lubricants, solvents, and other possible contaminants shall remain outside of sensitive habitat marked with high-visibility fencing. Any necessary equipment washing shall occur where the water cannot flow into sensitive habitat communities.</p>	During Construction	Contractor	<input type="checkbox"/>	_____	
<p>BIO-6: A chemical spill kit shall be kept onsite and available for use in the event of a spill.</p>	During Construction	Contractor	<input type="checkbox"/>	_____	
<p>BIO-7: Secondary containment consisting of plastic sheeting or other impermeable sheeting shall be installed underneath all stationary equipment to prevent petroleum products or other chemicals from contaminating the soil or from spilling directly into the South Fork Yuba River. Secondary containment must have a raised edge (e.g. sheeting wrapped around wattles).</p>	During Construction	Contractor	<input type="checkbox"/>	_____	
<p>BIO-8: Vegetation clearing will only occur within the delineated Project limits. An ESA fence will be provided on the final plans to delineate which trees can be saved and which will be removed. Where possible, trees will be trimmed rather than removed fully with the guidance of a certified arborist. Vegetation will only be cleared where necessary and, when feasible, will be cut above soil level.</p>	During Construction	Contractor	<input type="checkbox"/>	_____	
<p>BIO-9: Impacts to natural communities within the BSA shall be re-vegetated with native seed mix. The impact area shall be fully re-planted</p>	Post Construction	Contractor	<input type="checkbox"/>	_____	

Task and Brief Description	Timing	Responsible Party	Completed	Initials	Notes (optional)
with the native seed mix and allowed to return to pre-construction conditions.					
BIO-10: In the spring blooming season immediately prior to construction, a rare plant survey will be conducted by a qualified biologist in order to detect the occurrence of special status plant species within the BSA. Specifically, the rare plant survey will focus on areas where the Butte County fritillary, Cantelow's lewisia, and Sierra blue grass are most likely to occur within the Project impact area. If an individual or population of a rare species is discovered within the BSA, a no-work buffer will be established around the individual or population and delineated with ESA fencing. Disturbance to and collection of any rare plant species is not permitted.	Prior to Construction	County	<input type="checkbox"/>	_____	
BIO-11: If tree removal is required for Project activities, replacement of removed trees within the BSA would occur at a 1:1-inch diameter at standard height (DSH) ratio. If replacement of removed trees on-site is determined to be infeasible, mitigation shall be completed by payment to the Bear Yuba Land Trust or other Nevada County-approved entity, based on the assessment of tree damage/loss at a 1:1 ratio (minimum one acre). The fee shall include any required transaction and other potential fees required by said entity.	Prior to Construction	County	<input type="checkbox"/>	_____	
BIO-12: Prior to any ground disturbing activities within the South Fork Yuba River channel or montane riparian habitat, FYLF exclusion fencing will be established on the edge of the Project boundary within montane riparian habitat and along the water's edge of the South Fork Yuba River within the Project limits. The exclusion fencing within montane riparian habitat will consist of silt fencing, or a similar plastic material, at least 3 feet high. The top few inches of the fence must be curved away (outside) from the construction area to curtail climbing frogs and shall be dug at least 6 inches into the ground. Exclusion fencing at the edge of the South Fork Yuba River should consist of a ¼ inch mesh or smaller opening material and must be sufficiently anchored to the streambed with rocks and gravel to prevent immigration of frogs and tadpoles underneath into the construction area.	During Construction	Contractor	<input type="checkbox"/>	_____	

Task and Brief Description	Timing	Responsible Party	Completed	Initials	Notes (optional)
<p>The exclusion fencing shall be installed as soon as possible after cessation of winter flows and before the frogs begin to breed.</p>					
<p>BIO-13: Prior to vegetation removal within montane riparian habitat or the South Fork Yuba River channel, an agency-approved biologist must first inspect all areas where ground disturbing activity is anticipated. The agency-approved biologist must observe all vegetation clearing and grubbing and will have stop work authority. If a special status wildlife species is spotted within an active work area, the agency-approved biologist shall immediately stop work activities until the animal has left the Project area. The biologist will coordinate with CDFW to determine if further measures are necessary at that point.</p>	<p>Prior to construction/ During Construction</p>	<p>County</p>	<p><input type="checkbox"/></p>	<p>_____</p>	
<p>BIO-14: The agency-approved biologist shall perform daily clearance sweeps of all in stream areas and surrounding riparian areas of construction activity prior to the commencement of work.</p>	<p>During Construction</p>	<p>County</p>	<p><input type="checkbox"/></p>	<p>_____</p>	
<p>BIO-15: The agency-approved biologist will keep daily monitoring logs of construction activities and FYLF activities.</p>	<p>During Construction</p>	<p>County</p>	<p><input type="checkbox"/></p>	<p>_____</p>	
<p>BIO-16: Upon completion of construction activities, the temporary trestle and any barriers to flow will be removed, with oversight from the agency-approved biologist, in a manner that would allow flow to resume with the least disturbance to the substrate.</p>	<p>Post Construction</p>	<p>Contractor/County</p>	<p><input type="checkbox"/></p>	<p>_____</p>	
<p>BIO-17: The construction contractor shall avoid removing mature trees during the nesting bird season (February 15 –August 31). If trees must be removed within the nesting season, a pre-construction nesting raptor survey must be conducted no more than 3 days prior to vegetation removal. The trees must be removed within 3 days from the nesting raptor survey. A minimum 300-foot no-disturbance buffer will be established around any nesting northern goshawks. The contractor must immediately stop work in the nesting area until the appropriate buffer is established and is prohibited from conducting work that could disturb the birds (as determined by the</p>	<p>Prior to Construction</p>	<p>County</p>	<p><input type="checkbox"/></p>	<p>_____</p>	

Task and Brief Description	Timing	Responsible Party	Completed	Initials	Notes (optional)
Project biologist and in coordination with the County) in the buffer area until a qualified biologist determines the young have fledged.					
BIO-18: Prior to construction, a reconnaissance level survey shall be conducted by the Project biologist to detect the western bumble bee if it is present within the BSA. The survey will be conducted in the springtime, during peak blooming season, when the western bumble bee is more likely to be encountered. High definition cameras will be utilized during survey efforts to capture unique physical characteristics of each bee species encountered. Photos will be submitted to online databases that employ bee experts, such as <i>Bumble Bee Watch</i> or <i>Bee Spotters</i> , as suggested in the <i>Survey Protocols for the Rusty Patched Bumble Bee</i> . If the western bumble bee is presumed present within the BSA, additional coordination with CDFW will occur to determine appropriate measures to avoid impacts to the special-status bee species.	Prior to Construction	County	<input type="checkbox"/>	_____	
BIO-19: Prior to the commencement of construction activities, a qualified biologist must conduct a focused western pond turtle survey within the Project impact areas in the South Fork Yuba River and montane riparian habitat. The biologist will relocate any western pond turtles found to an area downstream from the BSA. If western pond turtles are found within the BSA, the biologist will coordinate with CDFW to determine if additional exclusion measures are required at that time.	Prior to Construction	County	<input type="checkbox"/>	_____	
BIO-20: If construction crews observe a turtle within the Project impact area, work shall be stopped within 50 feet of the turtle until the turtle has left the Project area or the biologist has been notified, has identified the turtle as a western pond turtle, and has relocated the individual. Only the qualified biologist is permitted to touch a western pond turtle.	During Construction	Contractor	<input type="checkbox"/>	_____	
BIO-21: Prior to arrival at the Project site and prior to leaving the Project site, construction equipment that may contain invasive plants and/or seeds shall be cleaned to reduce the spreading of noxious weeds.	During Construction	Contractor	<input type="checkbox"/>	_____	

Task and Brief Description	Timing	Responsible Party	Completed	Initials	Notes (optional)
<p>BIO-22: If hydroseed and plant mixes are used during or post-construction, plant species must consist of a biologist approved plant palette seed mix of native species sourced locally to the Project area.</p>					
<p>BIO-23: The construction contractor shall avoid removing any vegetation during the nesting bird season (February 15 –August 31). If vegetation must be removed within the nesting season, a pre-construction nesting bird survey must be conducted no more than 3 days prior to vegetation removal. The vegetation must be removed within 3 days from the nesting bird survey.</p> <p>A minimum 100-foot no-disturbance buffer will be established around any active nest of migratory birds and a minimum 300-foot no-disturbance buffer will be established around any nesting raptor species. The contractor must immediately stop work in the nesting area until the appropriate buffer is established and is prohibited from conducting work that could disturb the birds (as determined by the Project biologist and in coordination with the County) in the buffer area until a qualified biologist determines the young have fledged. A reduced buffer can be established if determined appropriate by the Project biologist and approved by the County.</p>	<p>Prior to Construction</p>	<p>County</p>	<p><input type="checkbox"/></p>	<p>_____</p>	
<p>BIO-24: All construction crew members shall allow wildlife enough time to escape initial clearing and grubbing activities. Initial clearing and grubbing must be accomplished through the use of hand tools.</p>	<p>During Construction</p>	<p>Contractor</p>	<p><input type="checkbox"/></p>	<p>_____</p>	
<p>BIO-25: The contractor shall dispose of all food-related trash in closed containers and must remove it from the Project area each day during construction. Construction personnel must not feed or attract wildlife to the Project area.</p>	<p>During Construction</p>	<p>Contractor</p>	<p><input type="checkbox"/></p>	<p>_____</p>	
<p>BIO-26: The contractor must not apply rodenticide or herbicide within the BSA during construction.</p>	<p>During Construction</p>	<p>Contractor</p>	<p><input type="checkbox"/></p>	<p>_____</p>	
Cultural Resources					

Task and Brief Description	Timing	Responsible Party	Completed	Initials	Notes (optional)
<p>CR-1: Prior to and throughout construction, the County and Caltrans shall implement the Memorandum of Agreement Between the California Department of Transportation and the California State Historic Preservation Officer Regarding the Edwards Crossing Bridge Replacement Project, Nevada County, California to resolve potential adverse effects to the Edwards Crossing Bridge.</p>			<input type="checkbox"/>	<p>_____</p>	
<p>CR-2: Prior to and throughout construction, the County and Caltrans shall implement the Edwards Crossing Bridge Replacement Project Secretary of the Interior's Standards Action Plan to avoid adverse impacts to the Edwards Crossing Bridge.</p>			<input type="checkbox"/>	<p>_____</p>	
<p>CR-3: An archaeologist meeting the Secretary of the Interior's Professional Qualification Standards in Archaeology shall conduct archaeological monitoring during geotechnical and initial construction grading activities.</p>			<input type="checkbox"/>	<p>_____</p>	
<p>CR-4: In the event that buried archaeological materials are encountered during construction, the course of action followed will be that stated in Stipulation XV. Post Review Discoveries, Section B.1-3 of the PA. Should the archaeological discovery include Native American resources, the consulting Tribes shall be contacted, to assist in the significance assessment and treatment recommendations.</p> <p>It is BLM's policy to protect and preserve archaeological resources and historic properties. If inadvertent discoveries are unearthed during this undertaken on lands managed by the BLM, operations are to cease immediately and the BLM archaeologist is to be contacted. Following an evaluation, consultation (if needed), and protection measures (if needed) project work may proceed.</p>			<input type="checkbox"/>	<p>_____</p>	
<p>CR-5: If human remains are encountered, State Health and Safety Code Section 7050.5 dictates that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC 5097.98. The County Coroner must be notified of the find</p>			<input type="checkbox"/>	<p>_____</p>	

Task and Brief Description	Timing	Responsible Party	Completed	Initials	Notes (optional)
<p>immediately. If the remains are determined to be prehistoric, the Coroner will notify the NAHC, which will determine and notify a MLD. With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.</p> <p>Should inadvertent discovery of human remains and objects subject, or potentially subject, to Native American Graves Protection and Repatriation Act (NAGPRA) as defined in 43 CFR 10.2 (d), be located on land managed by the BLM, the discovery will be handled by the BLM under the Archaeological Resources Protection Act regulation at 43 Code of Federal Regulations (CFR) 7 and NAGPRA regulations at 43 CFR 10 as well as related BLM policy.</p>					
Geology/Soils					
<p>WQ-4: The proposed project will require a National Pollution Discharge Elimination System (NPDES) General Construction Permit for Discharges of stormwater associated with construction activities. A Stormwater Pollution Prevention Plan (SWPPP) or Water Pollution Control Plan (WPCP) will also be developed and implemented as part of the Construction General Permit.</p>	<p>Prior to construction/ During Construction</p>	<p>Contractor</p>	<input type="checkbox"/>	<p>_____</p>	
Noise					
<p>NOI-1: To minimize the construction-generated noise, the abatement measures below shall be followed by the construction contractor:</p> <ul style="list-style-type: none"> • Construction shall occur only between the hours of 7:00 a.m. to 7:00 p.m. Monday through Friday, or 8:00 a.m. to 6:00 p.m. on Saturdays, and not at any time on Sundays, with the exception that equipment may be operated within the project limits outside of these hours to: <ul style="list-style-type: none"> ○ Service traffic control facilities ○ Service construction equipment 	<p>During Construction</p>	<p>Contractor</p>	<input type="checkbox"/>	<p>_____</p>	

Task and Brief Description	Timing	Responsible Party	Completed	Initials	Notes (optional)
<ul style="list-style-type: none"> Equip an internal combustion engine with the manufacturer recommended muffler. Do not operate an internal combustion engine on the job site without the appropriate muffler. 					
Tribal Cultural Resources					
<p>CR-3: An archaeologist meeting the Secretary of the Interior's Professional Qualification Standards in Archaeology shall conduct archaeological monitoring during geotechnical and initial construction grading activities.</p>			<input type="checkbox"/>	_____	
<p>CR-4: In the event that buried archaeological materials are encountered during construction, the course of action followed will be that stated in Stipulation XV. Post Review Discoveries, Section B.1-3 of the PA. Should the archaeological discovery include Native American resources, the consulting Tribes shall be contacted, to assist in the significance assessment and treatment recommendations.</p> <p>It is BLM's policy to protect and preserve archaeological resources and historic properties. If inadvertent discoveries are unearthed during this undertaken on lands managed by the BLM, operations are to cease immediately and the BLM archaeologist is to be contacted. Following an evaluation, consultation (if needed), and protection measures (if needed), project work may proceed.</p>					
<p>CR-5: If human remains are encountered, State Health and Safety Code Section 7050.5 dictates that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner will notify the NAHC, which will determine and notify a MLD. With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD may</p>					

Task and Brief Description	Timing	Responsible Party	Completed	Initials	Notes (optional)
<p>recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.</p> <p>Should inadvertent discovery of human remains and objects subject, or potentially subject, to Native American Graves Protection and Repatriation Act (NAGPRA) as defined in 43 CFR 10.2 (d), be located on land managed by the BLM, the discovery will be handled by the BLM under the Archaeological Resources Protection Act regulation at 43 Code of Federal Regulations (CFR) 7 and NAGPRA regulations at 43 CFR 10 as well as related BLM policy.</p>					
Wildfire					
<p>WF-1: The contractor shall prepare a Traffic Management Plan that includes a Project schedule with specific information on when vehicle restrictions during construction including if/when limitation to fire equipment access would occur.</p>	Prior to Construction	Contractor	<input type="checkbox"/>	—	
<p>WF-2: The contractor shall prepare a Construction Fire Protection Plan approved by the Fire Chief of the Nevada County Consolidated Fire District. The Construction Fire Plan shall implement fire safety measures during construction activities in compliance with the National Fire Protection Association Standard 15B and California Public Resources Code Section 4442.</p>	Prior to Construction	Contractor	<input type="checkbox"/>	—	
<p>WF-3: Hot work (welding, cutting, or any activity that involves open flames or produces sparks) shall cease during Red Flag Warning periods declared by the National Weather Service.</p>	During Construction	Contractor	<input type="checkbox"/>	—	
<p>WF-4: The contractor shall prepare an Emergency Plan that includes emergency operational procedures for wildland fires, EMS emergencies, and flood emergencies.</p>	Prior to Construction	Contractor	<input type="checkbox"/>	—	