Waldo Road Over Dry Creek Bridge Replacement Project

YUBA COUNTY, CALIFORNIA
CALTRANS DISTRICT 3
FEDERAL PROJECT #BRLO-5916(092)

Draft Environmental Impact Report

State Clearinghouse No. 2022080453

March 2025

SUMMARY

PROJECT DESCRIPTION

Yuba County (County) is proposing to implement the Waldo Road over Dry Creek Bridge Replacement Project (Project), which would build a new bridge to carry Waldo Road over Dry Creek, approximately 100 feet upstream from the existing bridge (Bridge No. 16C0006). The Project is located in rural Yuba County, roughly 14 miles northeast of Wheatland. Waldo Road is a generally north/south road and the bridge crosses Dry Creek on a generally north/south alignment. Waldo Road and connecting roads Spenceville Road and Camp Far West Road, are all lightly traveled routes passing through rolling Sierra foothills terrain. The bridge is located within the Spenceville Wildlife Area, a 11,900-acre wildlife preserve and public outdoor recreation area administered by the California Department of Fish and Wildlife (CDFW).

The existing bridge is currently classified as structurally deficient, with a sufficiency rating of 9.3. A new bridge is necessary to meet current design and safety standards which can safely convey vehicles, including emergency response vehicles, and pedestrians across Dry Creek. The replacement bridge will meet current applicable County, America Association of State Highway and Transportation Officials, and the California Department of Transportation (Caltrans) design standards.

The proposed new bridge is a continuous three-span, post-tensioned concrete box girder bridge. The spans are 72 feet, 96 feet, and 72 feet respectively. It will have two, twelve-foot travel lanes and two, four-foot shoulders and provide a clear width between barrier rails of 34 feet. A vehicular railing will be attached to the edge of deck of the new structure. The piers supporting the intermediate spans will be two, four-foot diameter columns pinned at their bases with end spans supported by seat type abutments with wingwalls protected by rock slope protection. Abutments 1 and 4 (the end supports) will be founded on spread footing foundations, both embedded and doweled into intact rock at each support.

The new bridge will require a realignment of the roadway, which will correct the existing substandard curves on roadway approaches to the bridge. The vertical profile of the new bridge will be raised slightly to provide sufficient water conveyance beneath the bridge during flood events. This will also require a slight rise in the approach roadway elevation, which will gradually decrease until the realigned roadway conforms to the existing roadway elevations.

Once the new bridge has been constructed, the existing bridge would be demolished. Preservation and maintenance of the bridge is not possible due to the presence of hazardous lead paint throughout the structure, the non-standard design components, substandard curves, unprotected pedestrian access, and on-going timber and steel maintenance issues.

Acquisition of permanent right-of-way is anticipated for this Project. Since the proposed alignment is shifting the new bridge to the east along with new approach alignments, Yuba County can relinquish right-of-way along the existing alignment to CDFW for use in the Spenceville Wildlife Area.

AREAS OF KNOWN CONTROVERSY

The County issued a Notice of Preparation (NOP) for this Draft Environmental Impact Report (EIR) on August 24, 2022 in compliance with the California Environmental Quality Act (CEQA) and the State CEQA Guidelines (**Appendix A**). The County provided the NOP to local, State, and Federal agencies, organizations, and individuals within a half mile radius of the Project area. The

NOP was circulated for comment for 30 days; however, since the 30 days ended on a Saturday (September 24, 2022), the comment period officially ended on September 26, 2022.

During the NOP comment period, the various government agencies identified areas of controversy that pertain to the proposed Project. General topics raised included: biological resources, water quality, tribal cultural resources, and general permitting concerns. Specific topics raised included tribal cultural resources within the Project area.

ISSUES TO BE RESOLVED

The discussion of environmental impacts, mitigation measures, and Project alternatives as evaluated in detail in this Draft EIR constitutes the identification of issues to be resolved as required for compliance with CEQA Guidelines Section 15123(b)(3). In addition, a summary of Environmental Impacts and Mitigation Measures is provided below in **Table 1**.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Table 1 below provides a snapshot of affected environmental resources along with mitigation measures; a list of all measures pertaining to the respective resource is within Chapter 3 of this document. A comprehensive list of mitigation measures is included in **Table 11**. Resources that would experience no impact are not within the table and include Agriculture and Forestry Resources, Land Use/Planning, Population/Housing, Mineral Resources, and Recreation. An analysis of each resource, except those mentioned above, is provided in Chapter 3.

Table 1: Summary of Affected Resources

Resource	Project Impacts		Summary of Avoidance, Minimization, and/or Mitigation Measures
	Build Alternative	No-Build Alternative	
Aesthetics	Less than Significant Impact with Mitigation	No Impact	BIO-1 and BIO-7
Agriculture and Forestry Resources	No Impact	No Impact	No Measures
Air Quality	Less than Significant Impact with Mitigation	No Impact	AQ-1 through AQ-4
Biological Resources	Less than Significant Impact with Mitigation	No Impact	BIO-1 through BIO-42
Cultural Resources	Significant Impact	Potentially Significant Impact	CUL-1(a-c) through CUL-2(a-i)
Energy	Less than Significant Impact	No Impact	AQ-1

Resource	Project Impacts		Summary of Avoidance, Minimization, and/or Mitigation Measures
	Build Alternative	No-Build Alternative	
Geology and Soils	Less than Significant Impact	No Impact	AQ-1
Greenhouse Gas Emissions	Less than Significant Impact	No Impact	No Measures
Hazards and Hazardous Materials	Less than Significant Impact with Mitigation	Potentially Significant Impact	HAZ-1 through HAZ-4
Hydrology and Water Quality	Less than Significant Impact with Mitigation	No Impact	WQ-1
Land Use and Planning	No Impact	No Impact	No Measures
Mineral Resources	No Impact	No Impact	No Measures
Noise	Less than Significant Impact	No Impact	NOI-1
Public Services	Less than Significant Impact	Potentially Significant Impact	No Measures
Recreation	No Impact	No Impact	No Measures
Transportation/Traffic	Less than Significant Impact	Potentially Significant Impact	No Measures
Tribal Cultural Resources	Less than Significant Impact with Mitigation	No Impact	TCR-1 through TCR-4
Utilities and Service Systems	Less Than Significant Impact	No Impact	No Measures
Wildfire	Less than Significant Impact	Potentially Significant Impact	No Measures

Resource	Project Impacts		Summary of Avoidance, Minimization, and/or Mitigation Measures
	Build Alternative	No-Build Alternative	
Mandatory Findings of Significance	Significant Impact	Potentially Significant 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."

Although several alternatives were evaluated early in the preliminary planning stage, based on engineering infeasibility, failure to meet Project objectives, substantial environmental impacts, and cost, it has been determined that one alternative is superior to the others. This environmental document evaluates the Build Alternative and compares the effects it would have in relation to a No-Build Alternative. An analysis on other alternatives is provided in Chapter 4.

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Table 2: List of Abbreviations

AB 52	Assembly Bill 52
ACHP	Advisory Council on Historic Preservation
ADA	Americans with Disability Act
AMA	Archaeological Monitoring Area
APE	Area of Potential Effects
ASR	Archaeological Survey Report
BAFB	Beale Air Force Base
bgs	Below ground surface
BMPs	Best Management Practices
BSA	Biological Study Area
CAA	Clean Air Act
CAL FIRE	California Department of Forestry and Fire Protection
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBSC	California Building Standards Code
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CFGC	California Fish and Game Code
CGP	Construction General Permit
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	Carbon Monoxide
Corps	U.S. Army Corps of Engineers
County	Yuba County
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CSO	Cultural Services Office
CWA	Clean Water Act
dBA	A-weighted decibels
DBH	diameter breast height
EDR	Environmental Data Resources, Inc.
EFH	Essential fish habitat

EFHA	Essential Fish Habitat Assessment
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
ESA	Endangered Species Act
ESA	Environmentally Sensitive Area
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulations
FEMA	Federal Emergency Management Agency
FHSZ	Fire Hazard Severity Zone
FIRM	Flood Insurance Rate Map
FRAQMD	Feather River Air Quality Management District
GHG	Greenhouse Gases
HAER	Historic American Engineering Record
HSWA	Hazardous and Solid Waste Amendments
HWCA	Hazardous Waste Control Act
ISA	Initial Site Assessment
MBTA	Migratory Bird Treaty Act
MEC	Munition and Explosive Concern
MOA	Memorandum of Agreement
MRS	Munitions Response Site
MS4	Municipal Separate Storm Sewer System
MSA	Magnuson-Stevens Fishery Conservation and Management Act
NAAQS	National Ambient Air Quality Standards
NCCP/HCP	Natural Community Conservation Plan/Habitat Conservation Plan
NAHC	Native American Heritage Commission
NEHRP	National Earthquake Hazards Reduction Program
NEHRPA	National Earthquake Hazards Reduction Program Act
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NO_2	Nitrogen Dioxide
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places

O_3	Ozone
OES	Office of Emergency Services
OSHA	Occupational Safety and Health Administration
Pb	Lead
PM	Particulate Matter
PRC	Public Resources Code
Project	Waldo Road over Dry Creek Bridge Replacement Project
PSI	Preliminary Site Investigation
RCEM	Road Construction Emissions Model
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Condition
ROG	Reactive Organic Gases
RWQCB	Regional Water Quality Control Board
SIP	State Implementation Plan
SHPO	State Historic Preservation Office
SO_2	Sulfur Dioxide
SRA	State Responsibility Areas
SSC	Species of Special Concern
SWMPs	Storm Water Management Plans
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic air contaminates
TCRs	Tribal Cultural Resources
THPO	Tribal Historic Preservation Officer
TMDL	total maximum daily load
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WDRs	Waste Discharge Requirements
WOTUS	Waters of the U.S.
WPCP	Water Pollution Control Plan

1 INTRODUCTION

1.1 INTRODUCTION

Yuba County (County) is proposing to implement the Project, which would build a new bridge to carry Waldo Road over Dry Creek, approximately 100 feet upstream from the existing bridge (Bridge No. 16C0006). The Project is located in rural Yuba County, roughly 14 miles northeast of Wheatland. Waldo Road is a generally north/south road and the bridge crosses Dry Creek on a generally north/south alignment. Waldo Road and connecting roads Spenceville Road and Camp Far West Road, are all lightly traveled routes passing through rolling Sierra foothills terrain. The existing bridge is currently classified as structurally deficient, with a sufficiency rating of 9.3. A new bridge is necessary to meet current design and safety standards which can safely convey vehicles, including emergency response vehicles, and pedestrians across Dry Creek. The replacement bridge will meet current applicable County, America Association of State Highway and Transportation Officials, and Caltrans design standards.

1.2 NOTICE OF PREPARATION AND SCOPE

CEQA does not require formal hearings at any stage of the environmental review process (CEQA Guidelines Section 15202[a]). However, it does encourage "wide public involvement, formal and informal, to receive and evaluate public reactions to environmental issues" (CEQA Guidelines Section 15201).

In accordance with the CEQA Guidelines, the County distributed a NOP of a Draft EIR for the proposed Project on August 24, 2022 and gave the public an opportunity to provide comment on the scope of the analysis that should be included in this Draft EIR. The NOP comment period closed on September 26, 2022. The comments received by the County on the NOP were considered in the preparation of this Draft EIR. The scope of this Draft EIR includes the potential environmental impacts identified in the NOP, as well as any issues raised by agencies and the public in response to the NOP. The NOP and comments received during the NOP comment period are contained in Appendix B of this Draft EIR.

1.3 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.

1.4 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, intent of the EIR, and the permits and approvals necessary to complete the Project.
- *Chapter 2, Project Description* includes the Project background, details about the location and existing conditions, No-Build alternative, and construction schedule.
- *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. Analysis used in this chapter is based on a comparison of the CEQA Checklist Guidelines (Appendix A).
- *Chapter 4, Project Alternatives* describes alternatives to the proposed Project that were considered but rejected from further consideration.
- *Chapter 5, CEQA Evaluation and Considerations* included analysis of varying impacts and mitigation measures.
- *Chapter 6, Report Preparers* lists the authors of the EIR and/or technical studies that were prepared for the Project.
- *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.

1.5 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. 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 May 17, 2024 to August 2, 2024). Comments must be received electronically or physically by 5:00pm on the last day of the comment period. Comments about the Draft EIR should include the Project Title (Waldo Road Over Dry Creek Bridge Replacement Project) as the subject line and be addressed to:

Yuba County Public Works
Attn.: Samuel L. Bunton, PE
915 8th Street
Marysville, CA 95901
Or publicworks@co.yuba.ca.us

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. Yuba County will hold a public hearing during a Board of Supervisors meeting that provides for public comment followed by a vote by the Board of Supervisors to determine approval of the Final EIR.

1.6 Purpose and Intended Uses of the Environmental Impact Report

This Draft EIR (State Clearinghouse No. 2022080453) has been prepared according to CEQA Guidelines and CEQA Checklist Guidelines (Appendix A) 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 lead agency is the public agency with primary responsibilities over the proposed Project. In accordance with State CEQA Guidelines Section 15051(b)(1), “the lead agency will normally be the agency with general governmental powers, such as a city of county, rather than an agency with a single of limited purpose.” The County is the CEQA lead agency for this EIR. The Final EIR, after public circulation occurs, will be considered by the Yuba County Board of Supervisors for approval.

Table 3, below, shows a list of permits and other approvals required to implement the Project.

Table 3: Permits Required

Agency	Permit/Approval		Status
	Build Alternative	No-Build Alternative	
California Department of Fish & Wildlife (CDFW)	Section 1600 Streambed Alteration Agreement	No Permit	To be obtained prior to the start of construction
Central Valley Flood Protection Board	Encroachment Permit	No Permit	To be obtained prior to the start of construction
State Historic Preservation Office	Memorandum of Agreement (MOA)	No MOA	MOA approved/signed by the State Historic Preservation Officer
State Regional Water Quality Control Board	Section 401 Water Quality Certification	No Permit	To be obtained prior to the start of construction
State Regional Water Quality Control Board	National Pollution Discharge Elimination System (NPDES) Construction General Permit	No Permit	To be obtained prior to the start of construction
U.S. Army Corps of Engineers	Section 404 Nationwide Permit Authorization	No Permit	To be obtained prior to the start of construction

2 PROJECT DESCRIPTION

2.1 BACKGROUND

The existing Waldo Road Bridge, constructed in 1901, is a seven-span structure spanning Dry Creek. This structure is approximately 240 feet long and 15 feet wide, with the central span being a Pratt through truss. The existing bridge is currently classified as structurally deficient, with a Sufficiency Rating of 34.9. All existing supports appear to be founded on spread footings. The Project proposes to replace the existing Waldo Road Bridge with a similar length structure over Dry Creek. The existing bridge is eligible for listing on both the National Register of Historic Places and the California Register of Historical Resources and will be demolished.

2.2 PROJECT LOCATION AND EXISTING CONDITIONS

The proposed Waldo Road Bridge Replacement Project (Project) is located south of the town of Smartsville in Yuba County, California, section 33, township 15 north, range 6 east, latitude 39° 06'43.24 N and longitude 121° 18'30.85" west (**Figures 1 and 2**). The Project is within the CDFW Spenceville Wildlife Area, an area open to the public for recreational use such as hiking, hunting, camping, fishing, archery, equestrian riding, target shooting, and mountain biking. The Project is located within the Sierra Nevada foothills and is surrounded by hill slope terrain typical of blue oak woodlands and the Sierra Nevada foothills. The land use within the Project area is designated as "Natural Resources" as defined by Yuba County's General Plan and there are no residential units in close proximity or within viewing distance of the existing or proposed bridge.

2.3 PURPOSE AND NEED

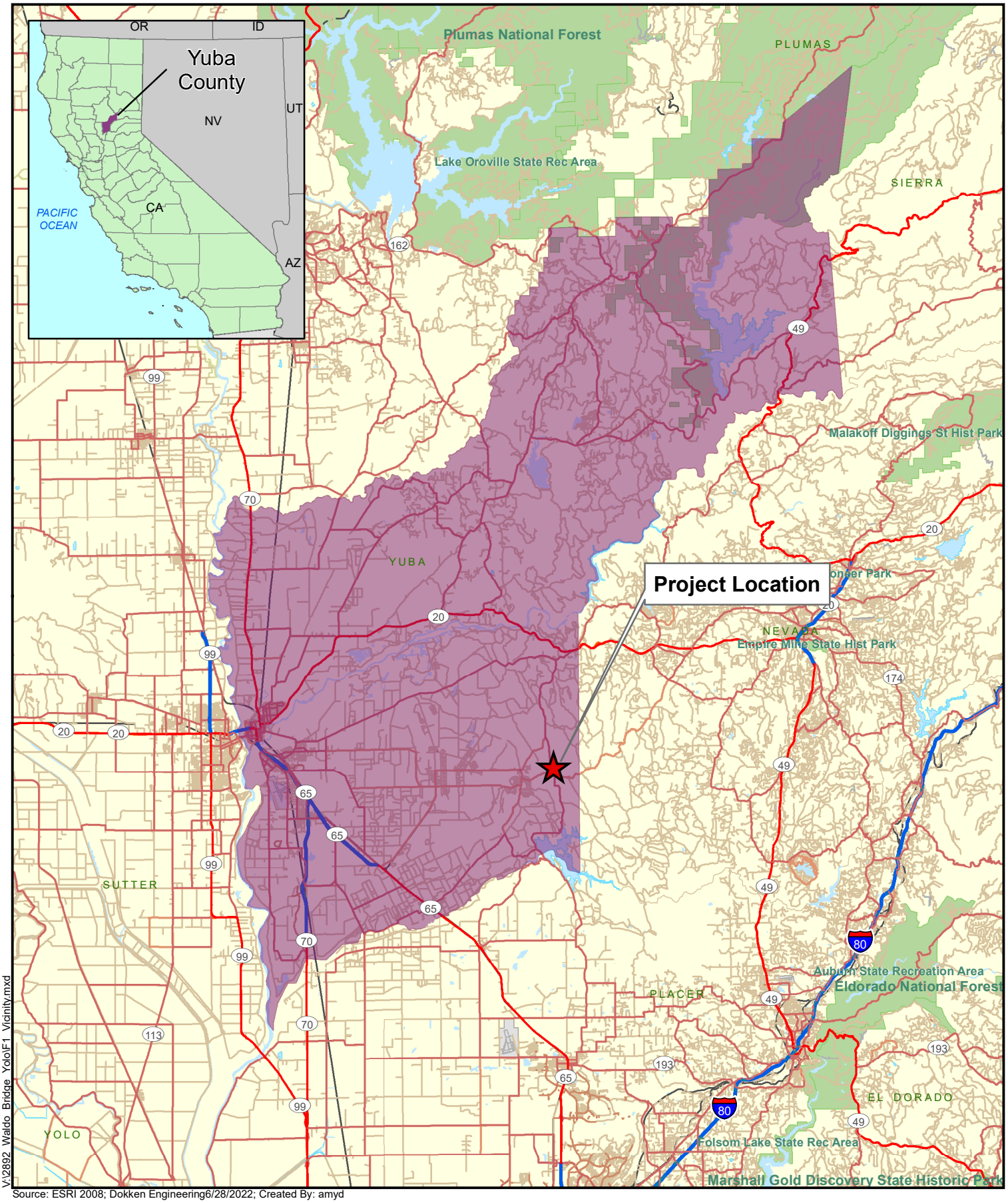
Purpose

The purpose of the Project is to replace the structurally deficient bridge in order to:

- Enhance safety by providing a crossing sufficient for both pedestrian and vehicular use, including emergency vehicles;
- Provide a transportation facility consistent with County and Caltrans Standards, as well as local and regional plans; and
- Remove an environmentally hazardous structure with lead paint.

Need

The existing bridge is currently classified as structurally deficient, with a sufficiency rating of 9.3. A new bridge is necessary to meet current design and safety standards which can safely convey vehicles, including emergency response vehicles, and pedestrians across Dry Creek. Full replacement of the bridge is needed because the current structures do not meet structural design standards, which include substandard curves on both bridge roadway approaches and insufficient width to safely provide crossing by both vehicular and pedestrian users.

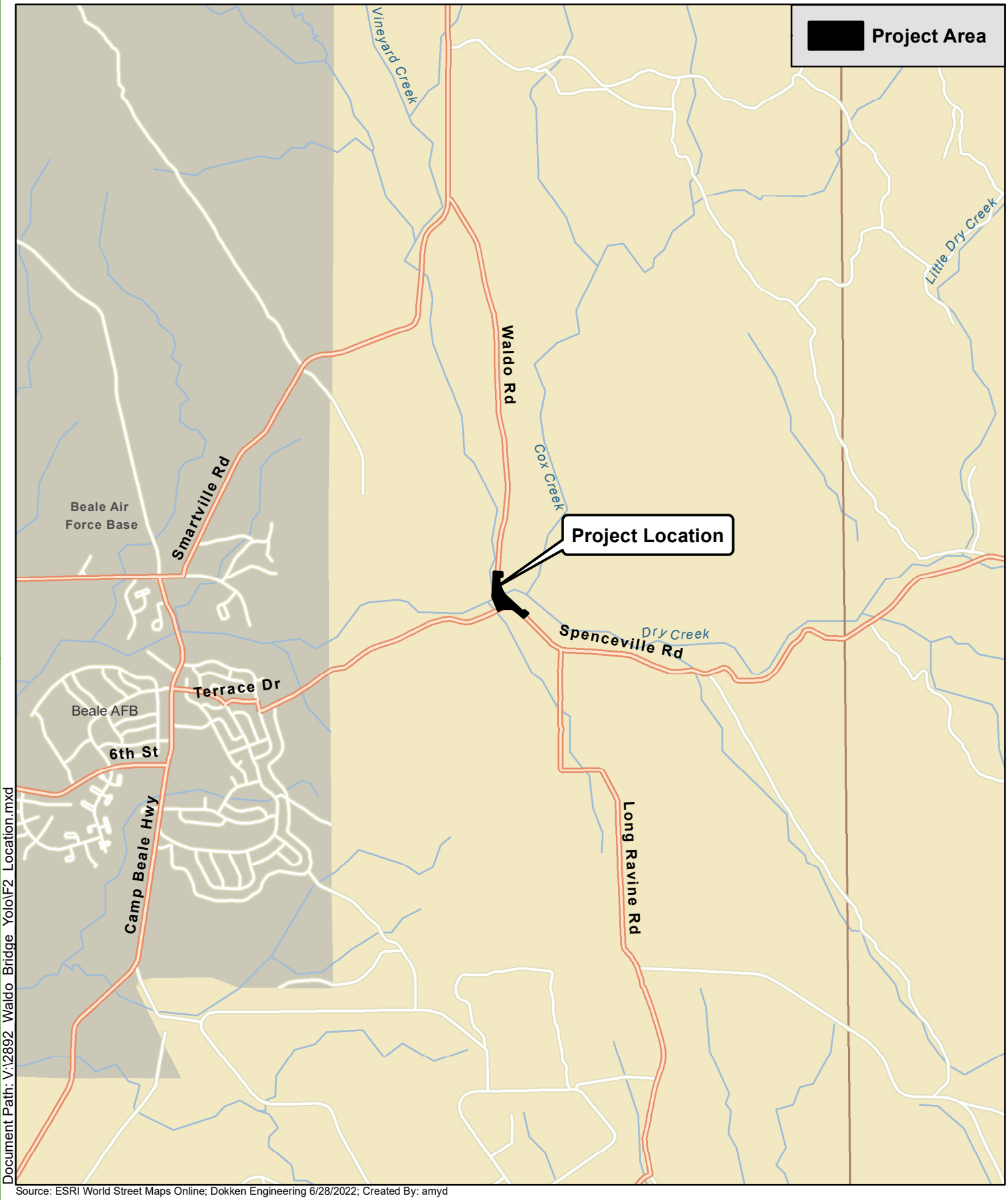


V:\2892_Waldo_Bridge_Yolo\F1_Vicinity.mxd

Source: ESRI 2008; Dokken Engineering6/28/2022; Created By: amyd

0 5 10 15 Miles

Figure 1
Project Vicinity
Waldo Road Bridge over Dry Creek Replacement Project
BRLO-5916(092)
Yuba County California



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Source: ESRI World Street Maps Online; Dokken Engineering 6/28/2022; Created By: amyd

0 0.5 1 1.5 2 Miles

Figure 2
Project Location
Waldo Road Bridge over Dry Creek Replacement Project
BRLO-5916(092)
Yuba County California

2.4 ALTERNATIVES

Two alternatives are being considered for this Project – the Build Alternative and the No-Build Alternative.

2.4.1 Build Alternative

The County is proposing to implement the Waldo Road over Dry Creek Bridge Replacement Project (Project), which would build a new bridge to carry Waldo Road over Dry Creek, approximately 100 feet upstream from the existing bridge (Bridge No. 16C0006). The Project is located in rural Yuba County, roughly 14 miles northeast of Wheatland. Waldo Road is a generally north/south road and the bridge crosses Dry Creek on a generally north/south alignment. Waldo Road and connecting roads Spenceville Road and Camp Far West Road, are all lightly traveled routes passing through rolling Sierra foothills terrain. The bridge is located within the Spenceville Wildlife Area, a 11,900-acre wildlife preserve and public outdoor recreation area administered by CDFW.

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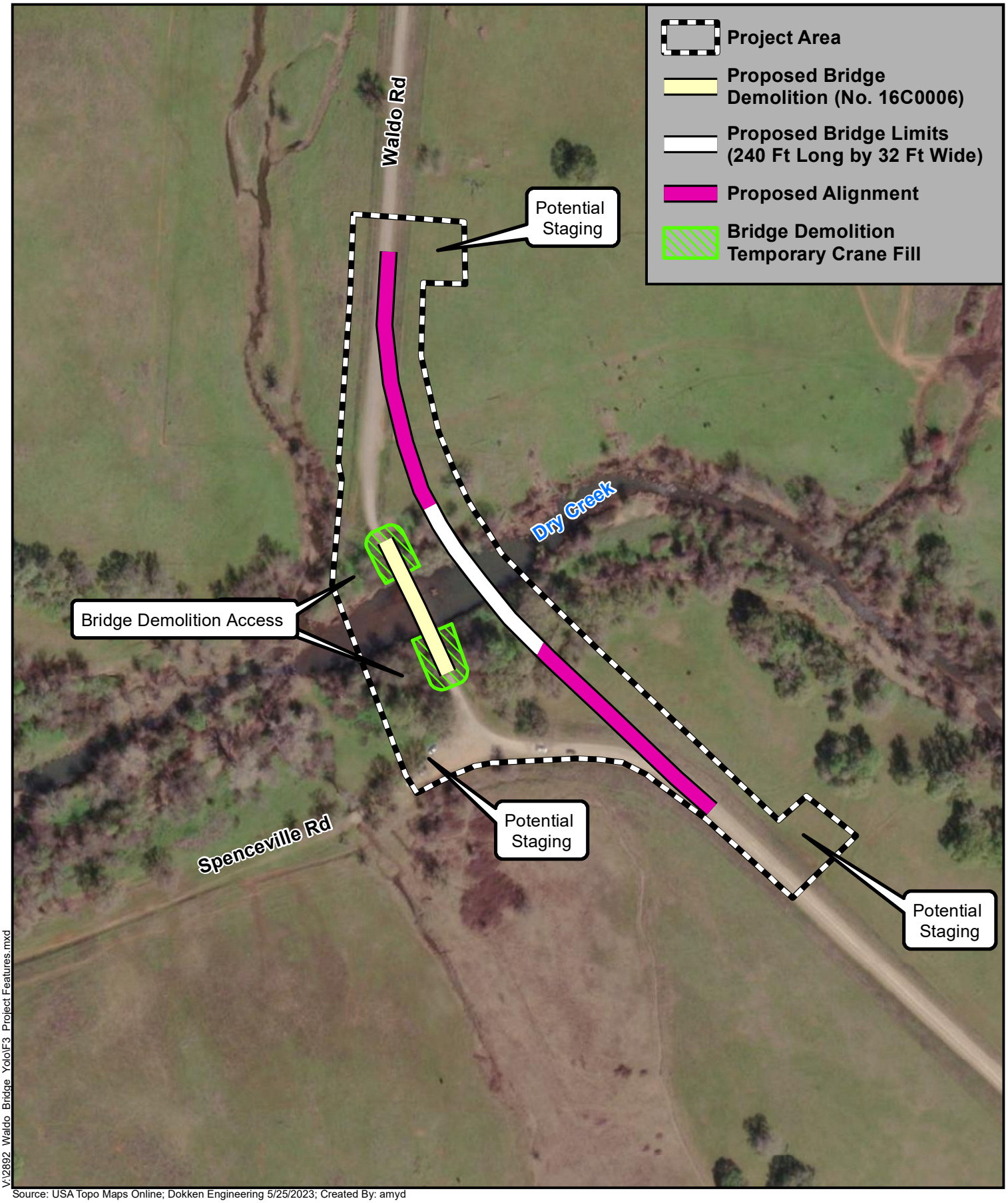
The proposed new bridge is a continuous three-span, post-tensioned concrete box girder bridge. The spans are 72 feet, 96 feet, and 72 feet respectively. It will have two, twelve-foot travel lanes and two, four-foot shoulders and provide a clear width between barrier rails of 34 feet. A vehicular railing will be attached to the edge of deck of the new structure. The piers supporting the intermediate spans will be two, four-foot diameter columns pinned at their bases with end spans supported by seat type abutments with wingwalls protected by rock slope protection. Abutments 1 and 4 (the end supports) will be founded on spread footing foundations, both embedded and doweled into intact rock at each support (**Figure 3**).

The new bridge will require a realignment of the roadway, which will correct the existing substandard curves on roadway approaches to the bridge. The vertical profile of the new bridge will be raised slightly to provide sufficient water conveyance beneath the bridge during flood events. This will also require a slight rise in the approach roadway elevation, which will gradually decrease until the realigned roadway conforms to the existing roadway elevations.

Once the new bridge has been constructed, the existing bridge would be demolished. Preservation and maintenance of the bridge is not possible due to the presence of hazardous lead paint throughout the structure, the non-standard design components, substandard curves, unprotected pedestrian access, and on-going timber and steel maintenance issues.

Acquisition of permanent right-of-way is anticipated for this Project. Since the proposed alignment is shifting the new bridge to the east along with new approach alignments, Yuba County can relinquish right-of-way along the existing alignment to CDFW for use in the Spenceville Wildlife Area.



V:\2892_Waldo_Bridge_Yolo\F3_Project Features.mxd

Source: USA Topo Maps Online; Dokken Engineering 5/25/2023; Created By: amyd

1 inch = 200 feet

0 100 200 300 400 Feet

Figure 3
Project Features
Waldo Road Bridge over Dry Creek Replacement Project
BRLO-5916(092)
Yuba County California

2.4.2 No-Build Alternative

Under the No Build alternative, the existing bridge would not be rehabilitated or replaced. The existing bridge would continue to be classified as structurally deficient. This would result in continued deterioration of the bridge which would likely result in an adverse effect/significant impact under both Section 106 of the National Historic Preservation Act and CEQA. Further, the bridge would continue to have hazardous lead paint and fail to meet current applicable County, America Association of State Highway and Transportation Officials, and Caltrans design standards which will pose a risk to public health and safety.

2.5 CONSTRUCTION ACTIVITIES

The following is a general order of work and the contractor will choose a schedule within the permitted work window.

Waldo Road will remain open to traffic during the construction of the replacement bridge and will utilize the existing road and bridge. The existing bridge will be demolished once the new bridge is constructed and traffic has been shifted to the new alignment.

1. Install construction signs.
2. Perform clearing and grubbing, including any tree removals.
3. Install Creek Diversion. Existing creek will be diverted through the project site by using stacked concrete k-rails wrapped in visqueen plastic or other means to divert the water away from the construction work at piers 2 and 3.
4. Excavate existing ground for pier 2 and pier 3 footings. Excavation depths up to 8' will be required to construct the pier foundations. Place reinforcement, pour and cure footing concrete. Place column reinforcement, form, pour and cure columns at piers 2 and 3.
5. Excavate existing ground for abutment 1 and 4 footings. Excavation depths up to 14' will be required to construct the abutment footings.
6. Place reinforcement, pour, and cure abutment footing concrete. Place abutment reinforcement, form, pour, and cure concrete at abutments 1 and 4.
7. Erect falsework supported on timber pads. Falsework supports will be located outside of flowing water. Excavation depths up to 5' may be required to set the falsework supports.
8. Form, pour and cure superstructure concrete for new bridge. Formwork will be built on falsework, and then reinforcement and concrete will be placed in the forms.
9. Once concrete is cured and stressed, remove falsework from the channel and finish concrete surfaces. The formwork will be stripped from the bridge, the falsework released and removed from the channel. The bridge concrete surfaces will be ground and patched as needed to produce an acceptable finished surface.
10. Construct bridge barrier railing.
11. Backfill behind abutments and place roadway base materials. Place abutment rock slope protection. The roadway will be prepared for final surfacing.
12. Place new pavement.
13. Finish work on areas with the proposed right of way and/or temporary construction easements.

3 ENVIRONMENTAL IMPACT ANALYSIS

The Waldo Road over Dry Creek Bridge Replacement EIR utilizes the CEQA checklist similar to that of an Initial Study (Appendix A). Analysis of each environmental resource 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.

TOPICS CONSIDERED BUT DETERMINED NOT TO BE RELEVANT

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

- **Agriculture and Forestry Resources** – According to the Yuba County General Plan, the Project are does not contain any farmlands, forest lands, timberlands, or Timberland Preserve Zones. There would be no impact to Agriculture and Forestry Resources.
- **Land Use / Planning** – The proposed bridge replacement would not change the land use designation or result in any zoning changes. No impacts to land use and planning would occur.
- **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.
- **Mineral Resources -** The Project area is not located within a Mineral Resource Zone, and as such, there would not be an impact to any known mineral resources.
- **Recreation** – Although the Project is located within the Spenceville Wildlife Area, a 11,900-acre wildlife preserve and public outdoor recreation area administered by CDFW, the Project would have no impact on recreation. The Project is needed to meet current design and safety standards which can safely convey vehicles, including emergency response vehicles, and pedestrian access over Dry Creek. The existing bridge will be replaced with two, twelve-foot travel lanes and will not increase capacity or use of the recreational area.

3.1 AESTHETICS

The purpose of this section is to assess the potential visual impacts 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])."

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 2020).

Local Laws and Requirements

Yuba County General Plan

The Yuba County General Plan Chapter 7 – Natural Resource Element, contains goals, objectives, and policies related to Visual Resources and Aesthetics. The following goals are applicable to Visual Resources and Aesthetics:

- Goal NR9. Visual Resources: *Preservation of Yuba County's important visual resources.*
- Goal NR10. Tree and other Important Vegetation: *Preserve the County's trees and other vegetation that provide aesthetic and habitat benefits.*
- Goal NR 11. Aesthetics of the Built Environment: *New construction is compatible with, and supportive of locally important aspects of the visual environment.*

Yuba County Oak Woodlands and Tree Preservation

The County's 2030 General Plan includes a tree preservation and mitigation ordinance. This ordinance implements state requirements for oak woodlands mitigation (as required by Public Resources Code Section 21083.4, including certain exemptions).

The tree preservation ordinance will address native oak trees measuring 6 inches or more in diameter at breast height (dbh) and all other trees greater than 30 inches dbh. The ordinance will describe the process by which the County determines the significance of impacts related to tree removal. For oak woodlands, mitigation can occur through: conservation easements; planting (up to 50% of mitigation requirement); restoration; contribution to the Oak Woodlands Conservation Fund; or equally effective mitigation formulated by the County during development of this ordinance.

3.1.2 Environmental Setting and Existing Conditions

Aesthetic resources are those natural resources, landforms, vegetation, and human-made structures in the region and local environment that generate sensory reactions and evaluations by viewers. The proposed Project location and setting provides the context for determining the type of changes to the existing visual environment. The Project is located south of the town of Smartsville, within the CDFW Spenceville Wildlife Area, in Yuba County, California. The Project is within the Sierra Nevada foothills and is surrounded by hill slope terrain typical of blue oak woodlands and the Sierra Nevada foothills. Habitat types found within the Project area are blue oak woodland, annual grassland, valley foothill riparian, and lacustrine and riverine. The land use within the proposed Project corridor is designated as Public Lands and is open for recreational use such as hiking, hunting, camping, fishing, archery, equestrian riding, target shooting, and mountain biking. The proposed Project corridor is defined as the area of land that is visible from, adjacent to, and outside the proposed Project area, and is determined by topography, vegetation, and viewing distance.

The Yuba County General Plan EIR identifies scenic vistas as areas that provide views to the Sutter Buttes, Sierra Nevada foothills and mountains, the valley floor, expansive agricultural lands, rivers, and river valleys, and lakes and reservoirs. The Project contains views of the Sierra Nevada foothills. The proposed Project corridor is not within or adjacent to a designated State Scenic Highway according to the California Scenic Highway Mapping System (2019).

3.1.3 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?*

3.1.4 Environmental Impacts

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

According to the 2030 General Plan EIR, areas that provide views of the Sierra Nevada foothills are considered a scenic vista. The Project would consist of building a new bridge approximately 100 feet upstream of the existing bridge. In general, a Project's impact to a scenic vista would occur if development of the Project would substantially change or remove a scenic vista. Permanent impacts would not occur since the area is vast, open, and the view of the Sierra Nevada foothills would not be obstructed. Temporary impacts would be restricted to construction activities, such as construction equipment obstructing views of the Sierra Nevada foothills. These impacts would be short term. Impacts related to the proposed Project would be **Less than Significant.** 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?

There are no officially designated state scenic highways located within Yuba County; therefore, the proposed Project would have **No Impact** on scenic resources within a state scenic highway. 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 Project area is characterized by its rural setting, view of the Sierra Nevada foothills, the existing Waldo Road Bridge, and Dry Creek and its associated vegetation. It is anticipated that a small portion of riparian and oak woodland habitat, which includes trees, will be removed in order to construct the roadway realignment and new bridge. **BIO-1** and **BIO-7** will be implemented to reduce these impacts to less that significant levels. Construction equipment may obstruct views of the Sierra Nevada foothills, but these impacts would be short term. After the replacement bridge is constructed, the existing bridge would be demolished. The replacement bridge will contain standard design features and will not mimic features of the existing bridge; however, the rural setting and views of the Seirra Nevada foothills would remain.

With the implementation of measures **BIO-1** and **BIO-7**, impacts 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?

Construction of the proposed Project would be conducted during daytime hours; no nighttime construction is proposed. No temporary or permanent lighting is proposed. There would be no impact on nighttime views. The proposed Project would result in **No Impacts**. The No-Build alternative would result in **No Impact.**

Alternatives Summary

Build Alternative

Temporary impacts to aesthetics would be caused by construction, such as construction equipment obstructing views of the Sierra Nevada foothills. Additionally, tree removal is expected, and the existing Waldo Road Bridge would be demolished, which would impact the existing visual character of the area. With the mitigation measures below, impacts would be reduced to less than significant levels.

No-Build Alternative

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

See Chapter 3.3 Biological Resources for measures **BIO-1** and **BIO-7.**

3.2 AIR QUALITY

3.2.1 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). Standards have been established for six criteria pollutants that have been linked to potential health concerns; the criteria pollutants are: carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), particulate matter (PM), lead (Pb), and sulfur dioxide (SO_2).

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). **Table 4** 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
Ozone	1-hour 8-hour	0.09 ppm 0.070 ppm	None[b] 0.070 ppm	None[b] 0.070 ppm
Particulate Matter (PM10)	24-hour Annual Mean	50 µg/m^3 20 µg/m^3	150 µg/m^3 None	150 µg/m^3 None
Fine Particulate Matter (PM2.5)	24-hour Annual Mean	None 12 µg/m^3	35 µg/m^3 12 µg/m^3	35 µg/m^3 15 µg/m^3
Carbon Monoxide	8-hour 1-hour	9 ppm 20 ppm	9 ppm 35 ppm	None None
Nitrogen Dioxide	Annual Mean 1-hour	0.030 ppm 0.18 ppm	0.053 ppm 0.100 ppm	0.053 ppm None
Sulfur Dioxide[c]	Annual Mean 24-hour 3-hour 1-hour	None 0.04 ppm None 0.25 ppm	0.030 ppm 0.014 ppm None 0.075 ppm	None None 0.5 ppm None
Lead	30-Day Average Calendar Quarter 3-Month Average	1.5 µg/m^3 None None	None 1.5 µg/m^3 0.15 µg/m^3	None 1.5 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				

µg/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, Federal Highway Administration, 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 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

Feather River Air Quality Management District (FRAQMD) attains and maintains air quality conditions in Sutter and Yuba Counties through air quality planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues.

The clean-air strategy of FRAQMD involves the preparation of plans and programs for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations, and issuance of permits for stationary sources. FRAQMD also inspects stationary sources, responds to citizen complaints; monitors ambient air quality and meteorological conditions, and implements other programs and regulations required by the CAA, CAAA, and CCAA.

Feather River Air Quality Management District

In 1998, FRAQMD published the *Indirect Source Review Guidelines, A Technical guide to assess the Air Quality Impact of Land Use Projects Under the California Environmental Quality Act* (FRAQMD 1998). In 2010, the FRAQMD updated the 1998 guidelines.

FRAQMD has provided CEQA planning guidance online (FRAQMD 2010) to assist with identification of significant adverse air quality impacts and suggest measures that will reduce potential project emissions early in the planning process. Because stationary sources like industrial facilities are largely regulated, the guidelines focus on transportation and land use control measures to reduce emissions to achieve and maintain federal and state health-based air quality standards. Many projects, particularly those prosing new stationary sources, are subject to FRAQMD rules and regulations in effect at the time of construction.

Yuba County General Plan

The Yuba County General Plan Chapter 5- Community Development Element and Chapter 6- Public Health and Safety Element, contains goals, objectives, and policies related to Air Quality.

- Goal CD17. Travel Demand Management: *Reduce costs of transportation infrastructure, increase freedom of mode choice, maintain air quality, and improve the local quality of life by managing travel demand*.
- Goal HS6. Construction Emissions: *Use construction practices and operational strategies that minimize air pollution.*

3.2.2 Environmental Setting and Existing Conditions

Yuba County is located within the Sacramento Valley Air Basin, a multi-county area that shares some characteristics relative to air quality, topography, meteorology, and climate. Air quality is monitored and regulated in Yuba and Sutter Counties by the FRAQMD.

Approximately 60–70% of the air pollution in the FRAQMD area comes from mobile sources. The remaining 30–40% of the air pollution in the FRAQMD area is a result of stationary sources that include agricultural operations, open burning of vegetative wastes, wood burning for residential heating, industrial operations, and other sources. In addition to ambient air quality issues related to ozone and particulate matter, toxic air contaminants (TACs) are a concern for local air quality officials. TACs include a variety of substances from many different sources, such as gasoline stations, highways and railroads, dry cleaners, industrial operations, power plants, and painting operations. The effects of TACs are mostly experienced locally (close to the source).

Criteria Air Pollutants

Ozone

Ozone is a photochemical oxidant, a substance whose oxygen combines chemically with another substance in the presence of sunlight, and the primary component of smog. Ozone is not emitted directly into the air but is formed through complex chemical reactions between precursor emissions of Reactive Organic Gases (ROG) and NOX in the presence of sunlight. ROG are volatile organic compounds that are photochemically reactive. ROG emissions result primarily from incomplete combustion and the evaporation of chemical solvents and fuels. NOX are a group of gaseous compounds of nitrogen and oxygen that result from the combustion of fuels.

Particulate Matter

Respirable particulate matter with an aerodynamic diameter of 10 microns or less is referred to as PM10. PM10 consists of particulate matter emitted directly into the air, such as fugitive dust, soot, and smoke from mobile and stationary sources, construction operations, fires, and natural windblown dust; and particulate matter formed in the atmosphere by condensation and/or transformation of SO2 and ROG (EPA 2009b). PM2.5 includes a subgroup of finer particles that have an aerodynamic diameter of 2.5 microns or less (CARB 2009a).

Carbon Monoxide

CO is a colorless, odorless, and poisonous gas produced by incomplete combustion of fuels, primarily from mobile (transportation) sources. In fact, 63% of the CO emissions in Yuba County are from mobile sources. The remainder of CO emissions is from area and stationary sources, such as residential fuel combustion, woodburning stoves, open burning, electric utilities, and industrial sources (CARB 2009b).

Nitrogen Dioxide

NO2 is a brownish, highly reactive gas that is present in all urban environments. The major human-made sources of NO2 are combustion devices, such as boilers, gas turbines, and mobile and stationary reciprocating internal-combustion engines. Combustion devices emit primarily nitric oxide (NO), which reacts through oxidation in the atmosphere to form NO2 (EPA 2009b). The combined emissions of NO and NO2 are referred to as nitrogen oxides (NOX), which are reported as equivalent NO2. Because NO2 is formed and depleted by reactions associated with photochemical smog (ozone), the NO2 concentration in a particular geographical area may not be representative of the local NOX emission sources

Sulfur Dioxide

SO2 is produced by such stationary sources as coal and oil combustion, steel mills, refineries, and pulp and paper mills.

Lead

Lead is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been mobile and industrial sources. As a result of the phase-out of leaded gasoline, as discussed in detail below, metal processing is currently the primary source of lead emissions. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufacturers.

Existing Air Quality Conditions

Table 5: NAAQS and CAAQS Attainment Status for Yuba County

Pollutant	Designation/Classification	
	State Standards	Federal Standards
Ozone – 1-Hour	Non-attainment - Transitional	--
Ozone – 8-Hour	Non-attainment - Transitional	Unclassified/Attainment
PM_{10}	Non-attainment	Unclassified
$PM_{2.5}$	Attainment	Non-attainment
Carbon Monoxide	Unclassified	Unclassified/Attainment
Nitrogen Dioxide	Attainment	Unclassified/Attainment
Sulfur Dioxide	Attainment	Unclassified
Sulfates	Attainment	--
Lead	Attainment	--
Hydrogen Sulfide	Unclassified	--
Visibility Reducing Particles	Unclassified	--
Source: FRAQMD Indirect Source Review Guidelines, 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**. **Table 6** below shows the FRAQMD thresholds of significance for air pollutants.

Table 6: Feather River Air Quality Management District Thresholds of Significance

Thresholds of Significance					
Project Phase	Nitrogen Oxides (NO_x)	Reactive Organic Gases (ROGs)	Particulate Matter less than 10 microns (PM_{10})	Particulate Matter less than 2.5 microns ($PM_{2.5}$)	Greenhouse Gases (CO_2, CH_4)
Operational	25 lbs/day	25 lbs/day	80 lbs/day	Not yet established	Not yet established
Construction	25 lbs/day multiplies by project length, not to exceed 4.5 tons/year	25 lbs/day multiplies by project length, not to exceed 4.5 tons/year	80 lbs/day	Not yet established	Not yet established
Source: FRAQMD Indirect Source Review Guidelines, 2010					

3.2.3 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?*

3.2.4 Environmental Impacts

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

The existing single lane bridge will be replaced with a two-lane structure in order to match the existing capacity of Waldo Road. As the proposed Project would not increase capacity or add travel lanes, the Project is exempt from a conformity determination under 40 CFR 91.126, Table 2, "Widening narrow pavements or reconstructing bridges (no additional travel lanes)". Additionally, the Project would not result in an increase in emissions. Therefore, the Project will not conflict with or obstruct implementation of any air quality plan and 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 Yuba 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 (BMPs). The Project would be implementing best available control measures, as required by **AQ-1** and **AQ-2**, to reduce dust and particulate spreading. **Table 7** below and Appendix C summarizes the Project emissions, which would not exceed the FRQAMD thresholds with the implementation of **AQ-1** through **AQ-4**.

Table 7: RCEM Emissions Estimates

Pollutant	Maximum Daily Construction Emissions (Pounds per Day)	FRAQMD Construction Emissions Threshold (Pounds per Day)
	Build Alternative	
Respirable Particulate Matter (PM10)	20.61 lbs/day	80 lbs/day
Oxides of Nitrogen (NOX)	10.12 lbs/day	25 lbs/day
Reactive Organic Gas (ROG)	4.75 lbs/day	25 lbs/day
Source: Road Construction Emissions Model, Version 9.0.1 & FRAQMD Indirect Source Review Guidelines, 2010		

Emission from construction equipment powered by gasoline and diesel engines are also anticipated. The RCEM model estimates construction equipment effects of criteria pollutants including NOX, VOCs, and directly emitted PM10. These emissions would be temporary and limited to the immediate area surrounding the construction site. The RCEM model was calculated with the Project's construction anticipated to take approximately 6 months. The Project's construction emissions were modeled using the RCEM developed by Sacramento Metropolitan Air Quality Management District (SMAQMD 2023), which is the accepted model for all CEQA roadway projects throughout California. The RCEM results were then compared with the FRAQMD Air Quality Significance Thresholds to determine if the Project would exceed any regional thresholds of significance.

As summarized in **Table 7**, with implementation of **AQ-1** through **AQ-4**, construction related emissions will not exceed FRAQMD threshold criteria for significant air quality impacts.

Operational Emissions

The Project will be replacing the existing one-lane structure with a new two-lane structure. Operational emissions are not anticipated to increase, as the projected population growth in the area is minimal. In addition, emissions could slightly improve. Currently, vehicles utilizing the bridge idle for periods of time while waiting for oncoming traffic to cross the bridge. Since the Project will be adding an additional lane, idling times should decrease, resulting in less emissions. Therefore, the Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment, and the Project's air quality effects would be considered less than significant with mitigation incorporated. Impacts related to the Project would be **Less than Significant with Mitigation**. The No-Build alternative would also result in **No Impact**.

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

The proposed Project would be located to the east of Beale Air Force Base (BAFB) and south of the town of Smartsville. The proposed construction activities are not expected to generate pollutant concentrations at a sufficient level to be noticed by any nearby residences, particularly given the rural nature of the Project area. Impacts related to the Project would be **Less than Significant**. The No-Build alternative would also 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?

The Project would not allow activities that generate odors considered objectionable. Furthermore, the Project is located in a rural area, and as noted above, any odors generated by the Project would be temporary and consistent with odors emitted from the surrounding rural residences. The proposed Project would result in **No Impact**. The No-Build alternative would also result in **No Impact**.

Alternatives Summary

Build Alternative

Air quality impacts are not anticipated to be significant as a result of the Build Alternative. There will be a temporary increase in emissions during construction, but they will be intermittent and limited. With the mitigation measures below, impacts would be reduced to less than significant levels.

No-Build Alternative

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

3.2.5 Avoidance, Minimization, and/or Mitigation Measures

AQ-1: The most current FRAQMD Best Available Mitigation Measures for Construction Phase shall be incorporated as part of the project.

AQ-2: To mitigate impacts of construction vehicle and equipment emissions during construction, the following Mitigation Measures shall be incorporated as part of the project and included in all construction bid documents:

- Water inactive construction sites and exposed stockpile sites at least twice daily.
- Pursuant to California Vehicle Code, all trucks hauling soil and other loose material to and from the construction site shall be covered or should maintain at least 6 inches of freeboard (i.e. minimum vertical distance between top of load and the trailer).
- Any topsoil that is removed for the construction operation shall be stored on-site in piles not to exceed 4 feet in height to allow development of microorganisms prior to replacement of soil in the construction area. These topsoil piles shall be clearly marked and flagged. Topsoil piles that will not be immediately returned to use shall be revegetated with a non-persistent erosion control mixture.
- Soil piles for backfill shall be marked and flagged separately from native topsoil stockpiles. These soil piles shall also be surrounded by filt fencing, straw wattles, or other sediment barriers or covered unless they are to be immediately used.
- Equipment or manual watering shall be conducted on all stockpiles, dirt/gravel roads, and exposed or disturbed soil surfaces, as necessary, to reduce airborne dust.

AQ-3: The on-road heavy-duty truck fleet used for the Project will be limited to vehicles of model year 2010 or newer.

AQ-4: All off-road equipment used for the Project is required to meet CARB Tier 4 Standard.

3.3 BIOLOGICAL RESOURCES

Biological and botanical surveys were conducted based on the United States Fish and Wildlife Service's (USFWS) Sacramento office species list, CDFW California Natural Diversity Database (CNDDB) search, and the California Native Plant Society's (CNPS) list of rare and endangered plants (Appendix D). All species list inquiries derive from the United States Geological Survey (USGS) "Camp Far West" and surrounding eight 7.5- minute quadrangles. Based on the results of the species lists and habitat conditions, appropriate biological and botanical surveys were conducted. A habitat assessment was conducted on February 10, 2023 by Gallaway Enterprises' biologist, Alexander Smither. The habitat assessment was conducted by walking all accessible areas of the Biological Study Area (BSA) and evaluating potential habitat for special-status species based on vegetation composition and structure, surrounding area, presence of predatory species, microclimate, and available resources (e.g. prey items, nesting sites). On May 24, 2023, Ms. Gregg conducted a general botanical survey and a delineation of Waters of the U.S. (WOTUS) within the Project Boundary using the guidelines of the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (2008).

3.3.1 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 United States Congress passed the Federal Endangered Species Act (ESA) in 1973 to protect species that are endangered or threatened with extinction. The ESA is intended to operate in conjunction with the National Environmental Policy Act to help protect the ecosystems upon which endangered and threatened species depend. The ESA makes it unlawful to "take" a listed animal without a permit. Take is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct." Through regulations, the term "harm" is defined as "an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering."

Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) established procedures designed to identify, conserve, and enhance essential fish habitat (EFH) for those species regulated under a federal fisheries management plan. The MSA requires federal agencies to consult with the National Marine Fisheries Service (NMFS) on all actions, or proposed actions, authorized, funded, or undertaken by the agencies that may adversely affect EFH (MSA section 305[b][2]). A component of this consultation process is the preparation and submittal of an Essential Fish Habitat Assessment (EFHA). The EFH mandate applies to all species managed under an FMP. For the Pacific coast (excluding Alaska), there are three FMPs covering groundfish, coastal pelagic species, and Pacific salmon.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 USC §703) prohibits the killing of migratory birds or the destruction of their occupied nests and eggs except in accordance with regulations prescribed by the USFWS. The bird species covered by the MBTA includes nearly all of those that breed in North America, excluding introduced (i.e. exotic) species (50 Code of Federal Regulations §10.13). Activities that involve the removal of vegetation including trees, shrubs, grasses, and forbs or ground disturbance have the potential to affect bird species protected by the MBTA.

Waters of the United States, Clean Water Act, Section 404

The U.S. Army Corps of Engineers (Corps) and the U.S. Environmental Protection Agency (EPA) regulate the discharge of dredged or fill material into jurisdictional waters of the United States, under the Clean Water Act (§404). The term "waters of the U.S." (WOTUS) is an encompassing term that includes "wetlands" and "tributaries". Wetlands have been defined for regulatory purposes as follows: "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (33 CFR 328.3, 40 CFR 230.3). Wetlands generally include swamps, marshes, bogs, and similar areas." Tributaries are seasonal or perennial water bodies including lakes, stream channels, drainages, roadside ditches, and other surface water features that exhibit an ordinary highwater mark but lack positive indicators for one or more of the three wetland parameters (i.e., hydrophytic vegetation, hydric soil, and wetland hydrology) (33 CFR 328.4).

The Corps may issue either individual permits on a case-by-case basis or general permits on a program level. General permits are pre-authorized and are issued to cover similar activities that are expected to cause only minimal adverse environmental effects. Nationwide permits are general permits issued to cover particular fill activities. All nationwide permits have general conditions that must be met for the permits to apply to a particular Project, as well as specific conditions that apply to each nationwide permit.

Executive Orders 131112; Prevention and Control of Invasive Species

On Feb 3, 1999, Executive Order 13112 was signed establishing the National Invasive Species Council. Executive Order 11312 directs all federal agencies to prevent and control introductions of invasive nonnative species in a cost-effective and environmentally sound manner to minimize their economic, ecological, and human health impacts. Executive Order 11312 established a national Invasive Species Council made up of federal agencies and departments and a supporting Invasive Species Advisory Committee composed of state, local, and private entities. The Invasive Species Council and Advisory Committee oversees and facilitates implementation of the Executive Order, including preparation of a National Invasive Species Management Plan.

Essential Fish Habitat

The MSA of 1976 was established to conserve and manage fishery resources found off the coast, as well as anadromous species and Continental Shelf fishery resources of the United States, by exercising (A) sovereign rights for the purposes of exploring, exploiting, conserving, and managing all fish within the exclusive economic zone established by Presidential Proclamation 5030, dated March 10, 1983, and (B) exclusive fishery management authority beyond the exclusive economic zone over such anadromous species, Continental Shelf fishery resources, and fishery resources in special areas.

State Laws and Requirements

California Endangered Species Act
The California Endangered Species Act (CESA) is similar to the ESA, but pertains to state-listed endangered and threatened species. The CESA requires state agencies to consult with the CDFW when preparing documents to comply with CEQA. The purpose is to ensure that the actions of the lead agency do not jeopardize the continued existence of a listed species or result in the destruction, or adverse modification of habitat essential to the continued existence of those species. In addition to formal listing under the federal and state endangered species acts, "Species of Special Concern" (SSC) receive consideration by CDFW. Species of Special Concern are those whose numbers, reproductive success, or habitat may be threatened.

California Fish and Game Code
The California Fish and Game Code (CFGC) (§3503.5) states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes (hawks, eagles, and falcons) or Strigiformes or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto". Take includes the disturbance of an active nest resulting in the abandonment or loss of young. The CFGC (§3503) also states that "it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto".

Clean Water Act, Seciton 401
The Clean Water Act (§401) requires water quality certification and authorization for placement of dredged or fill material in wetlands and tributaries of the United States. In accordance with the Clean Water Act (§401), criteria for allowable discharges into surface waters have been developed by the State Water Resources Control Board, Division of Water Quality. The resulting requirements are used as criteria in granting National Pollutant Discharge Elimination System (NPDES) permits or waivers, which are obtained through the Regional Water Quality Control Board (RWQCB) per the Clean Water Act (§402). Any activity or facility that will discharge waste (such as soils from construction) into surface waters, or from which waste may be discharged, must obtain an NPDES permit or waiver from the RWQCB. The RWQCB evaluates an NPDES permit application to determine whether the proposed discharge is consistent with the adopted water quality objectives of the basin plan.

Streambed Alteration Agreement
The CDFW is a trustee agency that has jurisdiction under the CFGC (§1600 et seq.). The CFGC (§1602), requires that a state or local government agency, public utility, or private entity must notify CDFW if a proposed Project will "substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the department, or use any material from the streambeds… except when the department has been notified pursuant to Section 1601." If an existing fish or wildlife resource may be substantially adversely affected by the activity, CDFW may propose reasonable measures that will allow protection of those resources. If these measures are agreeable to the parties involved, they may enter into an agreement with CDFW identifying the approved activities and associated mitigation measures.

Rare and Endangered Plants
The CNPS maintains a list of plant species native to California with low population numbers, limited distribution, or otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. Potential impacts to populations of CNPS-listed plants receive consideration under CEQA review. The CNPS California Rare Plant Rank (CRPR) categorizes plants as the following:

- Rank 1A: Plants presumed extinct in California;

- Rank 1B: Plants rare, threatened, or endangered in California or elsewhere;
- Rank 2: Plants rare, threatened, or endangered in California, but more numerous elsewhere;
- Rank 3: Plants about which we need more information; and
- Rank 4: Plants of limited distribution.

The California Native Plant Protection Act (CFGC §1900-1913) prohibits the taking, possessing, or sale within the state of any plants with a state designation of rare, threatened, or endangered as defined by CDFW. An exception to this prohibition allows landowners, under specific circumstances, to take listed plant species, provided that the owners first notify CDFW and give the agency at least 10 days to retrieve (and presumably replant) the plants before they are destroyed. Fish and game Code §1913 exempts from the 'take' prohibition "the removal of endangered or rare native plants from a canal, lateral ditch, building site, or road, or other right of way".

California Environmental Quality Act Guidelines §15380

Although threatened and endangered species are protected by specific federal and state statutes, CEQA Guidelines §15380(d) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. These criteria have been modeled based on the definition in the ESA and the section of the CFGC dealing with rare, threatened, and endangered plants and animals. The CEQA Guidelines (§15380) allows a public agency to undertake a review to determine if a significant effect on species that have not yet been listed by either the USFWS or CDFW (e.g. candidate species, species of concern) would occur. Thus, CEQA provides an agency with the ability to protect a species from a Project's potential impacts until the respective government agencies have an opportunity to designate the species as protected, if warranted.

Local Laws and Requirements

Yuba County General Plan

The Yuba County General Plan Chapter 7 – Natural Resource Element, contains goals, objectives, and policies related to Biological Resources. The following goals are applicable to Biological Resources:

- Goal NR5. Biological Resources: *Protect and restore habitat for special-status species that have the potential to occur in Yuba County.*
- Goal NR10. Tree and other Important Vegetation: *Preserve the County's trees and other vegetation that provide aesthetic and habitat benefits.*

3.3.2 Environmental Setting and Existing Conditions

The BSA incorporates the Project Boundary and 250 feet from the Project Boundary (**Figure 4**). The Project is located within the Sierra Nevada foothills and is surrounded by hill slope terrain typical of blue oak woodlands and the Sierra Nevada foothills. The elevation within the BSA ranges from approximately 252 feet, near Dry Creek, to approximately 280 feet, near the southern end of the Project Boundary. There are three types of soils within the BSA that are recognized by the United States Department of Agriculture (USDA) Natural Resource Conservation Service. The three soils include Auburn loam, 3 to 8 percent slopes, Auburn-Sobrante complex, 3 to 8 percent slopes and Ricecross loam, 0 to 2 percent slopes (NRCS 2022). Water bodies associated with the BSA include seasonal and riparian wetlands, Dry Creek, Vineyard Creek and Albion Creek. Seasonal wetlands within the BSA are attributed to roadway run off which pool in depressional areas or are associated with the fringes of perennial and ephemeral creeks. Riparian wetlands occur along Dry Creek where soils are less permeable. Dry Creek is a perennial, easterly tributary of Bear River, which drains water from the Sierra Nevada Mountains. Vineyard Creek is a northerly, ephemeral tributary of Dry Creek and Albion Creek is an ephemeral, southerly tributary of Dry Creek. Both ephemeral drainages drain water off the nearby Sierra Nevada foothills.

Biological Conditions

Vegetation communities and habitats within the BSA were identified during biological surveys and habitat assessments conducted on February 10, 2023 and May 24, 2023. The BSA consists of blue oak woodland, valley foothill riparian, annual grassland, wetlands, riverine, and barren habitats (**Figure 5**). Habitat types present within the BSA are described below:

Blue Oakwood

Blue oak woodlands occur on the outside fringes of the valley foothill riparian forest, which occur along Dry Creek. The blue oak woodlands consist of a mixture of old and young trees with the majority of the species consisting of blue oak (*Quercus douglasii*) and valley oak (*Quercus lobata*). Blue oak woodlands generally have an overstory of scattered trees on gentle sloping hills, often creating a savannah-like stand (Mayer and Laudenslayer 1988). Blue oaks make up to 85 to 100 percent of tree species composition and the understory is comprised of sparsely scattered shrubs and annual grass species. Species found in association with blue oak woodlands within the BSA include California coffeeberry (*Rhamnus californica*), poison oak (*Toxicodendron diversilobum*), and a variety of annual grassland species. Some of the species that were observed within the blue oak woodlands within and adjacent to the BSA included acorn woodpecker (*Melanerpes formicivorus*), Anna's hummingbird (*Calypte anna*), Lewis's woodpecker (*Melanerpes lewis*), and western fence lizard (*Sceloporus occidentalis*).

Valley Foothill Riparian

Valley foothill riparian habitat occurs on both sides of Dry Creek. This habitat is associated with Dry Creek and its seasonal flooding. Species found in association with valley foothill riparian habitat within the BSA include Fremont cottonwood (Populus fremontii), valley oak, California black walnut (Juglans californica), Oregon ash (Fraxnus latifolia), black willow (Salix goodingii), arroyo willow (Salix lasiolepis), narrowleaf willow (Salix exigua), California wild rose (Rosa californica), and Himalayan blackberry (Rubus armeniacus). According to Mayer and Laudenslayer's A Guide to Wildlife Habitats of California (1988), valley foothill riparian habitat functions as wildlife migration and dispersal corridors, escapement and nesting areas and provides food, shelter and water for a variety of species of resident and migrating wildlife species.

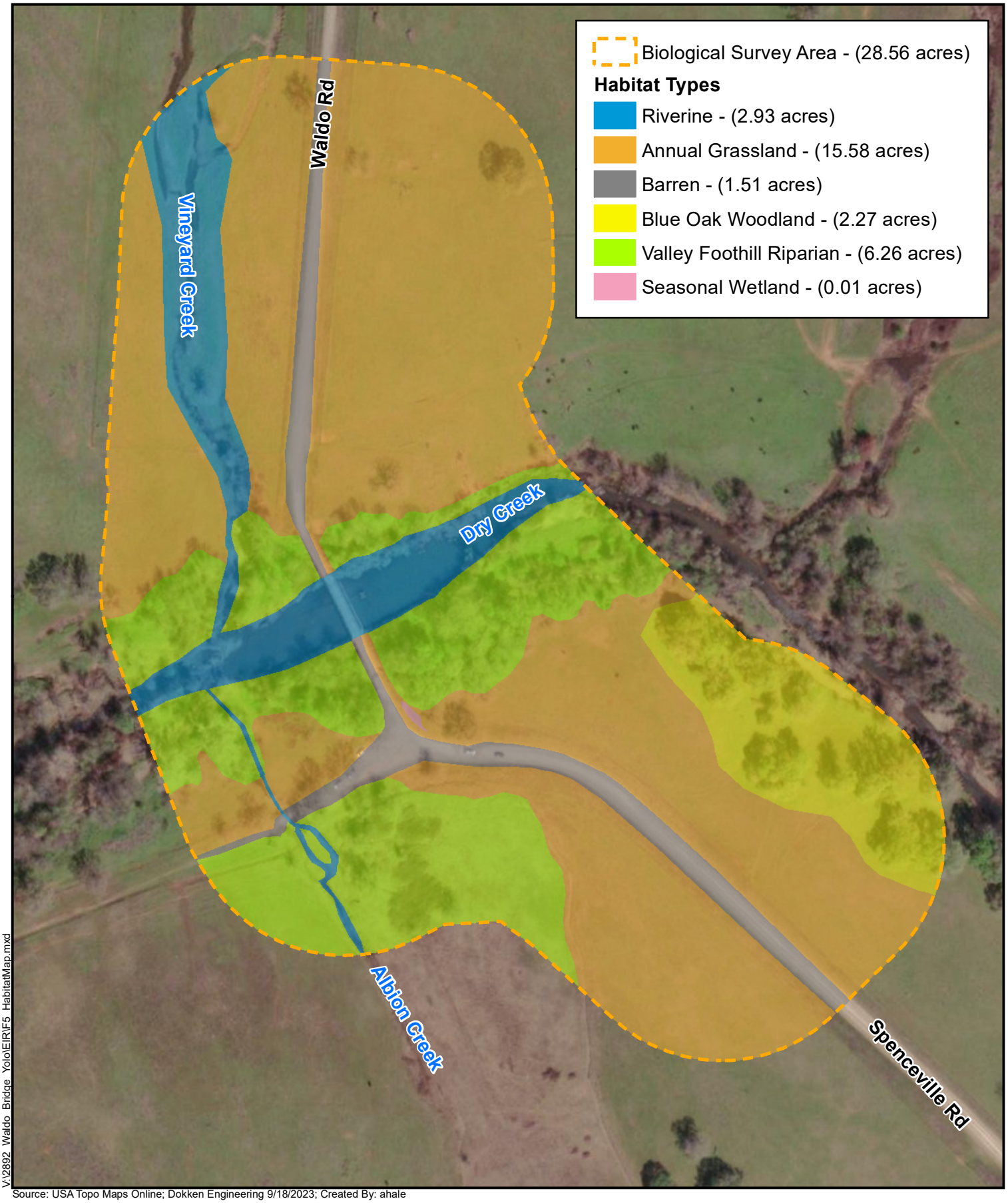
V:\2892_Waldo_Bridge_Yolo\EIR\F4_BSA.mxd

Source: USA Topo Maps Online; Dokken Engineering 9/18/2023; Created By: ahale

1 inch = 200 feet

0 100 200 300 400 Feet

Figure 4
Biological Survey Area
Waldo Road Bridge over Dry Creek Replacement Project
BRLO-5916(092)
Yuba County California



V:\2892_Waldo_Bridge_Yolo\EIR\F5_HabitatMap.mxd

Source: USA Topo Maps Online; Dokken Engineering 9/18/2023; Created By: ahale

1 inch = 200 feet

0 100 200 300 400 Feet

Figure 5
Habitat Map
Waldo Road Bridge over Dry Creek Replacement Project
BRLO-5916(092)
Yuba County California

Annual Grasslands

Annual grasslands make up the majority of the BSA. Annual grasslands occur along Waldo Road and also make up the understory of blue oak woodlands within the BSA. Annual grassland habitats and species composition depend largely on annual precipitation, fire regimes, and grazing practices (Mayer and Laudenslayer 1998). Common species found in the annual grasslands in the BSA include rose clover (*Trifolium hirtum*), rip-gut brome (*Bromus diandrus*) wild oat (*Avena sp*.), soft chess (*Bromus hordeaceus*), and red brome (*Bromus madritensis ssp. rubens*). Invasive species such as yellow star-thistle (*Centaurea solstitialis*), medusahead grass (*Taeniatherum caputmedusae*), and Italian thistle (*Carduus pycnocephalus*) were also observed within the annual grasslands within the BSA (**Table 8**)**.** Wildlife species use grassland habitat for foraging, but require some other habitat characteristic such as rocky out crops, cliffs, caves or ponds in order to find shelter and cover for escapement. Species observed in the BSA within the annual grasslands included American goldfinch (*Spinus tristis*), lesser goldfinch (*Spinus psaltria*), California quail (*Callipepla californica*), and killdeer (*Charadrius vociferus*).

Barren

Barren habitat within the BSA is comprised of gravel road, paved road and the existing bridge. Barren habitat is typified by non-vegetated soil, rock, paved roads, and gravel areas void of vegetation. It is typically considered low-quality habitat for most wildlife species, although some ground nesting avian species such as killdeer (Charadrius vociferous) and small reptiles such as western fence lizards (Sceloporus occidentalis) can be found breeding in barren habitat.

Seasonal and Riparian Wetlands

There are seasonal and riparian wetlands that occur within the BSA. Seasonal wetlands within the BSA are either attributed to roadway run off or associated with ephemeral creeks. Seasonal wetlands that occur along the roadway are depressional areas which water pools long enough to support hydrophytic vegetation and hydric soils. These wetlands occur near Waldo Junction (Waldo Road and Spenceville Road). Other seasonal wetlands within the BSA occur along Albion Creek and Vineyard Creek. Seasonal wetlands that are associated with Albion Creek and Vineyard Creek occur along the fringes of their ordinary high-water marks. Riparian wetlands occur along Dry Creek where soils are less permeable. These wetlands occur in areas, primarily along the north banks of Dry Creek. There is one seasonal wetland and one riparian wetland identified within the Project Boundary.

Dry Creek, Vineyard Creek, and Albion Creek (Riverine)

There are three creeks within the BSA: Dry Creek, Vineyard Creek, and Albion Creek. Dry Creek is a tributary of the lower Bear River, which is an easterly tributary of the Feather River. Dry Creek is a perennial creek rising west of Grass Valley and flowing through Spenceville Wildlife Area and BAFB. It drains water from the Sierra Nevada Mountains through mostly blue oak woodland habitat. Chinook spawn in the lower reaches of Dry Creek. They are blocked from accessing the upper reaches of the creek due to a dam on BAFB that prevents upstream migration (Pers. comm. Mark Carroll). Species observed within Dry Creek include American bullfrog (*Lithobates catesbeianus*), warm water fish species (e.g., sunfish), crawfish, and northwestern pond turtles.

Vineyard Creek is a small, northerly tributary of Dry Creek. It is an ephemeral stream which drains water from the Sierra Nevada foothills during portions of the wet season (October 15 – April 1). Vineyard Creek occurs within the BSA just west of the existing bridge. A large pool forms at the confluence of Vineyard Creek and Dry Creek during portions of the dry season (April 1 – October 15). Species observed within the seasonal pool include warm-water fish species, American bullfrogs, and crawfish.

Albion Creek is a small, southerly tributary of Dry Creek. It is an ephemeral drainage which crosses into the BSA briefly before draining into Dry Creek. It supports an extensive patch of wetland-associated blackberry (*Rubus* spp.) bushes within and just south of the BSA.

3.3.3 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?*

3.3.4 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.

The Project would have **Less Than Significant Impact with Mitigation** on special status species. The No-Build alternative would result in **No Impact**. The BSA does not contain suitable habitat for federally listed wildlife species and any special status plant species. The following special status species have the potential to occur within the BSA:

<u>Northwestern pond turtle (NWPT)</u>

The NWPT is a CDFW Species of Special Concern and is proposed to be listed under the FESA as a threatened species. NWPTs are native to the west coast and are found from Baja California, Mexico north through Klickitat County, Washington. The NWPT is a fully aquatic turtle, inhabiting ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. The species requires suitable basking sites such as logs, rocks and exposed banks and associated upland habitat consisting of sandy banks or grassy open fields for reproduction. The species is omnivorous, consuming aquatic wildlife and vegetation. The NWPT may overwinter in aquatic or muddy substrates or on land as far as 1640 feet from aquatic habitat. NWPT that overwinter in upland habitat can begin movements as early as 25 August (peaking between September and

October) through 30 November. NWPT will begin moving back to aquatic habitat between 1 February and 1 May. Nests are generally found on south facing slopes in flat areas with low vegetation and dry, hard soil. Dry Creek is a perennial stream with seasonal slow to stagnant waters and runs through the BSA. There are rock outcroppings and woody debris within Dry Creek that provide areas for basking and cover for NWPT.

The closest CNDDB occurrence is located in Dry Creek approximately 1 mile east of the existing Waldo Road Bridge (CNDDB 2023). The occurrence was recorded in 2008 by CDFW on a field survey for NWPT.

There is high potential for NWPT to be present within the BSA for the following reasons:

1. There is suitable habitat present within the BSA; and
2. There is a CNDDB occurrence within 1 mile of the BSA.

With implementaiton of **BIO-2** through **BIO-8,** there will be no direct or indirect impacts to NWPT. Direct impacts to NWPT will be avioded by conducting a pre-construciton survey and installing exclusion fencing. Indirect impacts will be avoided by implementing BMPs for water quality and mitigating for the loss of riparian vegetation. Staging areas will be located a minimum of 250 feet from riparian areas and aquatic habitats in order to prevent leaks or spills from fueling or maintenance of construction equipment from entering into water systems. All construction activities within the riparian habitat along Dry Creek will be kept to a minimum to minimize the loss of vegetation. All disturbed areas that will not receive fill and that is feasible with the bridge and roadway realignment design will be restored to riparian habitat by planting in-kind species.

Western Spadefoot

The western spadefott (*Spea hammondii*) is a SSC in California. Within the BSA, suitable habitat for the western spadefoots consists of seasonal wetlands adjacent to grasslands but can also be found in valley foothill hardwood woodlands.

There is a low potential for western spadefoot to occur within the BSA for the following reasons:

1. There is suitable habitat in the form of seasonal wetlands, grassland, and valley foothill hardwood habitat present within the BSA,
2. Wetland habitat within the BSA is marginal;
3. No western spadefoots were observed during the site visit; and
4. The nearest CNDDB occurrences is 14 miles from the BSA.

There will be no direct or indirect impacts to western spadefoot. Direct impacts to western spadefoot will be avoided with the implementation of avoidance and minimization measures **BIO-9** and **BIO-10**.

Burrowing Owl

The burrowing owl is not a state or federally listed species but as of October 10, 2024, was designated as a “candidate species” under the CESA by CDFW. The candidacy designation temporarily applies CESA protections, including protection from “take” of the species without permit authorization, while CDFW determines the species should be listed as threatened or endangered. Burrowing owls prefer habitat with short, sparse vegetation and unoccupied animal burrows. Burrowing owls have site fidelity, often returning to the same location each year. No burrowing owls, unoccupied animal burrows, or signs of burrowing owls were observed during the site visit. There is suitable foraging habitat present within the BSA in the form of annual grasslands. There is low potential for burrowing owls to occur within the BSA for the following reasons:

1. There are no burrowing owl CNDDB records within 5 miles of the BSA;
2. No suitable nesting habitat was observed within the BSA; and
3. There is suitable foraging habitat present within the BSA.

With the implementation of avoidance and minimization measures following the CDFW Staff Report on Burrowing Owl Mitigation (**BIO-11** through **BIO-14**), there will be no direct or indirect impacts to burrowing owls.

California black rail

The California black rail (*Laterallus jamaicensis coturniculus*) is threatened under the CESA and is a Fully Protected species under the CFGC. California black rails prefer freshwater, palustrine emergent, persistent wetlands dominated by rushes, sedges and cattails. There are small, wetland fringes that consist of rushes, sedges and Himalayan blackberry along Vineyard Creek and Albion Creek within the BSA. These wetlands are not palustrine emergent, persistent wetlands and dry seasonally. The closest CNDDB occurrence of California black rail is located along Albion Creek within the BSA. The occurrence was recorded between 2006 and 2008 during Richmond et al. survey of California black rails within the Sierra Nevada foothills. The occurrence is approximately 150 feet from the Project area. According to Jerry Tecklin, who recorded the observation and is the second author of the Richmond et al. 2008 Distribution of California Black Rails in the Sierra Nevada Foothills, this specific location near Albion Creek contains marginal habitat and does not always have occupying California black rails. The area is viewed as marginal as water levels within the wetland area vary yearly and often do not provide adequate water levels for California black rail occupancy.

There are four additional CNDDB occurrences of California black rails within a 1 mile radius of the BSA, and multiple CNDDB occurrences within a 5 mile radius of the BSA (CNDDB 2023). These occurrences are a part of the Sierra Nevada California black rail metapopulation.

There is high potential for California black rails to occur within BSA for the following reasons:

1. There are multiple CNDDB records of California black rail within a 1 mile radius of the BSA;
2. There is suitable habitat present within the BSA.

With the implementation of avoidance and minimization measures (**BIO-15** through **BIO-21**), there will be no direct or indirect impacts to California black rails. Direct impacts will be avoided by beginning construction activities prior to the avian breeding season (March 1 – August 31) or conducting a protocol-level survey to determine absence or presence of California black rails within the BSA and implementing avoidance and minimization measures. Beginning construction activities prior to the avian breeding season will deter California black rails from nesting within close proximity of the Project site; therefore avoiding potential direct impacts to the species. If construction activities cannot occur prior to the avian breeding season, then a protocol-level survey will be conducted to determine the absence or presence of California black rails within the BSA. If California black rails are detected, then CDFW will be contacted for further guidance so as to avoid direct impacts to the species. All construction equipment and personnel will remain within designated routes and areas within the Project area to avoid impacts to California black rails and suitable habitat areas.

Swainson's hawk

Swainson's hawks (*Buteo swainsoni*) are listed as threatened in the state of California. Swainson's hawks prefer open grassland habitats, agricultural fields, and pastures that are adjacent to woodland areas or riparian forests. The BSA contains open grassland areas adjacent to riparian and blue oak woodland habitats. The open grassland areas provide foraging habitat for Swainson's hawks, while the blue oak woodlands and riparian forest provide nesting trees.

The closest Swainson's hawk CNDDB occurrence is located approximately 5.6 miles west of the Project and was recorded in 2004 (CNDDB 2023).

Although suitable foraging and nesting habitat is present, there is low potential for Swainson's hawk to occur within the BSA for the following reasons:

1. There is suitable foraging and nesting habitat present within the BSA;
2. There are no CNDDB occurances within 5 miles of the BSA;
3. Documented nests within 10 miles of the BSA are from 14+ years ago; and,
4. No Swainson's hawks were observed during field surveys.

With the implementation of avoidance and minimization measures (**BIO-22** and **BIO-23**), there will be no direct or indirect impacts to Swainson's hawks as a result of Project activities. Direct and indirect impacts to Swainson's hawks will be avoided by starting construction prior to the avian breeding season (March 1 – August 31) or by conducting a pre-construction survey if construction activities will begin within the avian breeding season. Starting construction activities prior to the avian breeding season will deter Swainson's hawks from nesting within the area where they could potentially be impacted by activities. Conducting a pre-construction survey prior to the start of construction will determine if there are any active Swainson's hawk nests within a quarter-mile of the Project Boundary. If a Swainson's hawk nest is observed, CDFW will be contacted for further guidance and potential additional avoidance and minimization measures may be implemented to avoid impacts.

Tricolored Blackbird

Tricolored blackbirds (*Agelaius tricolor*) are listed as threatened under the CESA. There is suitable nesting habitat for tricolored blackbirds within the BSA where dense patches of blackberry brambles and willow thickets occur, and the surrounding open grasslands provide suitable foraging habitat. There is one tricolored blackbird CNDDB occurrence within 5 miles of the BSA (CNDDB 2023).

There is moderate potential for tricolored balckbird to occur within the BSA for the following reasons:

1. There is suitable habitat present within the BSA; and
2. There is one CNDDB occurrence within 5 miles of the BSA.

With the implementation of avoidance and minimization measures (**BIO-24** and **BIO-25**), there will be no direct or indirect impacts to tricolored blackbird.

Grasshopper Sparrow

Grasshopper sparrows (*Ammodramus savannarum*) are listed as SSC in California. The annual grasslands within the BSA provide suitable habitat for grasshopper sparrows. There is low potential for grasshopper sparrow to occur within the BSA for the following reasons:

1. There is only one CNDDB occurrence of grasshopper sparrow just outside of the BSA from 1994; and
2. There is suitable habitat present within the BSA.

With the implementation of avoidance and minimization measures (**BIO-24** and **BIO-26**), there will be no direct or indirect impacts to grasshopper sparrows.

Long-eared Owl

Long-eared owls (*Asio otus*) are listed as SSC in California. Long-eared owls prefer dense forested habitat with open areas for hunting. There is suitable nesting habitat present within the BSA in the form of riparian forest and oak woodlands. There is low potential for long-eared owls to occur within BSA for the following reasons:

1. There is riparian forest and oak woodlands next to open grassland areas within the BSA;
2. Forests within the BSA are relatively thin; and
3. There is one CNDDB records within a 2-mile radius of the BSA

With the implementation of avoidance and minimization measures (**BIO-24** and **BIO-27**), there will be no direct or indirect impacts to long-eared owls.

Northern Harrier

Northern harriers (*Circus hudsonius*) are listed as SSC in California. There is suitable nesting and foraging habitat in the open grassland areas within the BSA and CNDDB occurrences within a 5-mile radius of the BSA. Therefore, there is moderate potential for northern harriers to occur within the BSA. With implementation of avoidance and minimization measures (**BIO-24** and **BIO-28**), there will be no direct or indirect impacts to northern harriers.

Song sparrow – “Modesto” population

Song sparrow – “Modesto” population (*Melospiza melodia*) are listed as SSC in California. Modesto population song sparrows prefer freshwater marsh or oak riparian habitat. There is low potential for Modesto population song sparrows to occur within BSA for the following reasons:

1. There is suitable riparian forest habitat; and,
2. There is only one CNDDB occurrence 9 miles from the BSA.

With the implementation of avoidance and minimization measures (**BIO-24** and **BIO-29**), there will be no direct or indirect impacts to Modesto population song sparrows.

Yellow Warbler

Yellow warblers (*Setophaga petechia*) are listed as SSC in California. There is a moderate potential for yellow warblers to occur within the BSA since there is suitable nesting habitat (riparian forest) and there is a CNDDB occurrence within 2 miles of the BSA (CNDDB 2023). With the implementation of avoidance and minimization measures (**BIO-24** and **BIO-30**), there will be no direct or indirect impacts to yellow warblers.

Yellow-breasted Chat

Yellow-breasted chats (*Icteria virens*) are listed as SSC in California. There is suitable habitat and records of nesting yellow-breasted chats in association with yellow warblers along Dry Creek east of the BSA. Additionally, there is a CNDDB occurrence within 5- miles of the BSA (CNDDB 2023). Therefore, there is a moderate potential for yellow-breasted chat to occur within the BSA. With the implementation of avoidance and minimization measures (**BIO-24 to BIO-31**), there will be no direct or indirect impacts to yellow-breasted chats.

Pallid Bat

Pallid bats (*Antrozous pallidus*) are designated as a CDFW SSC. Bats with the potential to roost within the Waldo Road bridge include the Townsend's bigeared bat and the pallid bat. These bat species are known to form large maternity colonies and are recognized as a California SSC. During the biological resource evaluations conducted on February 10, 2023, there were no signs of bats roosting within the existing bridge. The timing of the survey may have limited the ability to detect bats. The most active time for bats is spring to late summer when insects are most available and temperatures at night are warm. It is during this active period where colonial roosting bats form maternity colonies and females give birth and raise their young (April 1 – August 31). During the fall and winter, bats go into torpor or migrate to warmer climates. Some bat species leave their maternity roosts and migrate locally to more suitable winter roosts. There is low potential for a maternity colony of pallid bats to occur within the existing Waldo Road Bridge for the following reasons:

1. The bridge provides suitable crevices for roosting bats;
2. A similar bridge structure 1.5 miles north contained a large colony of bats;
3. The surrounding area is undeveloped and largely absent of human disturbances.

With the implementation of avoidance and minimization measures (**BIO-35** through **BIO-37**) there will be no direct or indirect impacts to bat species. Direct and indirect impacts to maternity colonies will be avoided by starting bridge removal activities and construction activities prior to the nonvolant period (April 1 – August 31). Starting bridge removal and bridge construction activities prior to the non-volant period will avoid potential impacts to bats by deterring them from forming a maternity colony within the existing bridge.

If bridge removal activities on the existing Waldo Road Bridge cannot take place prior to the non-volant period, then exclusion and monitoring activities will be implemented. Preventing bats from roosting within the existing bridge will prevent the potential presence of a maternity colony and potential impacts caused by bridge removal activities.

If bridge removal of the existing Waldo Road Bridge is conducted prior to the non-volant period, yet construction activities for the new bridge cannot take place prior to the nonvolant period than a pre-construction bat exit survey will be conducted. If a bat roost is observed, then additional avoidance and minimization measures will be implemented that will reduce potential impacts to the bat colony. Avoidance and minimization measures will minimize human disturbances around the existing bridge during construction. Minimizing human disturbances around the bridge will allow bats to roost within the bridge without causing significant impacts to the colony.

Western Red Bat

The western red bat (*Lasiurus blossevillii*) is a SSC in California. Western red bats prefer roosting in riparian forests associated with large cottonwoods and sycamore trees. They can also be found roosting in oak woodlands and orchards adjacent to water bodies. Western red bats are solitary roosting bats and will roost in the foliage of large trees.

Within the riparian habitat along Dry Creek there are large valley oak and Fremont cottonwoods. These trees serve as suitable roosting habitat for western red bats. Open grasslands occur next to the riparian habitat, which function as adjacent foraging habitat. The surrounding landscape is also largely undeveloped and undisturbed by human activities. Nearby water sources such as Dry Creek also make this area ideal for roosting western red bats.

The closest CNDDB occurrence is approximately 9 miles north of the Project site along Porter Creek. According to the CNDDB, the occurrence was recorded in 2006 (CNDDB 2023). There are no other CNDDB occurrences within 30 miles of the BSA. There were no western red bats observed during the biological evaluation conducted on Feburary 10, 2023.

There is moderate potential for western red bats to occur within BSA for the following reasons:

1. There is suitable roosting habitat within the BSA;
2. The suitable roosting habitat is adjacent to suitable foraging habitat; and,
3. The surrounding area is undeveloped and largely absent of human disturbances.

With the implementation of avoidance and minimization measures (**BIO-38** through **BIO-40**), there will be no direct or indirect impacts to western red bats. Direct impacts will be avoided by conducting a pre-construction survey prior to the start of construction activities. If roosting western red bats are found, additional avoidance and minimization measures may be implemented to avoid impacts to western red bats. Potential indirect impacts will be avoided by mitigating for the loss of riparian vegetation onsite. A vegetation plan will be created that will mitigate on-site for the loss of riparian habitat. All disturbed areas that will not receive fill will be restored to riparian habitat by planting in-kind species when feasible with the bridge and roadway realignment design.

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.

It is anticipated that a small portion of riparian and oak woodland habitat will be removed in order to construct the roadway realignment and new bridge. All trees associated with riparian and oak woodland habitat that are 4 inches DBH and larger will be mitigated for at a 3:1 ratio onsite (**Table 8**). Should it be determined that onsite mitigation is infeasible, an offsite mitigation option or other approved methods would be considered during the permitting phase of the Project. A vegetation plan will also be created. Trees to be replanted will represent the species of trees that are removed. During biological surveys, an inventory of tree species and their DBH were recorded for trees that would potentially be removed. Trees that will be removed reside on the northeast and southeast side of the existing bridge. On the northeast side of the existing bridge approximately one blue oak, four Oregon ash, one California black walnut, and nine narrowleaf willow will be potentially removed. On the southeast side of the existing bridge, approximately sixty-five valley oak, fifteen Oregon ash, and one California black walnut will be potentially removed. Of those trees that will potentially be removed, a total of one blue oak, eighteen Oregon ash, two California black walnut, forty-eight valley oak and nine narrowleaf willow shall be mitigated at a 3:1 ratio on-site as these trees demonstrate a DBH of four inches and greater and are associated with riparian habitat and/or oak woodland habitat (**Table 8**). With implementation of **BIO-1**, impacts related to

the proposed Project would be **Less than Significant with Mitigation**. The No-Build alternative would result in **No Impact**.

Table 8. Number of Trees and Tree Species to be Mitigated

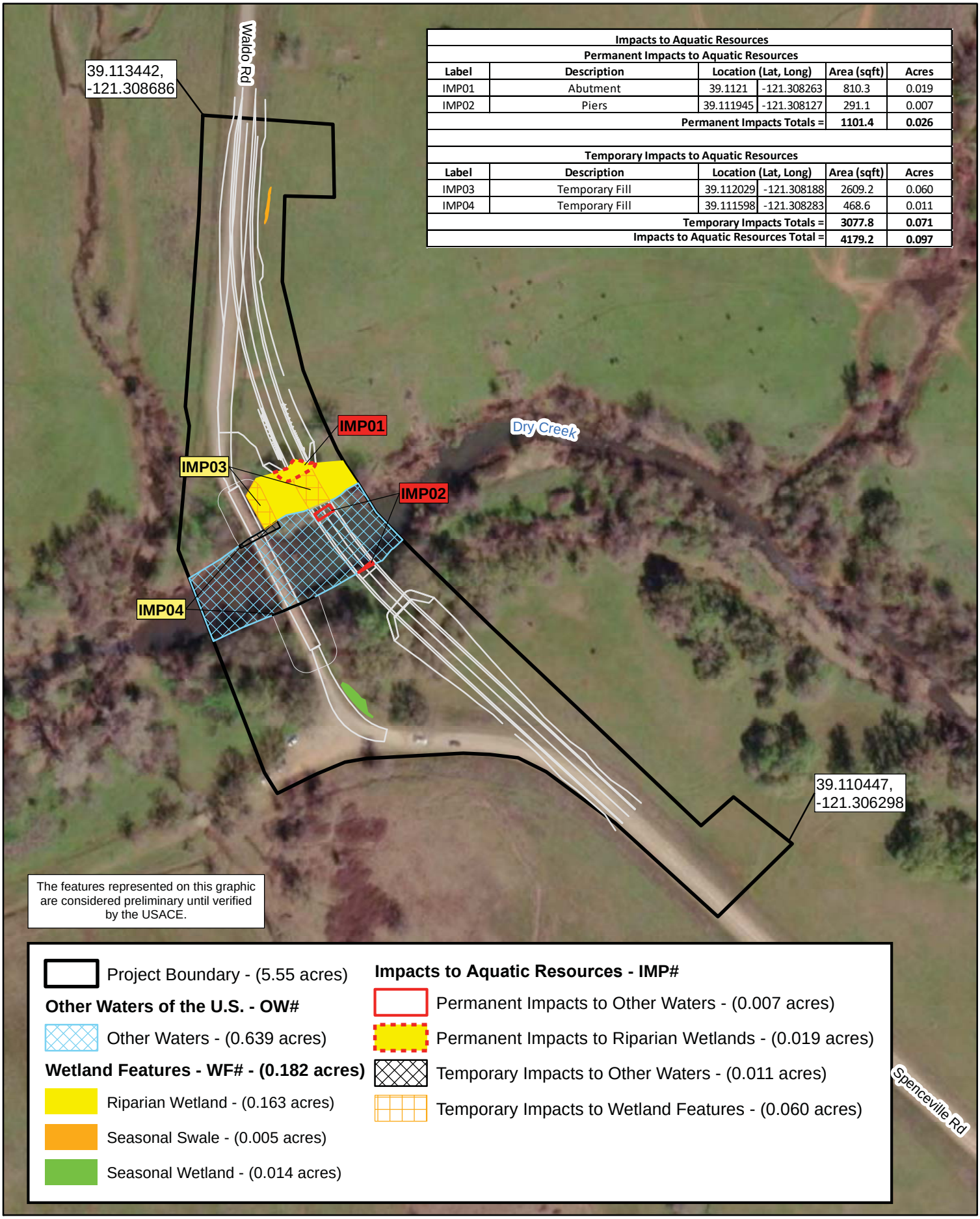
Scientific Name	Common Name	Number of Trees 4" DBH and greater			Mitigation Ratio	Number of Trees Mitigated
		NE	SE	Total		
Quercus douglasii	Blue Oak	1	0	**1**	3:1	3
Fraxnus latifolia	Oregon Ash	4	14	**18**		54
Juglans californica	California Black Walnut	1	1	**2**		6
Quercus lobata	Valley Oak	0	48	**48**		144
Salix exigua	Narrowleaf Willow	9	0	**9**		27
Total						**234**

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.

Wetlands within the Project Boundary include one seasonal wetland, one riparian wetland, and one seasonal swale. The riparian wetland is located on the northeast bank of Dry Creek and the existing Waldo Road Bridge. During high flows of Dry Creek this area is sufficiently inundated and drains slowly, which create wetland conditions not found in the riparian forest on the opposite shore. There are 0.199 acres of wetlands within the Project area. Additionally, Dry Creek, a WOTUS, is present in the Project Boundary and encompasses a total of 0.639 acres.

Construction of the Project would result in approximately 0.019 acres of permanent impacts and 0.011 acres of temporary impacts to riparian wetland features and 0.007 acres of permanent impacts and 0.011 acres of temporary impacts to Dry Creek (**Figure 6**). No impacts will occur to the seasonal wetland or seasonal swale within the Project boundary.

A CDFW 1602 Lake and Streambed Alteration Agreement, RWQCB 401 Water Quality Certification and Corps 404 Nationwide 14 permit will be necessary as vegetation removal, discharges, and dredging will occur within WOTUS during the construction of the roadway realignment and new bridge. With implementation of **BIO-41**, mitigation for impacts to jurisdictional WOTUS will be reduced. Therefore, impacts related to the proposed Project would be **Less than Significant with Mitigation**. The No-Build alternative would result in **No Impact**.



Impacts to Aquatic Resources					
Permanent Impacts to Aquatic Resources					
Label	**Description**	**Location (Lat, Long)**		**Area (sqft)**	**Acres**
IMP01	Abutment	39.1121	-121.308263	810.3	0.019
IMP02	Piers	39.111945	-121.308127	291.1	0.007
			Permanent Impacts Totals =	**1101.4**	**0.026**
Temporary Impacts to Aquatic Resources					
Label	**Description**	**Location (Lat, Long)**		**Area (sqft)**	**Acres**
IMP03	Temporary Fill	39.112029	-121.308188	2609.2	0.060
IMP04	Temporary Fill	39.111598	-121.308283	468.6	0.011
			Temporary Impacts Totals =	**3077.8**	**0.071**
			Impacts to Aquatic Resources Total =	**4179.2**	**0.097**

NORTH

1:2,000 1 inch = 167 feet

0 75 150 Feet

Data Sources: ESRI, Yuba County, Dokken Engineering, Maxar 03/22/2023

Waldo Road Bridge Replacement Project
Preliminary Impacts to Aquatic Resources
Figure 6

gallaway ENTERPRISES

GE: #18-096 Map Date: 06/06/2023

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.

During the February 10, 2023 survey, no nests were observed within the accessible areas of the BSA or on Waldo Road Bridge; however, two inactive nests were observed just outside of the BSA. In a previous biological resource evaluation, conducted on January 11, 2019 by Gallaway Enterprises personnel, there were avian nests observed within and on the existing Waldo Road Bridge. Cliff swallows (*Petrochelidon pyrrhonota*), barn swallows (*Hirundo rustica*), and black phoebes (*Sayornis nigricans*) commonly nest on the sides or pillars of bridges. These species make open and closed mud nests that are constructed of mud mixed with saliva and annual grasses. Nests are often reused every year during the breeding season and are reconstructed if damaged, eradicated, or occupied.

Nesting migratory birds protected under the MBTA are known to occur within the BSA based on observations during the biological resource evaluation. With the implementation of avoidance and minimization measures (**BIO-32** through **BIO-34**) there will be no direct impacts to migratory birds protected under the MBTA and CFGC.

As documented in the Project's Natural Environment Study (2023), fish species and habitat are presumed absent in the BSA since a dam with inadequate fish passage on BAFB prevents fish passage into areas of Dry Creek within the BSA. Interference with the movement of migratory fish would not occur. Impacts to nesting migratory birds 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 County has no ordinances explicitly protecting biological resources. Therefore, the proposed Project would result in **No Impact**. 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.

No habitat conservation plans or similar plans currently apply to the Project site. Both Yuba and Sutter Counties recently ended participation in a joint Yuba-Sutter Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP). The Project site was not located within the proposed boundaries of the former plan and no conservation strategies have been proposed to date which would be in conflict with the Project. Therefore, the proposed Project would have **No Impact**. The No-Build alternative would result in **No Impact**.

Alternatives Summary

Build Alternative

Construction of the Build Alternative would result in impacts to special status species and migratory bird species. With implementation of the measures below, impacts would be reduced to less than significant levels.

No-Build Alternative

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

3.3.5 Avoidance, Minimization, and/or Mitigation Measures

BIO-1: All trees associated with riparian and oak woodland habitat that are 4 inches diameter breast height (DBH) and larger will be mitigated for at a 3:1 ratio onsite. Should it be determined that onsite mitigation is infeasible, an offsite mitigation option or other approved methods would be considered during the permitting phase of the Project.

BIO-2: Immediately prior to the start of work, a qualified biologist shall conduct a survey to determine the presence or absence of northwestern pond turtles. If northwestern pond turtles are observed where they could be potentially impacted by Project activities, as determined by the on-site biologist, then work shall not be conducted within 100 feet of the sighting until the turtle(s) have left the Project site or a qualified biologist has relocated the turtle(s) immediately outside of the Project site.

BIO-3: If turtle eggs are uncovered during construction activities, then all work shall stop within a 25-foot radius of the nest and the qualified biologist should be notified immediately. The 25-foot buffer should be marked with identifiable markers that do not consist of fencing or materials that my block the migration of young turtles to the water or attract predators to the nest site. No work will be allowed within the 25-foot buffer until the turtle eggs have hatched or the nest fails.

BIO-4: All portions of the Project site that could result in inadvertently trapping turtles, such as open pits, trenches, and de-watered areas will be covered and/or exclusion fencing will be installed to prevent turtles from entering these areas.

BIO-5: Staging areas as well as fueling and maintenance activities shall be a minimum of 250 feet from riparian or aquatic habitats. The Project proponent shall prepare a spill prevention and clean-up plan.

BIO-6: The Project shall administer BMPs to protect water quality and control erosion.

BIO-7: All construction activities conducted in the riparian area along Dry Creek will be kept at a minimum to minimize vegetation removal and pruning.

BIO-8: All riparian habitat that is to be removed for the construction of the roadway realignment and new bridge will be mitigated for at a 3:1 ratio onsite. Should it be determined that onsite mitigation is infeasible, an offsite mitigation option or other approved methods would be considered during the permitting phase of the Project.

BIO-9: Two nighttime preconstruction surveys will be conducted during or immediately following separate precipitation events between October and May when ponded water is present.

BIO-10: Should any life stages of western spadefoot be found within the Project boundary, CDFW will be consulted prior to the initiation of Project activities to determine appropriate avoidance and minimization efforts.

BIO-11: A preconstruction survey shall be conducted within 14 days of the start of Project activities.

BIO-12: If there is a lapse between Project activities of more than 14 days, an additional survey shall be conducted within 24 hours prior to ground disturbance.

BIO-13: If a burrowing owl or its burrow is observed within the Project limits or within 500 feet of the Project limits, work will stop within 500 feet of the observation, and the GE Project Manager and the Resident Engineer shall be contacted.

BIO-14: Additionally, if a burrowing owl or its burrow is observed on site, the Contractor shall implement avoidance and minimization measures.

BIO-15: Begin construction activities outside of the avian breeding season (March 1 – August 31) to avoid potential impacts to nesting California black rails and deter California black rails from nesting within close proximity of the Project site.

BIO-16: If Project activities cannot begin outside of the avian breeding season (March 1 – August 31) then a California black rail survey will be conducted employing the protocol used in the Richmond *et al.* 2008 *Distribution of California Black Rails in the Sierra Nevada Foothills* to determine presence or absence of California black rails within the BSA. Survey(s) must include the following protocol measures:

- A qualified biologist, with working knowledge of California black rail protocol-level surveys, will conduct three California black rail surveys using the CDFW-approved Richmond *et al.* (2008) call playback survey protocol within suitable habitat areas in the BSA (i.e., Albion Creek and Vineyard Creek). Surveys will be conducted a minimum of 2 weeks apart OR a minimum of 1 week apart if construction is to begin within 7 days of the last survey.
- Avoid conducting surveys during environmental conditions that may affect the ability to hear or see California black rails (i.e., heavy rain, dense fog, winds > 20 mph).
- If California black rails are detected within or within close proximity of the BSA, then the County will be notified within two working days of the observation and will consult with CDFW for further guidance.
- If, for any reason, construction activities are stopped for 15 days or more within the avian breeding season, then one additional California black rail survey will be conducted prior to reinitiating construction activities.

BIO-17: During construction activities, all trash shall be removed from the worksite and disposed of regularly. Following construction, all trash and construction debris shall be removed from work areas.

BIO-18: All construction equipment shall stay within designated areas and within designated construction traffic routes to avoid any unnecessary vegetation and/or ground disturbances. When construction equipment or construction related vehicles are in route, they shall remain at a low speed limit to minimize dust.

BIO-19: There shall be no staging of construction equipment outside of the Project Boundary.

BIO-20: All construction personnel shall remain in the limits of the Project Boundary and will avoid wetland areas around Albion Creek and Vineyard Creek.

BIO-21: All fueling and/or equipment maintenance shall occur 250 feet from all water bodies and riparian areas, except for stationary equipment, and a spill prevention plan shall be approved by regulatory agencies.

BIO-22: Begin construction activities prior to the avian breeding season (March 1 – August 31) to avoid potential impacts to nesting Swainson's hawk and to deter Swainson's hawks from nesting within a quarter-mile of the Project Boundary.

BIO-23: If Project activities cannot begin prior to the avian breeding season (March 1 – August 31), then a Swainson's hawk pre-construction survey will be conducted to determine presence or absence of nesting Swainson's hawks within a quarter-mile of the Project

Boundary. A pre-construction survey will be conducted within 7 days prior to ground disturbing activities. Survey(s) must include the following protocol measures:

- Conduct a Swainson's hawk pre-construction survey 7 days prior to construction activities within a quarter-mile radius of the Project Boundary.
- If a Swainson's hawk nest is observed within a quarter-mile radius of the Project Boundary, the County will be notified and will then consult with CDFW for further guidance.
- If construction activities stop for 15 days or longer, another Swainson's hawk survey will be conducted within 7 days prior to the continuation of construction activities.

BIO-24: Project activities, including site grubbing and vegetation removal, within the BSA shall be initiated outside of the bird nesting season (March 1 – August 31).

BIO-25: If Project activities cannot be initiated outside of the bird nesting season, or if there is a lapse in construction of 15 days or longer during the bird nesting season, then the following will occur:

- A qualified biologist will conduct a pre-construction survey within 7 days prior to starting work.
- If an active tricolored blackbird nest (i.e. with egg(s) or young) is observed within 200 feet of the Project Boundary during the pre-construction survey, then a species protection buffer will be established. The species protection buffer will be defined by the qualified biologist in consultation with CDFW. Construction activity shall be prohibited within the buffer zones until the young have fledged or the nest fails. Nests shall be monitored twice per week by a qualified biologist and a report submitted to the County.

BIO-26: If Project activities cannot be initiated outside of the bird nesting season, or if there is a lapse in construction of 15 days or longer during the bird nesting season, then the following will occur:

- A qualified biologist will conduct a pre-construction survey within 7 days prior to starting work.
- If an active grasshopper sparrow nest (i.e. with egg(s) or young) is observed within 200 feet of the Project Boundary during the pre-construction survey, then a species protection buffer will be established. The species protection buffer will be defined by the qualified biologist in consultation with CDFW. Construction activity shall be prohibited within the buffer zones until the young have fledged or the nest fails. Nests shall be monitored twice per week by a qualified biologist and a report submitted to the County.

BIO-27: If Project activities cannot be initiated outside of the bird nesting season, or if there is a lapse in construction of 15 days or longer during the bird nesting season, then the following will occur:

- A qualified biologist will conduct a pre-construction survey within 7 days prior to starting work.
- If an active long-eared owl nest (i.e. with egg(s) or young) is observed within 200 feet of the Project Boundary during the pre-construction survey, then a species protection buffer will be established. The species protection buffer will be defined by the qualified biologist in consultation with CDFW. Construction activity shall be

prohibited within the buffer zones until the young have fledged or the nest fails. Nests shall be monitored twice per week by a qualified biologist and a report submitted to the County.

BIO-28: If Project activities cannot be initiated outside of the bird nesting season, or if there is a lapse in construction of 15 days or longer during the bird nesting season, then the following will occur:

- A qualified biologist will conduct a pre-construction survey within 7 days prior to starting work.
- If an active northern harrier nest (i.e. with egg(s) or young) is observed within 200 feet of the Project Boundary during the pre-construction survey, then a species protection buffer will be established. The species protection buffer will be defined by the qualified biologist in consultation with CDFW. Construction activity shall be prohibited within the buffer zones until the young have fledged or the nest fails. Nests shall be monitored twice per week by a qualified biologist and a report submitted to the County.

BIO-29: If Project activities cannot be initiated outside of the bird nesting season, or if there is a lapse in construction of 15 days or longer during the bird nesting season, then the following will occur:

- A qualified biologist will conduct a pre-construction survey within 7 days prior to starting work.
- If an active Modesto population song sparrow nest (i.e. with egg(s) or young) is observed within 200 feet of the Project Boundary during the preconstruction survey, then a species protection buffer will be established. The species protection buffer will be defined by the qualified biologist in consultation with CDFW. Construction activity shall be prohibited within the buffer zones until the young have fledged or the nest fails. Nests shall be monitored twice per week by a qualified biologist and a report submitted to the County.

BIO-30: If Project activities cannot be initiated outside of the bird nesting season, or if there is a lapse in construction of 15 days or longer during the bird nesting season, then the following will occur:

- A qualified biologist will conduct a pre-construction survey within 7 days prior to starting work.
- If an active yellow warbler nest (i.e. with egg(s) or young) is observed within 200 feet of the Project Boundary during the pre-construction survey, then a species protection buffer will be established. The species protection buffer will be defined by the qualified biologist in consultation with CDFW. Construction activity shall be prohibited within the buffer zones until the young have fledged or the nest fails. Nests shall be monitored twice per week by a qualified biologist and a report submitted to the County.

BIO-31: If Project activities cannot be initiated outside of the bird nesting season, or if there is a lapse in construction of 15 days or longer during the bird nesting season, then the following will occur:

- A qualified biologist will conduct a pre-construction survey within 7 days prior to starting work.

- If an active yellow-breasted chat nest (i.e. with egg(s) or young) is observed within 200 feet of the Project Boundary during the pre-construction survey, then a species protection buffer will be established. The species protection buffer will be defined by the qualified biologist in consultation with CDFW. Construction activity shall be prohibited within the buffer zones until the young have fledged or the nest fails. Nests shall be monitored twice per week by a qualified biologist and a report submitted to the County.

BIO-32: Any vegetation removal, ground disturbances, and removal actions to the existing Waldo Road Bridge should be conducted prior to the avian breeding season (March 1 – August 31).

BIO-33: If the construction of the new bridge and roadway realignment will occur during the avian breeding season (March 1 – August 31), prior to the start of construction, a migratory bird and raptor survey will be conducted by a qualified biologist to identify any active nests within 200 feet of the Project Boundary. A qualified biologist shall:

- Conduct a survey for all birds protected by the MBTA and CFGC within 7 days prior to the initiation of construction activities and map all nests located within 200 feet of the Project Boundary;
- Develop buffer zones around active nests as recommended by a qualified biologist. Construction activities shall be prohibited within the buffer zones until the young have fledged or the nest fails. Nests shall be monitored at least twice per week to determine nesting status.
- If construction activities stop for 15 days or longer, then another migratory bird and raptor survey shall be conducted within 7 days prior to the continuation of construction activities.

BIO-34: If removal of the existing Waldo Road Bridge will occur during the avian breeding season (March 1 – August 31), then exclusion and monitoring activities will be implemented to exclude all avian nests from the existing Waldo Road Bridge. Exclusion and monitoring activities include the following:

Exclusion

- All inactive avian nests should be removed from the bridge by a qualified biologist prior to March 1 to deter avian species from nesting on the bridge.
- If exclusionary devices are necessary to prevent avian species from nesting on the existing bridge, then exclusion devices shall be installed prior to March 1 under the supervision of a qualified biologist. Exclusionary devices are to be maintained and monitored by a qualified biologist until the removal of the existing bridge has been initiated.

An exclusion plan shall be created by a qualified biologist and a report sent to the County and CDFW for approval.

Monitoring

- Weekly or as necessary monitoring, or additional exclusion activities, will be conducted by a qualified biologist on the existing bridge after March 1 until all bridge removal activities are complete or the end of the avian breeding season (August 31).

BIO-35: Demolition activities and vegetation removal should begin prior to the maternity season or non-volant period (April 1 – August 31), when young bats are present but are unable to fly. If demolition does take place prior to the non-volant period, then a qualified biologist should be onsite during demolition activities to monitor for the presence of winter roosting bats.

BIO-36: If demolition activities and vegetation removal cannot begin prior to the non-volant period than exclusion and monitoring activities will be implemented prior to demolition activities Exclusion and monitoring activities will include the following.

Exclusion

- Exclusion devices will be installed prior to the non-volant period (April 1 – August 31). Exclusion devices shall be maintained throughout the duration of bridge removal activities and removed after construction activities are complete.
- An exclusion plan shall be created by a qualified biologist and a report sent to the County and CDFW for approval.

Monitoring

- Weekly or as necessary monitoring, or additional exclusion activities, will be conducted on the existing Waldo Road Bridge by a qualified biologist after excluding bats until bridge removal activities are complete or until the end of the non-volant period (August 31).

BIO-37: If bridge removal activities are conducted prior to the non-volant period and construction activities for the new bridge cannot begin prior to the non-volant period (April 1 – August 31), then a qualified biologist will conduct a pre-construction bat exit survey no more than seven days prior to the start of construction activities to determine if bats are utilizing Waldo Road Bridge. If bats are observed roosting within Waldo Road Bridge, then the following avoidance and minimization measures shall be implemented.

- Workers and vehicle disturbance shall not be allowed under the existing Waldo Road Bridge.
- Construction equipment shall not be parked under the Bridge.
- High beam lights shall not be used at any time under the existing bridge.

BIO-38: A pre-construction survey for roosting western red bats will be conducted by a qualified biologist within 7 days prior to the start of construction activities to determine presence or absence of roosting western red bats within the BSA.

BIO-39: If roosting western red bats are observed within the BSA, the County will be notified within 2 working days of the observation. Additional avoidance and minimization measures may be implemented under the guidance of the biologist.

BIO-40: All riparian trees that are to be removed for the construction of the roadway realignment and new bridge shall be mitigated for at a 3:1 ratio onsite. Should it be determined that onsite mitigation is infeasible, an offsite mitigation option or other approved methods would be considered during the permitting phase of the Project.

BIO-41: Mitigation for impacts to jurisdictional WOTUS will be addressed through the purchase of credits at a Corps-approved mitigation bank or payment to a Corps approved in-lieu fund as determined appropriate by the regulatory agencies.

BIO-42: It is recommended that general BMPs be implemented prior to and during construction activities, as recommended under the Cal-IPC's Preventing the Spread of Invasive Plants: Best Management Practices for Transportation and Utility Corridors (2012). The following are the recommended general BMPs under Cal-IPC:

- Schedule activities to minimize potential for introduction and spread of invasive plants.
- Designate specific areas for cleaning tools, vehicles, equipment, clothing and gear.
- Designate waste disposal areas for invasive plant materials and contain invasive plant material during transport.
- Plan travel routes to avoid areas infested with invasive plants.
- Clean tools, equipment, and vehicles before transporting materials and before entering and leaving worksites.
- Clean clothing, footwear, and gear before leaving infested areas.
- Prepare worksites to limit the introduction and spread of invasive plants.
- Minimize soil and vegetation disturbance.

3.4 CULTURAL RESOURCES

3.4.1 Regulatory Setting

Federal Laws and Requirements

National Historic Preservation Act Section 106

Section 106 of the National Historic Preservation Act 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, Tribal Historic Preservation Offices, Indian Tribes (to include Alaska Natives) [Tribes], and Native Hawaiian Organizations. As this Project will utilize federal funding provided by the Federal Highways Administration (FHWA), the Project constitutes and undertaking under Section 106 of the National Historic Preservation Act.

Caltrans and FHWA NEPA Assignment and Section 106 Programmatic Agreement

California participated in the "Surface Transportation Project Delivery Pilot Program" (Pilot Program) pursuant to 23 USC 327, for more than five years, beginning July 1, 2007, and ending September 30, 2012. MAP-21 (P.L. 112-141), signed by President Obama on July 6, 2012, amended 23 USC 327 to establish a permanent Surface Transportation Project Delivery Program. As a result, Caltrans entered into a Memorandum of Understanding pursuant to 23 USC 327 (NEPA Assignment MOU) with FHWA. The NEPA Assignment MOU became effective October 1, 2012 and was renewed on May 27, 2022, for a term of ten years. In summary, Caltrans continues to assume FHWA responsibilities under NEPA and other federal environmental laws in the same manner as was assigned under the Pilot Program, with minor changes. With NEPA Assignment, FHWA assigned, and Caltrans assumed all of the United States Department of Transportation (USDOT) Secretary's responsibilities under NEPA. This assignment includes projects on the State Highway System and Local Assistance Projects off the State Highway System within the State of California, except for certain categorical exclusions that FHWA assigned to Caltrans under the 23 USC 326 CE Assignment MOU, projects excluded by definition, and specific project exclusions.

The NEPA assignment also includes FHWA's Section 106 of the National Historic Preservation Act responsibilities. The 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) was executed which outlines an alternate procedure for how Caltrans complies with Section 106 of the National Historic Preservation. Pursuant to Stipulation X.C.1 of the Section 106 PA, Caltrans may make a finding of "Adverse Effect" when adverse effects cannot be avoided pursuant to Section 106 PA Stipulation X.B, or for any other reason, and consult with the State Historic Preservation Officer on the finding.

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 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; 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 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 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 California Register of Historical Resources (CCR 14 Section 4852[c]).

Discovery of Human Remains

Section 7050.5 of the California Health and Safety Code 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

Yuba County General Plan

The Yuba County General Plan Chapter 7 – Natural Resources Element, contains goals, objectives, and policies related to Cultural Resources.

- Goal NR6. Cultural Resources: *Identify, protect, and preserve Yuba County's important*

Indigenous and historic resources.

3.4.2 Environmental Setting and Existing Conditions

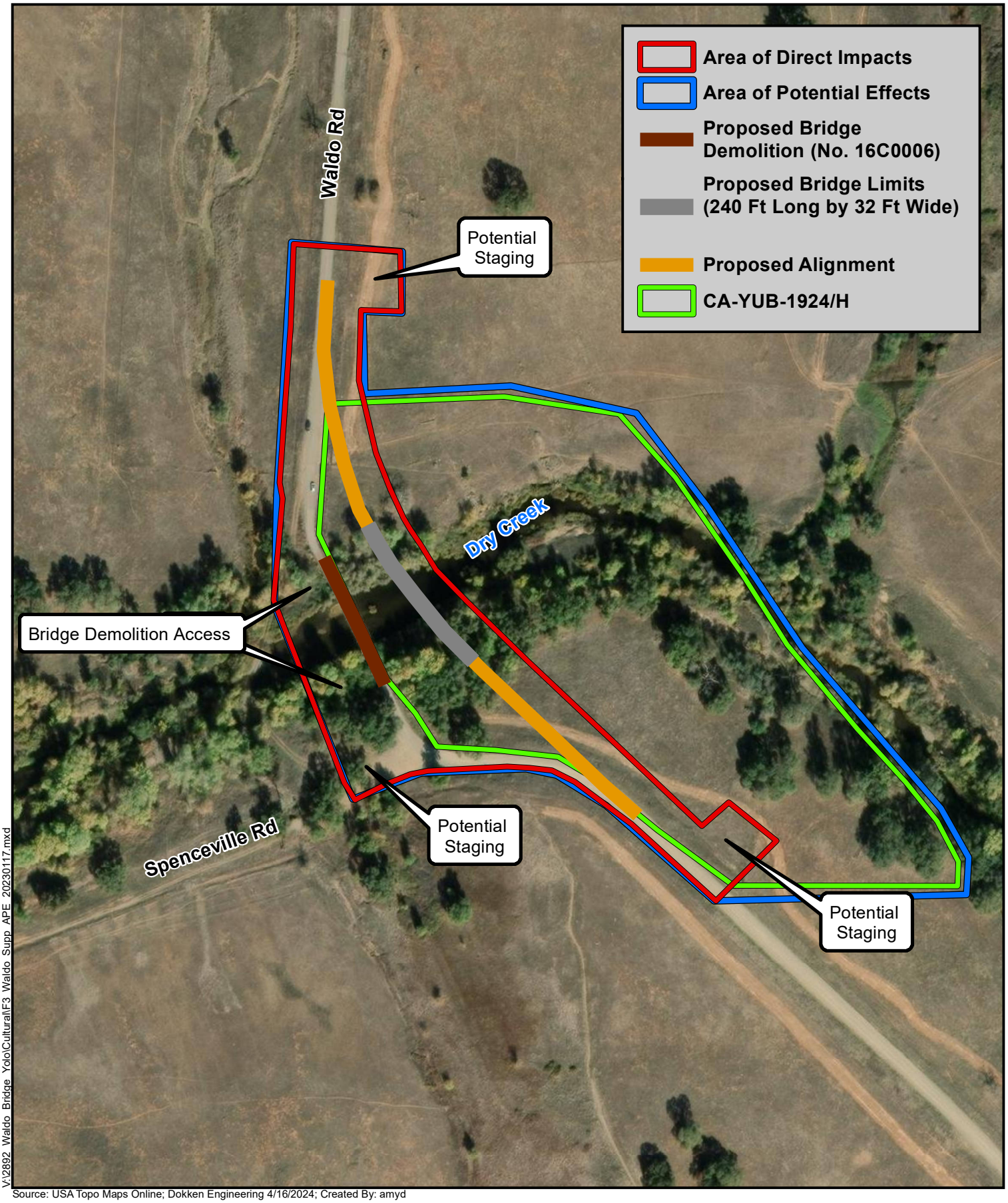
The Project area is located on the eastern side of the Sacramento River Valley, west of the Sierra Foothills in Yuba County. Elevation in the Area of Potential Effects (APE) ranges from 250 ft. to 272 ft. above mean sea level. This area is characterized by undulating hills interspersed with tributaries of the Yuba River. Dry Creek is one of these drainages and bisects the project area. The creek flows west through the historic period town of Spenceville, the APE and Beale Lake, and eventually empties into the Bear River in Rio Oso. Per Yuba County's General Plan Figure NR-6, Dry Creek is considered an area of high sensitivity for the presence of indigenous resources.

Cultural resources investigations for this Project occurred in 2012, 2013, and 2022 and included pedestrian surveys, Extended Phase I presence/absence subsurface testing, and Phase II evaluation testing. The APE for the Project was established in consultation with William Larson, Caltrans PQS Principal Investigator, Indigenous Archaeology, and Vlad Popko, District Local Assistance Engineer (**Figure 7**). The horizontal APE was established as the area of direct and indirect effects and consists of an approximately 14-acre area; however, the area of direct effects, which includes all staging areas, construction vehicular and equipment access, vegetation/tree removal, approach roadway realignment, bridge demolition, new bridge construction, water diversions, and grading activities required to remove the existing Waldo Road over Dry Creek Bridge (Bridge No. 16C0006) consists of an approximately 5.5-acre area. Potential staging areas are the existing roadway, the proposed new roadway alignment, and areas at the north and south ends of the project site east of the new roadway alignment.

The vertical APE consists of a maximum of 20 feet of depth from the existing ground surface to below ground surface (bgs) to accommodate earthwork for the construction of bridge abutments. 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.

Native American Outreach

A letter requesting a search of the Sacred Lands File and a list of Native American individuals and organizations that may have knowledge of, or concerns regarding, cultural resources in the Project area was sent to the Native American Heritage Commission. The search of the Sacred Lands File did not identify any known sacred lands or cultural resources in the "immediate project area".



V:\2892_Waldo_Bridge_Yolo\Cultural\F3_Waldo_Supp_APE_20230117.mxd

Source: USA Topo Maps Online; Dokken Engineering 4/16/2024; Created By: amyd

0 100 200 300 400 Feet

Figure 7
Area of Potential Effects
Waldo Road Bridge over Dry Creek Replacement Project
BRLO-5916(092)
Yuba County California

In 2012, project notification letters were sent to all potentially interested parties identified by the Native American Heritage Commission. An additional round of project notification letters were sent in 2017 notifying the recipients that archaeological excavations would occur within the APE. Letter recipients included the following:

- Colfax-Todds Valley Consolidated Tribe
- Enterprise Rancheria of Maidu Indians
- Mooretown Rancheria of Maidu Indians
- Strawberry Valley Rancheria
- Tsi-Akim Maidu
- United Auburn Indian Community

The Enterprise Rancheria of Maidu Indians responded to the 2021 outreach attempt and requested that a cultural monitor be present during any archaeological excavation. No response was received by the Enterprise Rancheria of Maidu Indians regarding the 2017 letter which communicated that archaeological excavations were going to occur.

One response was received by the United Auburn Indian Community (UAIC) in 2017 who requested a site visit. During the site visit, the UAIC requested that no destructive analyses, such as obsidian hydration, be conducted on Native American artifacts recovered during the archaeological excavation. The UAIC also requested that a UAIC monitor be present during all archaeological excavations and that all discovered artifacts and features be reburied rather than submitted to a curation facility for permanent curation. As requested, a UAIC monitor was present during archaeological excavations and no destructive testing, such as hydration analyses, was conducted. All collected artifacts were provided to the UAIC and are currently awaiting reburial pending the completion of construction activities and identification of a reburial location, to be determined in consultation with the County and the UAIC.

Project update letters were also sent in 2023 to inform the recipients that demolition of the existing bridge was included as a component of the Project and that additional survey of the demolition area would occur. The update letter also relayed the results of the previous archaeological investigations. The Mooretown Rancheria and the UAIC were the only respondents. The Mooretown Rancheria stated that they did not have any information regarding known resources to share but requested to be notified if new information becomes available or if late discoveries are identified.

The UAIC requested copies of all available cultural reports and a history of previous consultation. After review of the reports and consultation history, the UAIC noted that the Project would impact Tribal Cultural Resource (Cultural Site CA-YUB-1924/H). The UAIC provided recommendations regarding minimization measures and protocols to be implemented should Native American cultural resources be discovered during construction of the Project. Minimization measures and protocols included retaining a compensated Native American monitor to be present during ground disturbing activities; halting work within a 100-foot radius if Native American resources are discovered to assess significance and treatment by the UAIC; reburial of discovered artifacts within a location that will be protected from future ground disturbing activities; and compensation for all services provided by the UAIC. The County will continue coordinating with the UAIC to develop a TCR Protocol Plan (measure **TCR-2** in Chapter 3.13) which will be implemented during construction.

Historical Research

A search of survey reports, site records, historic maps and other pertinent data on file at the North Central Information Center within the APE and a quarter-mile search radius was conducted by a NCIC staff member on September 5, 2012. The search results indicated that one cultural resource

was located beyond the APE but within the search radius. The record search also identified Waldo Bridge, BR# 16C0006, as a recorded historic-era bridge that was also previously determined as eligible for listing on the National Register of Historic Places. Subsequent review of the bridge also determined it was eligible for listing on the California Register of Historical Resources. This qualifies the bridge as both a historic property, under Section 106 of the National Historic Preservation Act, and a historical resource, under CEQA.

Field Methods

Pedestrian surveys of the APE took place in 2012 and 2013 by Peak and Associates archaeological staff and Caltrans archaeological staff and again in 2022 by Dokken Engineering archaeological staff. During these surveys, both the ground surface and exposed subsurface cuts, such as the cut banks within Dry Creek, as well as roadway cuts, and animal burrows 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. Two cultural resources were identified: the existing historic-era Waldo Road Bridge and one cultural site, CA-YUB-1924/H, exhibiting use during both indigenous and historic occupation periods. A Phase II evaluation, which included both archaeological excavation, laboratory analyses, and research efforts, was conducted to determine whether the site was eligible for listing on the National Register of Historic Places and/or the California Register of Historical Resources. The results of the significance assessment for the cultural site and the Waldo Road Bridge are discussed below.

Identified Cultural Resources

As a result of background research, pedestrian field surveys, and archaeological excavations, two cultural resources were identified. Both are discussed below.

Waldo Road Bridge (Bridge No. 16C0006)

The APE contains a second historic property/historical resource, consisting of the existing Waldo Road Bridge. Caltrans evaluated the Waldo Road Bridge as part of its statewide historic truss bridge thematic study and determined it eligible for listing in the National Register of Historic Places, a finding that received concurrence from the State Historic Preservation Officer and the Keeper of the National Register in 1985. This determination was confirmed in the Caltrans historic bridge inventory update completed in 2004, which stated the bridge is significant under National Register of Historic Places Criterion C as a “major example of a significant builder/designer,” and that it retained sufficient historic integrity to remain eligible. Built in 1901 by the Dundon Bridge Company of San Francisco, the Waldo Road Bridge, also known as the Cabbage Patch Bridge, is the only remaining bridge in the state built by this pioneering steel truss fabrication firm. The bridge’s period of significance is 1901. The Waldo Road Bridge has a California Historical Resource Status Code of 2S – determined eligible for the National Register of Historic Places by the Keeper, and listed in the California Register of Historical Resources. As such, it is considered a historic property, as defined under Section 106 of the National Historic Preservation Act, and a historical resource, as defined under CEQA §15064.5.

Cultural Site CA-YUB-1924/H

This site included both indigenous-era and historic-era components. The indigenous component contained a sparse artifact assemblage with few functionally and temporally diagnostic materials. Two historic period assemblages were identified. One is associated with the Cabbage Patch townsite, which was located on level terrain both north and south of Dry Creek. Cabbage Patch included one of the earliest known African American settlements, which appears to have begun with a cabbage patch agricultural business. The area later grew to develop a small townsite during the California Gold Rush years with hotel, blacksmith shop, and other businesses and residences catering to several nearby large mining areas and ephemeral mining camps. None of these structures were identified within the APE. There may have also been placer mining in the immediate vicinity of the townsite, although no evidence of such activities were identified within the APE. The townsite also contained the Cabbage Patch cemetery, located beyond the APE. The second historic period assemblage appears associated with the development of a Sacramento spur of the Bay Counties Power Company pole line that was built from Colgate to Sacramento through Cabbage Patch between 1895 and 1901.

The excavations revealed that the portion of the site within the APE exhibits evidence of previous ground disturbance activities which have damaged and likely redeposited the assemblages from their original depositional locations. Based on the paucity of artifacts, seemingly redeposited surface materials, and lack of buried cultural material typical of human occupation, it is believed that the APE is located on the peripheral edge of an occupation area that extends beyond the APE onto private property. As the full boundary of the site cannot be determined, a complete and formal assessment of the site's significance cannot be completed at this time. However, as there appears to be data potential for both the historic and indigenous occupations of the site located beyond the APE which could inform research issues in site distribution and selection, technology, resource procurement/subsistence, site structure, and early townsite development, especially for African American townsites on which there is very little historical information, for the purpose of both CEQA and Section 106 of the National Historic Preservation analysis, the site is being assumed eligible for listing on both the National Register of Historic Places and the California Register of Historical Resources, for the purposes of this Project only, under the National Register of Historic Places criterion D and under the California Register of Historical Resources criterion 4. The cultural site also appears to possess associations with important events in our history, and as such, is also being assumed eligible under the under National Register of Historic Places criterion A and under the California Register of Historical Resources criterion 1. Any future projects which occur within the suspected boundary of the cultural site will be required to document whether additional artifacts and features are present, assess site's significance, and determine any potential impacts.

As the cultural site is being assumed eligible for both the National Register of Historic Places and the California Register of Historical Resources, for the purposes of this Project only, the site is considered a historic property, as defined under Section 106 of the National Historic Preservation Act, and a historical resource, as defined under CEQA §15064.5. As such, potential Project impacts to this historic property/historical resource must be assessed to determine if mitigation is required. Potential impacts are discussed below.

3.4.3 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?

3.4.4 Environmental Impacts

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

Waldo Road Bridge (Bridge No. 16C0006)

The Waldo Road Bridge, located within the APE, is a historic property, as defined under the National Historic Preservation Act, and a historical resource, as defined under CEQA §15064.5, as it is a "major example of a significant builder/designer" (National Register of Historic Places criterion C; California Register of Historical Resources criterion 3). The proposed Project would build a new bridge to meet current design standards located approximately 100 feet upstream from the existing bridge. After the replacement bridge has been constructed, the existing bridge would be demolished. Demolition of the existing Waldo Bridge which is a historic property/historical resource constitutes a significant effect under CEQA and an adverse effect under Section 106 of the National Historic Preservation Act because it entails the physical destruction of the entire resource. Therefore, the proposed replacement of the Waldo Road Bridge will result in a significant and unavoidable impact to the historic bridge.

An MOA, prepared by the County and approved by Caltrans and the SHPO, contains measures **CUL-1a** through **CUL-1c**, to reduce significant and unavoidable impacts. While measures **CUL-1a** through **CUL-1c** will reduce the Project's impact, it will not mitigate the impact to a less than significant level; therefore, impacts would remain **Significant and Unavoidable**.

Under the No-Build Alternative, construction activities would not occur and the Waldo Road Bridge would not be demolished. This would result in continued deterioration of the bridge which would likely result in a **Potentially Significant Impact**.

Cultural Site CA-YUB-1924/H

A multi-component indigenous and historic site lies partially within the APE. This resource was evaluated as part of this Project and determined eligible for inclusion in the National Register of Historic Places, under criteria A and D, and in the California Register of Historical Resources, under criteria 1 and 4, for the purposes of this Project only. The excavations revealed that the portion of the site within the APE exhibits evidence of previous ground disturbance activities which have damaged and likely redeposited the assemblages from their original depositional locations. Based on the paucity of artifacts, seemingly redeposited surface materials, and lack of buried cultural material typical of human occupation, it is believed that the APE is located on the peripheral edge of an occupation area that extends beyond the APE onto private property. For these reasons, the deposits present within the APE did not help to convey the site's historical significance and that Project activities within the APE would not alter the characteristics that may make the site historically significant under the National Register of Historic Places or California Register of Historical Resources criteria. Further, through implementation of an Archaeological Monitoring Area and Environmentally Sensitive Area Action Plan, the Project would protect deposits that exist beyond the APE that likely do convey the site's historical significance.

With implementation of **CUL-2a** through **CUL-2i** the Project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5. Impacts related to the Build Alternative would be **Less than Significant with Mitigation**. The No-Build alternative would result in **No Impact**.

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

Cultural Site CA-YUB-1924/H

A multi-component indigenous and historic site lies partially within the APE. This resource was evaluated as part of this Project and determined eligible for inclusion in the National Register of Historic Places, under criteria A and D, and in the California Register of Historical Resources, under criteria 1 and 4, for the purposes of this Project only. The excavations revealed that the portion of the site within the APE exhibits evidence of previous ground disturbance activities which have damaged and likely redeposited the assemblages from their original depositional locations. Based on the paucity of artifacts, seemingly redeposited surface materials, and lack of buried cultural material typical of human occupation, it is believed that the APE is located on the peripheral edge of an occupation area that extends beyond the APE onto private property. For these reasons, the deposits present within the APE did not help to convey the site's historical significance and that Project activities within the APE would not alter the characteristics that may make the site historically significant under the National Register of Historic Places or California Register of Historical Resources criteria. Further, through implementation of an Archaeological Monitoring Area and Environmentally Sensitive Area Action Plan, the Project would protect deposits that exist beyond the APE that likely do convey the site's historical significance.

With implementation of **CUL-2a** through **CUL-2i** the Project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5. Impacts related to the Build Alternative would be **Less than Significant with Mitigation**. The No-Build alternative would result in **No Impact**.

IMPACT CUL-3: 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. Implementation of measure **CUL-1c** would reduce this impact to a less-than significant level. Impacts related to the build alternative would be **Less than Significant with Mitigation**. The No-Build alternative would result in **No Impact**.

Alternatives Summary

Build Alternative

The Build Alternative would demolish the Waldo Road Bridge, which constitutes an adverse effect because it entails the physical destruction of the historic property. An MOA, prepared by the County and approved by Caltrans and the SHPO, contains measures **CUL-1a through CUL-1c**, to reduce significant and unavoidable impacts. While measures **CUL-1a through CUL-1c** will reduce the Project's impact, it will not mitigate the impact to a less than significant level; therefore, impacts would remain **Significant and Unavoidable**.

No-Build Alternative

Under the No-Build Alternative, construction activities would not occur and the Waldo Road Bridge would not be demolished; however, this would result in continued deterioration of the bridge which

may degrade the characteristics that convey its historical significance. As such, the No-Build Alternative would likely result in a **Potentially Significant Impact**.

3.4.5 Avoidance, Minimization, and/or Mitigation Measures

CUL-1: Per the proposed *Memorandum of Agreement Between the California Department of Transportation and the California State Historic Preservation Officer Regarding the Waldo Road over Dry Creek Bridge Replacement Project, Yuba County, California* (MOA), the following measures shall be implemented to resolve adverse effects to Waldo Road Bridge:

- **CUL-1a: Recordation.** Caltrans District 3 shall ensure that the County shall record and document the Waldo Road Bridge to the standards of the Historic American Engineering Record (HAER). This recordation and documentation will be conducted as follows:
  i. Prior to the commencement of construction activities for the project, the County shall contact the regional Historic American Building Survey/Historic American Engineering Record/Historic American Landscape Survey (HABS/HAER/HALS) coordinator at the National Park Service Interior Regions 8, 9, 10, and 12 Regional Office (NPS) to request that NPS stipulate the level of and procedures for completing the documentation. Within ten (10) calendar days of receiving the NPS stipulation letter, the County shall send a copy of the letter to all parties to this MOA for their information. If no response is received within ninety (90) calendar days of submittal to NPS, Caltrans shall confer with SHPO on how to move forward with HAER documentation.
  ii. The County shall ensure that all recordation documentation activities are performed or directly supervised by architects, architectural historians, photographers, and/or other professionals meeting the qualification standards in the Secretary of Interior's Professional Qualification Standards (36 CFR 61, Appendix A).
  iii. The County shall prepare HAER documentation for the Waldo Bridge as per the NPS stipulation letter, or as directed by Caltrans.
    a. Caltrans shall have thirty (30) calendar days to review and comment on the draft HAER documentation.
    b. The County shall revise the draft HAER in response to Caltrans comments and submit draft HAER documentation to NPS.
    c. The County shall prepare the final HAER documentation in response to NPS comments and directions. The County shall send final archival HAER documentation to NPS.
  iv. Upon receipt of the NPS written acceptance letter, the County shall make archival, digital, and/or bound copies of the documentation and provide them to the Caltrans Library and History Center, Sacramento; the California Office of Historic Preservation; and the Caltrans Cultural Studies Office. Additional copies will be offered to the Wheatland Historical Society in Wheatland, Mary Aaron Museum in Marysville, California Historical Society, California Preservation Foundation, and North Central Information Center of the California Historical Resources Information Center.
  v. Caltrans shall notify SHPO that the documentation is complete and all copies are distributed as outlined in MOA Stipulation II.A.4. Completion of the documentation shall be included in the annual report outlined in MOA Stipulation IV.G. All documentation shall be completed prior to the commencement of the project's construction activities.
- **CUL-1b: Interpretation.**

i. Caltrans District 3 shall ensure that the County will design, produce, and install a permanent metal plaque on a concrete mount no later than one year following completion of construction. The plaque will provide a brief history of the historic Waldo Road Bridge, a physical description of the structure and its engineering features, and its significance. The plaque will be installed at a publicly accessible site in close, visual proximity to the Waldo Road Bridge crossing, within County right-of-way so that it can be visible to those traveling through the area and utilizing the Spenceville Wildlife Area.
    a. Caltrans shall have thirty (30) calendar days to review and comment on the design and text of the new plaque before it is produced and installed. If revisions are needed, the County will resubmit the design to Caltrans District 3 for review and approval.
    b. Following approval by Caltrans District 3, Caltrans District 3 shall submit the draft copy of the plaque design and text to the MOA signatories. The signatories will have thirty (30) calendar days to review and comment on the design. Caltrans District 3 will take any comments into account in revising the draft plaque and provide the MOA parties with written documentation indicating whether and how the design will be modified in accordance with any comments received. Objections will be resolved using the process outlined in MOA Stipulation IV.C.
    c. Caltrans District 3 will inform the SHPO within 90 days following the installation of the plaque, and completion of this treatment measure will be documented in the annual report outlined MOA Stipulation IV.C.

ii. Caltrans District 3 shall ensure that the County will prepare and produce a booklet discussing the construction and engineering of the Waldo Road Bridge and its use within the context of Yuba County history. The booklet shall be prepared within one year following completion of recordation under MOA Stipulation II.A. It shall be paperback, not to exceed 10 pages, and shall include high quality black and white images of the Waldo Road Bridge, copies of historic photographs and/or drawings, as appropriate, and text describing the Waldo Road Bridge, its design, construction, and use. Data for the booklet will be based on the HAER prepared under MOA Stipulation II.A and other relevant historical reports or documentary sources.
    a. The County shall submit a draft copy to Caltrans District 3 prior to making the booklet available to recipients. Caltrans District 3 will have thirty (30) calendar days to review and comment on the booklet. If revisions are needed, the County will resubmit the booklet to Caltrans District 3 for review and approval.
    b. Following approval by Caltrans District 3, Caltrans shall submit the draft copy of the booklet to the MOA signatories. The signatories will have thirty (30) calendar days to review and comment on the booklet. Caltrans District 3 will take any comments into account in revising the draft booklet and provide the MOA parties with written documentation indicating whether and how the booklet will be modified in accordance with any comments received.
    c. Following the comment period for the MOA signatories, the County shall produce hardcopies and a print-on-demand electronic version for distribution to local repositories, including, but not necessarily limited to, the Wheatland Historical Society in Wheatland, Mary Aaron Museum in Marysville, and Yuba County Public Library. One copy shall be submitted to Caltrans District 3 and the Caltrans Transportation Library and History

Center in Sacramento, and electronic versions shall be submitted to the MOA signatories.

d. The County shall maintain the high-resolution print-ready electronic version of the booklet for up to five years and produce additional copies within that time frame if there is demand.
e. Caltrans District 3 will inform the MOA signatories within 90 days following the completion of this treatment measure, and completion of this treatment measure will be documented in the annual report outlined in MOA Stipulation IV.G.

- **CUL-1c: Discoveries and Unanticipated Effects.**
  i. As legally mandated, human remains and related items discovered during the implementation of the terms of this Agreement and the Undertaking will be treated in accordance with the requirements of Health and Safety Code Section 7050.5(b). If pursuant to of Health and Safety Code Section 7050.5(c) the coroner determines that the human remains are or may be those of a Native American, then the discovery shall be treated in accordance with the provisions of Public Resources Code Sections 5097.98 (a)- (d). Caltrans shall ensure, to the extent possible, that the views of the Most Likely Descendent(s), as determined by the California Native American Heritage Commission, are taken into consideration when decisions are made about the disposition of Native American human remains and associated objects.
  ii. If Caltrans determines, during implementation of the terms of this MOA or after construction of the Undertaking has commenced, that the Undertaking will affect a previously unidentified property that may be eligible for listing in the NRHP or affect a known historic property in an unanticipated manner, Caltrans will address the discovery or unanticipated effect in accordance with 36 CFR §800.13(b)(3). Caltrans at its discretion may hereunder assume any discovered property to be eligible for the NRHP in accordance with 36 CFR §800.13.

CUL-2: Per the proposed *Archaeological Monitoring Area and Environmentally Sensitive Area Action Plan for the Waldo Road over Dry Creek Bridge Replacement Project, Yuba County, California*, the following measures shall be implemented as part of the Finding of No Adverse Effect to protect sensitive areas within the boundary of CA-YUB-1924/H and to monitor ground disturbing activity within the APE:

- **CUL-2a:** The ESA and AMA are clearly described and illustrated on the final construction design, plans, and specifications used by construction personnel.
- **CUL-2b:** All responsible parties, including the Caltrans Project Archaeologist, will review the plans, specifications, and estimates, and ensure that the SSP's for the ESA and AMA are included and that the ESA and AMA are clearly defined and illustrated.
- **CUL-2c:** The ESA and AMA will be discussed during the preconstruction meeting and ESA and AMA restrictions and historic preservation laws are disseminated in writing to construction and field personnel. The importance of the ESA will be discussed with construction personnel and it will be stressed that no construction activity (including the storing or staging of materials and equipment) should occur within the ESA and that workers must remain outside of the ESA at all times. The importance of the AMA will also be discussed and that no ground disturbing work can be done within the AMA without the archaeological monitor and Native American monitor present.

- **CUL-2d:** The Resident Project Engineer will notify the Project Archaeologist at least three weeks in advance of construction to ensure that an archaeologist will be available to monitor fence installation and allow for field review of the ESA locations.
- **CUL-2e:** The Contractor will install temporary plastic “ESA” fencing along the ESA. The fencing will be installed at least one week prior to initiating any work. An archaeologist qualified under the PA will supervise and monitor fence installation.
- **CUL-2f:** The Caltrans Project Archaeologist will be notified when construction begins. The ESA and ESA fencing will be inspected weekly by an archaeologist qualified under the PA to ensure the integrity of the ESA is maintained. All ground disturbing work within the AMA will be monitored by an archaeologist qualified under the PA and a NA monitor.
- **CUL-2g:** The State Historic Preservation Officer and the Caltrans Cultural Studies Office will be notified within 48 hours of any ESA breach and consult immediately to determine how the breach will be addressed. Representatives of local Native American groups will also be consulted.
- **CUL-2h:** Caltrans Project Archaeologist will be informed when construction is finished.
- **CUL-2i:** The Contractor, under supervisions of an archaeologist qualified under the Caltrans Section 106 PA, will remove temporary “ESA” fencing at the conclusion of construction.

3.5 ENERGY

3.5.1 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.

3.5.2 Environmental Setting and Existing Conditions

The Project area is designated as Natural Resources within the Yuba County General Plan and is located within Spenceville Wildlife Area, a 11,900-acre wildlife preserve and public outdoor recreation area administered by the CDFW.

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 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 in 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 activities 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.

3.5.3 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?

3.5.4 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?

The proposed Project would replace the existing bridge for safety purposes and would not consume any additional energy resources during operation other than what is currently being consumed. During construction, the Project would comply with **AQ-1** to ensure that wasteful, inefficient, or unnecessary consumption of energy resources does not occur. Impacts related to the Project 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 will not conflict with or obstruct any state or local plans for renewable energy or energy efficiency. Therefore, there would be **No Impact**. The No-Build alternative would also result in **No Impact**.

Alternatives Summary

Build Alternative

The proposed Project would replace the existing bridge for safety purposes and would not consume any additional energy resources during operation other than what is currently being consumed. During construction, measure **AQ-1** will be implemented to reduce impacts to less than significant levels.

No-Build Alternative

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

3.5.5 Avoidance, Minimization, and/or Mitigation Measures

See Chapter 3.2 Air Quality for measure **AQ-1**.

3.6 GEOLOGY/SOILS

3.6.1 Regulatory Setting

Federal Laws and Requirements

For geologic and topographic features, the key federal law is the Historic Sites Act of 1935, which establishes a national registry of natural landmarks and protects "outstanding examples of major geological features." Topographic and geologic features are also protected under CEQA.

Earthquake Hazards Reduction Act of 1977

The U.S. Congress passed the Earthquake Hazards Reduction Act in 1977 to "reduce the risks to life and property from future earthquakes in the United States" through the establishment and maintenance of an effective earthquake hazards and reduction program (Federal Emergency Management Agency (FEMA) 1977). To accomplish this, the act established the National Earthquake Hazards Reduction Program (NEHRP). This program was significantly amended in 1990 with the National Earthquake Hazards Reduction Program Act (NEHRPA), which refined the descriptions of agency responsibilities, program goals, and objectives. The NEHRP's mission is to:

- Improve understanding, characterization, and prediction of earthquake hazards and vulnerabilities;
- Improve building codes and land use practices;
- Reduce risks through post-earthquake investigations and education;
- Develop and improve design and construction techniques; improve mitigation capacity; and
- Accelerate the application of research results.

The NEHRPA designates FEMA as the program's lead agency and assigns several planning, coordinating, and reporting responsibilities. Other NEHRPA agencies are the National Institute of Standards and Technology, the National Science Foundation, and the USGS.

Clean Water Act

The Clean Water Act (CWA) regulates discharges into waters of the United States, including a range of potential point and nonpoint sources of water-transported pollutants, and the discharge of fill into waters, such as wetlands and intermittent stream channels. The purpose of the CWA is to restore and maintain the chemical, physical, and biological integrity of the nation's waters through prevention and elimination of pollution.

The law requires that a CWA Section 404 permit be obtained from the United States Corps for any dredged or fill materials discharged into wetlands or waters of the United States whether the discharge is temporary or permanent. A NPDES permit is required through the appropriate RWQCB.

CWA Section 401 requires that water quality certifications or waivers be issued by the United States EPA, the states, or both (see below). Projects must be consistent with the State Non-point Source Pollution Management Program (CWA Section 319). Projects effecting waterbodies identified as impaired would also need to comply with Section 303(d) of the CWA. Waterbodies subject to Section 303(d) of the CWA are discussed further in Section 4.9 of this EIR, "Hydrology and Water Quality."

- CWA Section 402 mandates that certain types of construction activity comply with the requirements of Environmental Protection Agency's NPDES stormwater program.

Construction activities that disturb one or more acres of land must obtain coverage under the NPDES general construction activity stormwater permit, which is issued by the RWQCB. Obtaining coverage under the NPDES general construction activity stormwater permit generally requires that the project applicant complete the following steps: File a Notice of Intent with RWQCB that describes the proposed construction activity before construction begins;

- Prepare a Storm Water Pollution Prevention Plan (SWPPP) that describes BMPs that would be implemented to control accelerated erosion, sedimentation, and other pollutants during and after project construction; and
- File a notice of termination with RWQCB when construction is complete and the construction area has been permanently stabilized.

The State Water Resources Control Board (SWRCB) adopted Order WQ 2022-0057-DWQ for a new statewide NPDES Construction General Permit # CAS000002 on September 8, 2022 that took effect on September 1, 2023 (SWRCB 2023). This General Permit imposes more minimum BMPs and establishes three levels of risk-based requirements based on both sediment risk and receiving water risk. All dischargers are subject to narrative effluent limitations. Risk level 2 dischargers are subject to technology-based numeric action levels for pH and turbidity. Risk level 3 dischargers are subject to NALs and numeric effluent limitations. Certain sites must develop and implement a SWPPP and Rain Event Action Plan and all projects must perform effluent monitoring and reporting, along with receiving water monitoring and reporting. The General Permit requires that key personnel (e.g., SWPPP preparers, inspectors, etc.) have specific training or certifications to ensure their level of knowledge and skills are adequate to ensure their ability to design and evaluate project specifications that will comply with General Permit requirements. Projects must electronically submit Permit Registration Documents prior to commencement of construction activities including the Notice of Intent, Risk Assessment, Post-Construction Calculations, a Site Map, the SWPPP, a signed certification statement by the Legally Responsible Person, and the first annual fee.

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

The Seismic Hazards Mapping Act was passed by the California Legislature after the 1989 Loma Prieta earthquake. The Act directs CGS to identify and map areas prone to earthquake hazards

of liquefaction, earthquake-induced landslides, and amplified ground shaking. The purpose of the act is to reduce threats to public safety and to minimize loss of life and property by identifying and mitigating these seismic hazards. There are no Zones of Required Investigation in Yuba County (CGS 2009).

2013 California Building Standards Code

The State's minimum standards for structural design and construction are given in the California Building Standards Code (CBSC) (24 CCR). The CBSC is based on the International Building Code, which is used widely throughout United States (generally adopted on a state-by-state or district-by-district basis) and has been modified for California conditions with numerous, more detailed or more stringent regulations. The CBSC requires that "classification of the soil at each building site will be determined when required by the building official" and that "the classification will be based on observation and any necessary test of the materials disclosed by borings or excavations." In addition, the CBSC states that "the soil classification and design-bearing capacity will be shown on the (building) plans, unless the foundation conforms to specified requirements." The CBSC provides standards for various aspects of construction, including excavation, grading, and earthwork construction; fills and embankments; expansive soils; foundation investigations; and liquefaction potential and soil strength loss. In accordance with California law, certain aspects of the Project would be required to comply with all provisions of the CBSC.

Porter-Cologne Act

The RWQCB regulates State water quality standards in Yuba County. Water quality standards are relevant to this section, as well as the Hydrology and Water Quality section of this EIR since they are related to fill, grading, and sediment discharge.

Beneficial uses and water quality objectives for surface water and groundwater resources in the area are established in the water quality control plans (basin plans) of each RWQCB, as mandated by the State Porter Cologne Act and the CWA. The RWQCBs also implement CWA Section 303(d) total maximum daily load (TMDL) process, which consists of identifying candidate water bodies where water quality is impaired by the presence of pollutants. The TMDL process is implemented to determine the assimilative capacity of the water body for the pollutants of concern and to establish equitable allocation of allowable pollutant loading within the watershed. Section 401 of the CWA requires an applicant pursuing a federal permit to conduct any activity that may result in a discharge of a pollutant to obtain a water quality certification (or waiver) from the applicable RWQCB. The RWQCBs primarily implement basin plan policies through issuing waste discharge requirements for waste discharges to land and water. The RWQCBs are also responsible for administering the NPDES permit program, which is designed to manage and monitor point and nonpoint source pollution. NPDES stormwater permits for general construction activity are required for projects that disturb one or more acres of land.

Phase II municipal NPDES stormwater permits are required for "Urbanized Area" which is a population of 50,000 and a density of 1,000/sq mile. Yuba County must comply with the provisions of the permit by ensuring that, among other things, new development and redevelopment projects mitigate, to the maximum extent practicable, water quality impacts to stormwater runoff during the project's construction and operational periods.

As described above, the SWRCB adopted a new statewide NPDES Construction General Permit Order WQ 2022-0057-DWQ on September 8, 2022 that became effective September 1, 2023. This General Permit imposes more minimum BMPs and establishes three levels of risk-based requirements based on both sediment risk and receiving water risk.

Local Laws and Requirements

Yuba County Code

Yuba County is responsible for implementation of state and federally mandated laws and regulations related to geology and soils before permitting projects under the County's jurisdiction. Several portions of the Yuba County Ordinance Code relate to geology, soils, and other geologic hazards. Chapter 11.25 of the County Code apply to erosion control.

Chapter 11.25, Yuba County Ordinance Code— Grading, Drainage, and Erosion Control

Chapter 11.25 of the Yuba County Code provides regulations related to grading and excavations. The chapter sets forth means for controlling soil erosion and problems associated with grading, drainage, and other earthwork activities. The provisions provided in this chapter apply to the unincorporated areas of Yuba County.

Yuba County General Plan

The Yuba County General Plan Chapter 6 – Public Health & Safety Element, contains goals, objectives, and policies related to Geology/ Soils. The following goals are applicable to Geology/ Soils:

- Goal HS8. Geology and Soils: *Reduce risk to people and property from geologic hazards and soil limitations*.

3.6.2 Environmental Setting and Existing Conditions

The Project is located in the foothills of the Sierra Nevada's. According to the Geologic Map of the Chico Quadrangle, California (California Geological Society, 1992, 1:250,000 scale), the area containing the Project site is generally underlain by Jurassic volcanic rocks. Yuba County is located within an area of California with relatively low seismic activity and is not located within a highly active fault zone. No Alquist-Priolo Earthquake Fault Zones are located in Yuba County.

According to the Yuba County General Plan EIR, soils within the Project area and vicinity consist of Sobrante-Auburn. These soils are moderately deep or shallow and well-drained. They formed in material weathered from basic metavolcanic rocks, found on foothills. The unit is used for livestock grazing, woodland, and homesites. It is limited by a restricted soil depth, slope, and the hazard of water erosion. Additionally, the Project area has a slight soil erosion hazard and low shrink-swell potential.

3.6.3 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?

3.6.4 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;

Yuba County 2030 General Plan describes the potential for seismic activity potential within Yuba County as being relatively low and it is not located within a highly active fault zone. No Alquist-Priolo Earthquake Fault Zones are located within the County. The faults that are located within Yuba County are primarily inactive and consist of the Foothills Fault System, running south-southeastward near Loma Rica, Browns Valley and Smartsville. Faults within the Foothill Fault System include Prairie Creek Fault Zone, the Spenceville Fault, and the Swain Ravine Fault. The proposed Project would result in **No Impact**. The No-Build alternative would also result in **No Impact**.

(ii) Strong seismic ground shaking;

Within Yuba County, the Swain Ravine Lineament of the Foothills Fault system is considered a continuation of the Cleveland Hill Fault, the source of the 1975 Oroville earthquake. The Foothill Fault System has not yet been classified as active, and special seismic zoning was determined not to be necessary by the California Division of Mines and Geology. While special seismic zoning was not determined to be necessary, the Foothill Fault system is considered capable of seismic activity. In addition, the County may experience ground shaking from faults outside the County. The bridge replacement will be constructed to meet all applicable State of California seismic building codes and design as applicable to the Project. The proposed Project would result in **Less Than Significant Impact**. The No-Build alternative would result in **No Impact**.

(iii) Seismic-related ground failure, including liquefaction;

According to the Department of Conservation's Geologic Hazards map, the Project area is not within a liquefaction zone. The Project would result in **No Impact**. The No-Build alternative would also result in **No Impact**.

(iv) Landslides?

Landslides are most likely to form when the ground is sloped. The Project site has flat topography and no steep slopes (defined as slopes exceeding 60 percent grade). The proposed Project 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?

As part of the construction process, projects are required to submit plans for the disposition of surface runoff and erosion control to the County's Public Works Department. In addition, the FRAQMD has standard measures, **AQ-1** and **AQ-2**, that address earth-disturbing activities, discussed further in Chapter 3.2. The proposed Project would have a **Less than Significant Impact**. 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?

The proposed Project would not be subject to significant hazards associated with landslides, lateral spreading, liquefaction, or collapse. Activities that would cause subsidence include groundwater pumping and natural gas extraction. There are a number of wells in the Project vicinity that are used to supply water for agricultural and residential uses. These wells will continue to be used in the future. However, the Project would not result in an increased demand for water. Water usage associated with the proposed Project would not significantly draw down aquifers in the area to a level that would cause subsidence. The proposed Project would result in **No Impact**. The No-Build alternative would also 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?

The General Plan EIR designates the Project area as having a low potential for containing expansive soils. Additionally, the Project will be required to meet all applicable State of California building code requirements. The proposed Project would result in **No Impact**. The No-Build alternative would also 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 does not propose any residential uses and would not generate any wastewater. No septic systems are proposed. Therefore, the proposed Project 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?

According to the Yuba County General Plan EIR, there are no recorded vertebrate fossil sites within Yuba County. Therefore, the proposed Project would result in **No Impact**. The No-Build alternative would also result in **No Impact**.

Alternatives Summary

Build Alternative

Geological and soil impacts are not anticipated to be significant as a result of the Build Alternative. To reduce the potential for erosion, the proposed Project will be designed with erosion control measures. With the mitigation measure and standard erosion control practices, impacts would be reduced to less than significant levels.

No-Build Alternative

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

3.6.5 Avoidance, Minimization, and/or Mitigation Measures

See Chapter 3.2 Air Quality for a complete list of measures.

3.7 GREENHOUSE GAS EMISSIONS

3.7.1 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, 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 CO_2, CH_4, 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 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 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

Feather River Air Quality Management District

In 1998, FRAQMD published the Indirect Source Review Guidelines, A Technical guide to assess the Air Quality Impact of Land Use Projects Under the California Environmental Quality Act (FRAQMD 1998). In 2010, the FRAQMD updated the 1998 guidelines.

FRAQMD has provided the CEQA planning guidance online (FRAQMD 2010) to assist with identification of significant adverse air quality impacts and suggest measures that will reduce potential project emissions early in the planning process. Because stationary sources like industrial facilities are largely regulated, the guidelines focus on transportation and land use control measures to reduce emissions to achieve and maintain federal and state health-based air quality standards. Many projects, particularly those prosing new stationary sources, are subject to FRAQMD rules and regulations in effect at the time of construction.

Yuba County General Plan

The Yuba County General Plan Chapter 6 – Public Health & Safety Element, contains goals, objectives, and policies related to greenhouse gas emissions. The following goals are applicable to greenhouse gas emissions:

- Goal HS5. Greenhouse Gas Emissions & Climate Change: *Provide greenhouse gas-efficient development patterns and successfully adapt to future changes in Yuba County's climate.*

3.7.2 Environmental Setting and Existing Conditions

Waldo Road is a generally north/south road and the bridge crosses Dry Creek on a generally north/south alignment. Waldo Road and connecting roads Spenceville Road and Camp Far West Road, are all lightly traveled routes passing through rolling Sierra foothills terrain. The Project would build a new bridge over the Dry Creek that eliminates the one-lane bridge that currently causes vehicles to idle while waiting for other travelers to cross the bridge.

3.7.3 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?

3.7.4 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, NOX, VOCs, directly emitted PM10 and PM2.5, 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. FRAQMD has not yet established GHG emission thresholds.

The RCEM model was calculated with the Project's construction anticipated to take approximately 6 months. It was determined that the total amount of emissions generated by construction of the Project is 427 MT CO2e (Appendix C). However, work would be short-term in duration and is not anticipated to result in significant adverse construction GHG emissions. Impacts will be less than significant.

Table 9: Construction GHG Emissions

	Maximum Project Construction Emissions (Metric Tons of Carbon Dioxide Equivalent per year)	**FRAQMD Construction Emissions Threshold**
	Build Alternative	
Greenhouse Gas	427 MT CO2e/yr	Not yet established
Source: Road Construction Emissions Model, Version 9.0.1 & FRAQMD Indirect Source Review Guidelines, 2010		

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. As the Project intends to replace the existing one-lane bridge with a two-lane bridge, operational GHG emissions are anticipated to remain the same. Therefore, the completed Project operation would have no impact relating to GHG emissions. Overall, GHG Impacts related to the Project 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?

Yuba County is currently preparing a Resource Efficiency Plan that will address Greenhouse Gas emissions; however, there is not a plan in place at this time. The Project is consistent with the Air Quality & Climate Change policies within the Public Health & Safety Section of the 2030 General Plan therefore, the project does not conflict with any applicable plan, policy or regulation. Therefore, the Project would result in **No Impact**. The No-Build alternative would result in **No Impact**.

Alternatives Summary

Build Alternative

GHG impacts are anticipated to be less than significant as a result of the Build Alternative. There will be a temporary increase in GHG emissions during construction, but they will be intermittent and limited.

No-Build Alternative

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

3.7.5 Avoidance, Minimization, and/or Mitigation Measures

No Avoidance, Minimization, and/or Mitigation Measures are required.

3.8 HAZARDS & HAZARDOUS MATERIALS

3.8.1 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.

Federal Aviation Regulations Part 77

Federal Aviation Regulations (FAR) Title 14, Part 77, establishes standards and notification requirements for objects affecting navigable airspace associated with construction on or near airports. Notification serves as the basis for:

- Evaluating the effect of the construction or alteration on operating procedures,
- Determining the potential hazardous effect of the proposed construction on air navigation,
- Identifying mitigating measures to enhance safe air navigation, and
- Charting of new objects.

Notification allows Federal Aviation Administration (FAA) to identify potential aeronautical hazards in advance, thus preventing or minimizing the adverse impacts on the safe and efficient use of navigable airspace. Any person or organization who intends to sponsor any of the following construction or alterations must notify FAA:

- Any construction or alteration exceeding 200 feet above ground level.
- Any construction or alteration:
    - Within 20,000 feet of a public-use or military airport that exceeds a 100:1 surface from any point on the runway of each airport, with at least one runway more than 3,200 feet;
    - Within 10,000 feet of a public-use or military airport that exceeds a 50:1 surface from any point on the runway of each airport, with its longest runway no more than 3,200 feet; or
    - Within 5,000 feet of a public-use heliport that exceeds a 25:1 surface.
- Any highway, railroad, or other traverse way who's prescribed adjusted height would exceed that above noted standards.
- When requested by FAA.
- Any construction or alteration located on a public-use airport or heliport, regardless of height or location.

State Laws and Requirements

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 EPA has been granted primary responsibility by EPA for administering and enforcing hazardous materials management plans within California. California 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 (FHSZ) 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.

Yuba County General Plan

The Yuba County General Plan Chapter 6 – Public Health and Safety Element contains goals, objectives, and policies related to Hazards and Hazardous Materials. The following goals are applicable to Hazards and Hazardous Materials:

- Goal HS7. Hazards and Hazardous Materials: *Protect the community from the harmful effects of hazards and hazardous materials.*

3.8.2 Environmental Setting and Existing Conditions

NV5 completed two Hazardous Waste Initial Site Assessments (ISAs) of the Project area and presented findings in separate reports dated April 23, 2013 and November 17, 2019. Due to updates to the Project, an updated ISA was prepared on July 24, 2023.

The previous ISAs found that the Project area was formerly part of artillery and small arms ranges associated with Camp Beale Army Base. Camp Beale opened in 1942 and established a Chemical Warfare School in 1943. In 1952, the construction of rifle, mortar, demolition and machine gun ranges was completed, and these facilities were used through 1964. The history of the facilities, types of ordinance and explosive equipment and chemical warfare activities and the potential locations of Camp Beale were researched by accessing information available on the internet. Due to the unknown nature of the types and frequency of Camp Beale's use of the Project area, this was considered a recognized environmental condition (REC).

On May 25, 2023, NV5 performed a site visit to observe field conditions that may indicate RECs in connection with the subject property. At the time of the site visit the following observations were noted:

- Site conditions appeared similar to conditions during the previous visit in May 2019.
- No evidence of storage, use or releases of hazardous materials was observed.
- No significant changes to land use on adjacent properties were noted.

NV5's professional opinion based on the findings of the ISA are presented below:

- No RECs associated with the subject property were identified beyond those previously reported in the original ISAs (NV5, 2013 and 2019) (discussed above).
- Unexploded ordinance remains a REC for the subject property.
- The nearby cases listed in the Environmental Data Resources, Inc (EDR) report are not likely to have impacted environmental conditions at the subject property.

3.8.3 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?

3.8.4 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 construction activities, the Project would involve use of heavy equipment for 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.

NV5 also completed a Preliminary Site Investigation (PSI) (NV5, August 7, 2019) to address concerns related to aerially deposited lead along the roadway, lead containing paint, and asbestos containing construction materials, which could be disposed of during construction activity. The findings of the PSI are summarized below:

- Based on the findings of the laboratory analysis, lead in soil within the Project area are considered nonhazardous waste as determined by CCR Title 22, §66261.24, thus special waste handling is not required.
- The presence of lead in soil within the Project area and paint on the bridge indicate that the requirements of Construction Safety Orders, Section (§) 1532.1 Lead, are applicable to work performed within the Project limits but a pre-work notification is not required. In addition, Caltrans Special Provision 7-1.02K(6)(j)(iii) is applicable to address safety measures associated with handling of lead containing earth materials.
- The written 10-day notification to CARB is not required to be submitted prior to starting work because none of the materials sampled contained asbestos. However, if more than 160 square feet, 260 linear feet or 35 cubic feet of regulated asbestos containing material is discovered and planned for removal on the Project, formal written notification to the CARB is required.
- Cal/OSHA Construction Safety Orders, §1529 Asbestos do not apply at Bridge 16C0006 because none of the materials sampled contain asbestos. However, if regulated asbestos containing material is discovered during site work and planned for disturbance at the bridge site then §1529 is applicable.

The use and disposal 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. With implementation of measures **HAZ-1** through **HAZ-3**, impacts related to the proposed Project 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 contaminates or accident conditions involving the release of hazardous materials into the environment, as well as upset or accident relating to machinery. According to the Envirostor database, Camp Beale encompassed the BAFB and approximately 60,000 acres east of the base, including the Spenceville Wildlife Management Area and the Project area. In March 2003, the Corps performed an Engineering Evaluation and Cost Analysis and recommended a Removal Action for two areas identified to pose the highest risk due to the presence of unexploded ordinances. During a site inspection completed by the Corps in 2005 and 2006, several additional areas (approximately one-third of the former Camp Beale area) were identified as Munition and Explosive of Concern (MEC) items. These areas (identified as Munitions Response Site [MRS] 03 Combined Use Area) required further investigation through a Remedial Investigation/Feasibility Study (RI/FS).

Based on review of recent information presented in the remedial investigation report on Envirostor, accessed on May 23, 2023, the Department of Defense conducted a remedial investigation of the MRS 03 Combined Use Area and determined two sub areas should undergo remediation. A site map of the MRS 03 boundary depicts the subject property north and outside of the MRS 03 investigative boundary. However, other maps presented in the remedial investigation report indicate the subject property is overlain by several munitions use areas utilized by Camp Beale. Review of the Quality Assurance Project Plan RI/FS for MRS 01 and MRS02 shows the subject property is mapped within the boundary of MRS 02 which is adjacent and north of MRS 03. Thus, unexploded ordinance could exist within the Project boundary and remains a REC. Although the Project area has not been previously identified as containing MEC,

it was part of former Camp Beale and the possibility that MEC may be encountered during construction cannot be ruled out. The ISA recommends that monitoring for MEC is recommended during grading and/or excavation performed for the bridge replacement project (measure **HAZ-4**).

The Project would have no operational effects relating to reasonably foreseeable upset and accident conditions involving the release of hazardous materials. With implementation of measures **HAZ-1** through **HAZ-4**, impacts related to the proposed Project 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, the proposed Project would result in **No Impact**. The No-Build alternative would 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?

Review of federal, state, and local records identified no upgradient sites within a half-mile of the subject property that have the potential to affect environmental conditions at the subject property. For more information regarding the REC located within the Project area, please see the discussion under IMPACT HA-2. With implementation of measure **HAZ-4**, impacts related to the proposed Project would be **Less than Significant with Mitigation**. The No-Build alternative would 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 is proposing a bridge replacement along an existing stretch of road and does not have a land-use element that is inconsistent with the BAFB or Yuba County Airport Land Use Compatibility Plans or base operations. The Project site is over 6-miles from either one of the aforementioned airports. Therefore, the proposed Project would result in **No Impact**. The No-Build alternative would 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?

Waldo Road and the existing bridge will remain open throughout construction. 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. Additionally, the proposed Project would improve emergency response time by providing a crossing sufficient for both pedestrian and vehicular use. The proposed Project would result in **No Impacts**. 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 does not propose any development; therefore, it would not expose people or structures to wildland fires. All heavy equipment used during the construction of the Project will be mandated to possess fire extinguishers and all construction personnel training to use the fire extinguishers. The Project would result in **No Impact**. The No-Build alternative would result in **No Impact**.

Alternatives Summary

Build Alternative

Hazardous waste impacts are not anticipated to be significant as a result of the Build Alternative. The potential to encounter unknown substances or MEC is possible. With the mitigation measures below, impacts would be reduced to less than significant levels.

No-Build Alternative

The No-Build 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.**

3.8.5 Avoidance, Minimization, and/or Mitigation Measures

HAZ-1: The presence of lead in soil within the Project area and paint on the bridge indicate that the requirements of Construction Safety Orders, Section (§) 1532.1 Lead, are applicable to work performed within the Project limits but a pre-work notification is not required. In addition, Caltrans Special Provision 7-1.02K(6)(j)(iii) is applicable to address safety measures associated with handling of lead containing earth materials.

HAZ-2: If more than 160 square feet, 260 linear feet or 35 cubic feet of regulated asbestos containing material (RACM) is discovered and planned for removal on the Project, formal written notification to the CARB is required.

HAZ-3: If RACM is discovered during site work and planned for disturbance at the bridge site then Cal/OSHA Construction Safety Orders, §1529 Asbestos is applicable.

HAZ-4: Monitoring will be conducted during construction to evaluate the absence or presence of MEC. Further evaluation for the presence of MEC in the Project area may be required. In the event that MEC is identified, appropriate removal and disposal of MEC should be completed in accordance with regulatory standards.

3.9 HYDROLOGY/WATER QUALITY

3.9.1 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 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 United States RWQCB 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 United States. This permit program is administered by the U.S. Corps.

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 Corps’s Standard permits. For Standard permits, the Corps decision to approve is based on compliance with United States 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 United States) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that Corps may not issue a permit if there is a least environmentally damaging practicable alternative, 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 Corps, 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 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 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.

Water Quality Control Plan for the Sacramento-San Joaquin River Basins

Yuba County is within the jurisdiction of the Central Valley RWQCB, which is responsible for the preparation and implementation of the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Basin Plan), adopted in 1998 and revised in October 2007 (CVRWQCB 2007). The Basin Plan identifies the beneficial uses of water bodies and provides water quality objectives and standards for waters of the Sacramento River and San Joaquin River hydrologic regions, which includes waters within the County.

Construction General Permit

Construction General Permit (Order WQ 2022-0057-DWQ) became effective on September 1, 2023. 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 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 the Corps. The 401 Certification is obtained from the appropriate RWQCB, dependent on the project location, and is required before the Corps 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

County of Yuba Storm Water Management Plan

The County of Yuba Storm Water Management Plan (SWMP) is implemented by Yuba County to fulfill requirements of the NPDES Phase II requirements for Small Municipal Separate Storm Sewer Systems (Small MS4s) (Yuba County 2004). The six minimum control measures required by the Phase II requirements and implemented by the SWMP are:

- Public Education: Education of the public regarding the importance of the SWMP and the importance of the public's role in the program.
- Public Participation: Involve the public in the ongoing development and refinement of the SWMP, allow for input on the control measures, and encourage public participation in implementation of the measures.

- Illicit Discharge Detection and Elimination: Pursue ordinances or take equivalent measures that prohibit illicit discharges and develop programs to detect illicit discharges.
- Construction Site Stormwater Runoff Control: Develop measures to control the discharge of pollutants from construction sites greater than or equal to 1 acre in size within the County. The programs must include inspections of construction sites and enforcement actions against violators.
- Post-construction Stormwater Management: Develop measures to require long-term BMP's that protect water quality and control runoff flow to be incorporated into development and substantial redevelopment projects.
- Pollution Prevention/Good Housekeeping for Municipal Operations: The County and other affected agencies within the County will evaluate their activities and develop a program to prevent the discharge of pollutants from those activities. At a minimum, the program will educate staff on pollution prevention and minimize pollutant sources.

Yuba County General Plan

The Yuba County General Plan Chapter 6- Public Health & Safety Element contains goals, objectives, and policies related to Water Quality. The following goals are applicable to Water Quality:

- Goal HS3. Water Quality: *Preserve, protect, and improve the quality of regional water supplies*.

3.9.2 Environmental Setting and Existing Conditions

The proposed Project is within the Dry Creek Watershed. There are three creeks within the Project area: Dry Creek, Vineyard Creek, and Albion Creek. Vineyard Creek is a northerly, ephemeral tributary of Dry Creek and Albion Creek is an ephemeral, southerly tributary of Dry Creek. Dry Creek is a perennial, easterly tributary of Bear River, which drains water from the Sierra Nevada Mountains into the Sacramento Valley. Both ephemeral drainages drain water off the nearby Sierra Nevada foothills.

Local Hydrology

Surface Water Features

Dry Creek is a tributary of the lower Bear River, which is an easterly tributary of the Feather River. Dry Creek is a perennial creek rising west of Grass Valley and flowing through Spenceville Wildlife Area and BAFB. Dry Creek is one of the primary drainages in Yuba County. It drains water from the Sierra Nevada Mountains through mostly blue oak woodland habitat. Vineyard Creek is a small, northerly tributary of Dry Creek. It is an ephemeral stream which drains water from the Sierra Nevada foothills during portions of the wet season (October 15 – April 1). Vineyard Creek occurs within the BSA just west of the existing bridge. Albion Creek is a small, southerly tributary of Dry Creek. It is an ephemeral drainage which crosses into the BSA briefly before draining into Dry Creek.

Floodplains

The FEMA Flood Insurance Rate Map (FIRM) indicates the Project area is in Zone D, areas in which flood hazards are undetermined, but possible.

Wetlands

There are seasonal and riparian wetlands that occur within the BSA. Seasonal wetlands within the BSA are either attributed to roadway run off or associated with ephemeral creeks. Riparian wetlands occur along Dry Creek where soils are less permeable.

3.9.3 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?

3.9.4 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 may result in ground disturbance equal to or greater than one acre in size and is also within the jurisdiction of the Central Valley RWQCB, which develops and enforces water quality objectives and implementation plans that safeguard the quality of water resources in its region. Prior to construction of a Project greater than one acre, the RWQCB requires a Project applicant to file for a NPDES General Permit. The General Permit process requires the Project applicant to 1) notify the State, 2) prepare and implement a SWPPP, and 3) to monitor the effectiveness of the plan.

Measure **WQ-1** shall be incorporated into the Project's construction activities and stormwater runoff design to offset the potential for siltation (erosion) and other potential water quality impacts. Impacts related to the proposed Project 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 will not affect groundwater supplies or interfere with any groundwater recharge. There is not a development component to the Project. Therefore, the proposed Project would result in **No Impact**. The No-Build alternative would 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;

The proposed construction plan would not substantially alter the existing drainage pattern of the site or area. The natural drainage pattern of the area will be enhanced, but not altered in terms of changing drainage channels/paths.

The Project sponsor is also required to file a NPDES General Construction Storm Water Permit. The NPDES General Construction Permit process requires the Project sponsor to 1) notify the State, 2) prepare and implement a SWPPP, and 3) monitor the effectiveness of the plan. The SWPPP identifies pollutants that may be generated at the construction site, including sediment, earthen material, chemicals, and building materials. The SWPPP also describes BMPs that a Project will employ to eliminate or reduce contamination of surface waters. Implementation of measure **WQ-1** would control potential erosion problems. Impacts related to the proposed Project would be **Less than Significant with Mitigation**. The No-Build alternative would result in **No Impact**.

(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;

As stated above, the proposed Project would not substantially alter the existing drainage pattern of the site. No future development such as the construction or structures or houses is proposed; however, a small increase in impervious surfaces would occur. Flooding is unlikely to be generated by the additional impervious surfaces. The proposed Project would result in **No Impact**. The No-Build alternative would result in **No Impact**.

(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

As noted in a-ii) above, the proposed Project would not generate higher runoff rates. The proposed Project would result in **No Impact**. The No-Build alternative would result in **No Impact**.

(iv) Impede or redirect flood flows?

The Project is located within Flood Zone D, an area with undetermined flood hazards, as mapped by FEMA (**Figure 8**). As stated above, the proposed Project would not substantially alter the existing drainage pattern of the site. However, a small increase in impervious surfaces would occur. This increase would not be substantial enough to impede or redirect flood flows. Additionally, the vertical profile of the new bridge will be raised slightly to provide sufficient water conveyance beneath the bridge during flood events. The proposed Project would result in **No Impact**. The No-Build alternative would result in **No Impact**.

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

The Project would not create a potential situation for inundation by seiche, tsunami, or mudflow. The Project is located in a dominantly flat landscape, is not located in proximity to a large body of water and is not near the coastal waters. The Project is located within Flood Zone D, an area with undetermined flood hazards, as mapped by FEMA (**Figure 8**). 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 measure **WQ-1**, to reduce the potential for significant effects due to flooding or accidental release of pollutants. Impacts related to the proposed Project 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 would obtain appropriate permits from the RWQCB. 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 incorporate measure **WQ-1**, which would ensure impacts related to the Project will be **Less Than Significant with Mitigation**. The No-Build alternative would result in **No Impact**.

Alternatives Summary

Build Alternative

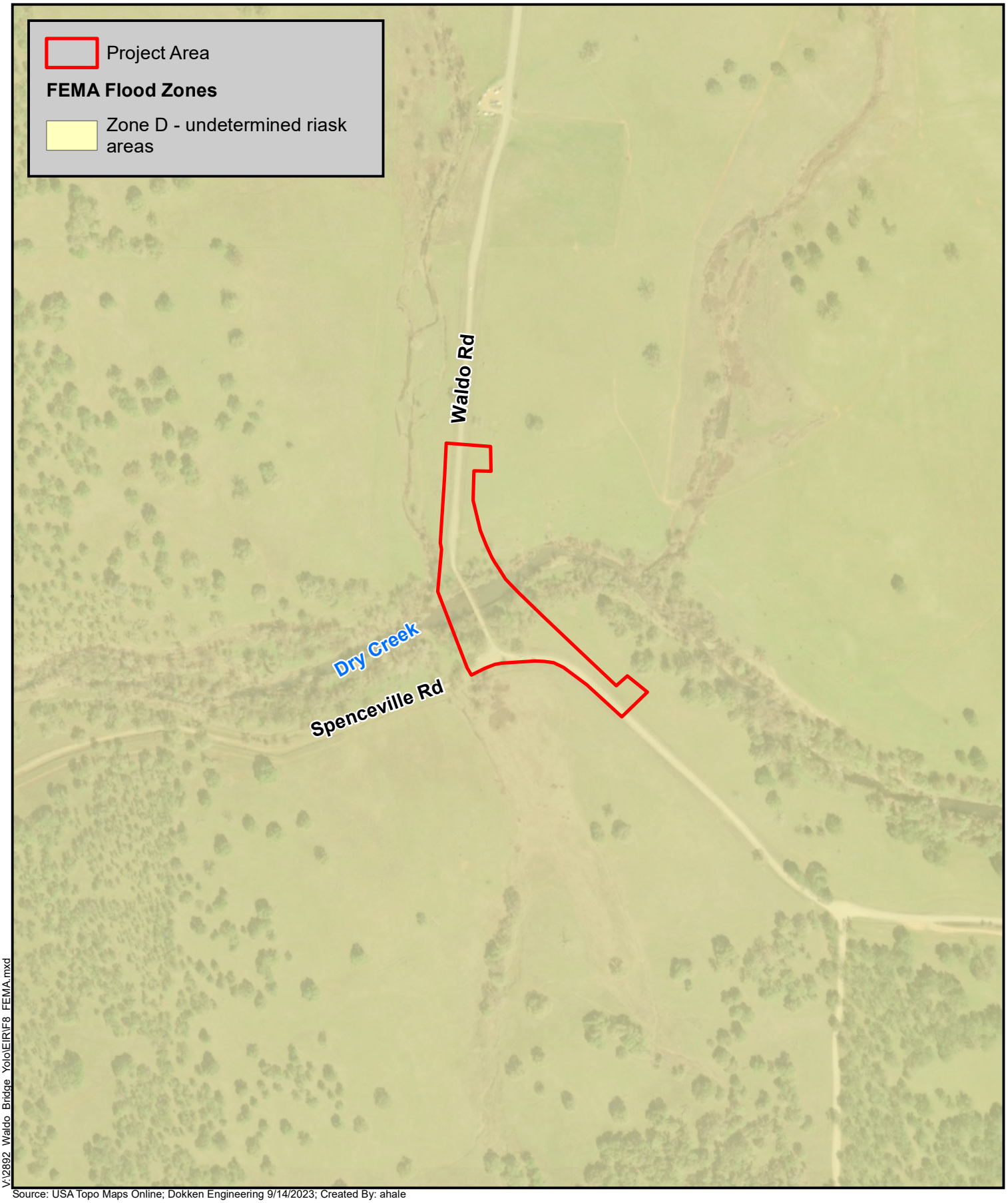
Short-term construction activities would result in the minor loss of vegetation and general disturbance to the soil within the Project footprint. Removal of vegetation and soil can accelerate erosion processes within the Project area and increase the potential for sediment to enter into Dry Creek. With the mitigation measure below, impacts would be reduced to less than significant levels.

No-Build Alternative

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

3.9.5 Avoidance, Minimization, and/or Mitigation Measures

WQ-1: Prior to the County's approval of a grading plan or site improvement plans, the project applicant shall obtain from the Central Valley RWQCB a NPDES Permit for the disturbance of over one acre. Further, approval of a General Construction Storm Water Permit. The permitting process also requires that a SWPPP be prepared prior to construction activities. The SWPPP is used to identify potential construction pollutants that may be generated at the site including sediment, earthen material, chemicals, and building materials. The SWPPP also describes best management practices that will be employed to eliminate or reduce such pollutants from entering surface waters.



V:\2892_Waldo_Bridge_Yolo\EIR\F8_FEMA.mxd

Source: USA Topo Maps Online; Dokken Engineering 9/14/2023; Created By: ahale

1 inch = 500 feet

0 260 520 780 1,040 Feet

Figure 8
FEMA Flood Zones
Waldo Road Bridge over Dry Creek Replacement Project
BRLO-5916(092)
Yuba County California

3.10 NOISE

3.10.1 Regulatory Setting

Local Laws and Requirements

Yuba County Code

The County Code Chapter 8.20, Noise Regulations, includes regulations and standards aimed at controlling unnecessary, excessive, and annoying noise and vibration in the unincorporated County. In addition, a goal of the noise regulations is to maintain quiet in those areas which exhibit low noise levels and to implement programs aimed at reducing noise in those areas within the County where noise levels are above acceptable limits.

The Code provides regulations that establish the required ambient noise levels and maximum allowable noise levels based on the land use and time of the day. The Code also places restrictions on specific activities (e.g., construction, musical instruments, amplified sound). Lastly, the Code identifies exemptions for specific activities or special events to the noise regulations.

Yuba County General Plan

The Yuba County General Plan Chapter 6 – Public Health & Safety contains goals, objectives, and policies related to Noise. The following goal addresses noise:

- Goal HS10. Noise and Vibration: *Ensure that noise does not substantially reduce the local quality of life.*

3.10.2 Environmental Setting and Existing Conditions

A review of aerial photography and the Yuba County 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 Waldo Road bridge replacement that would benefit from a lowered noise level. The land use within the Project area is Natural Resources as defined by Yuba County's General Plan, however, there are no residential units in close proximity of the existing or proposed bridge. There are no sensitive receptors withing 500 feet of the proposed bridge replacement.

3.10.3 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?*

3.10.4 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?

The Yuba County 2030 General Plan contains recommended ambient allowable noise level objectives. The plan recommends a maximum allowable ambient noise level of 50 dB in both daytime and evening hours. Construction activities associated with the Project may cause a temporary increase in noise levels in the vicinity. However, these noise levels would be temporary and would cease once construction activities end. In addition, the temporary construction noise associated with grading activities would be similar to noise generated by other rural residential activities. There are few residences on the surrounding parcels and construction noise is expected to have little impact on these parcels. The County noise ordinance requires that both agriculture and low- density residential zones not exceed an ambient noise level of 50 decibels from 10:00 pm to 7:00 am. This would further reduce construction noise impacts on the few residences adjacent to the Project site, particularly at nighttime when residents are most sensitive to noise. Additionally, the only noise generated by the project would be during the construction phase; there would be no permanent increase in ambient noise levels in the Project vicinity.

To further reduce construction generated noise, measure **NOI-1** would be implemented. Impacts related to the proposed Project would be **Less than Significant.** 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. 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; therefore, impacts would be **Less than Significant**. 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 nearest airport to the Project site is the BAFB Airport. The existing and future land use will not change as a result of this Project and the Project would not expose people residing or working in the Project area to excessive noise levels. Therefore, the proposed Project would result in **No Impact.** The No-Build alternative would result in **No Impact**.

Alternatives Summary

Build Alternative

Impacts to noise would only occur during construction and would be temporary and intermittent. With implementation of **NOI-1**, the Build Alternative would not cause adverse noise and vibration impacts.

No-Build Alternative

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

NOI-1: To minimize the construction-generated noise, abatement measures as specified in the special provisions under Standard Specification 14-8.02 “Noise Control” and SSP14-8.02 must be followed:

- 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.

3.11 PUBLIC SERVICES

3.11.1 Regulatory Setting

State Laws and Requirements

California Fire Code

The California Fire Code includes specialized regulations related to construction, maintenance, and the use of buildings in relation to fire and safety. The extent of the code coverage pertains to fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions to aid fire responders, industrial processes, and other fire safety requirements for new and existing buildings.

California Health and Safety Code

State fire regulations, set forth in Section 13000 et seq. of the California Health and Safety Code, include regulations for building standards, fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and child care facility standards, and fire suppression training.

Local Laws and Requirements

Yuba County General Plan

The Yuba County General Plan – Community Development Element contains goals, objectives, and policies related to Public Services. The following goals are applicable to Public Services:

- Goal CD12. Level of Service: Public Services and Facilities, *Ensure high-quality public services, infrastructure, and facilities with adequate capacity to meet the needs of Yuba County's existing and future residents, businesses, industries, and employers*.
- Goal CD14. Coordinated Public Services, Regional Services, *Provide coordinated public service and infrastructure planning*.
- Goal CD20. Connectivity, *Multiple connections to promote circulation and emergency access throughout valley and foothill communities*.

3.11.2 Environmental Setting and Existing Conditions

Fire

In the unincorporated County, fire protection services are provided by CAL FIRE, the United States Forest Service, and the Smartville Fire Protection.

Police

In Yuba County, the Yuba County Sheriff's Department and California Highway Patrol provide law enforcement services in the unincorporated portions of the County.

School District

The Project is located in the Wheatland School District. There are no schools near the Project area. The nearest schools, Lone Tree School and Wheatland Charter Academy, are located in the BAFB.

Parks

There Project area is within the Spenceville Wildlife Area, a 11,900-acre wildlife preserve and public outdoor recreation area administered by CDFW.

3.11.3 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?

3.11.4 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 and would not impact access to and within the Spenceville Wildlife Area.

The existing police and fire stations have a capacity to serve any Project-related needs that may arise. Short-term construction impacts to traffic operations are anticipated to be minimal since the existing bridge would remain open throughout construction. Impacts related to construction would be **Less than Significant.** 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

Build Alternative

During construction of the Build Alternative, emergency vehicle access would remain, and there would be no additional public services needed beyond what was previously anticipated in the County General Plan.

No-Build Alternative

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.

3.11.5 Avoidance, Minimization, and/or Mitigation Measures

No Avoidance, Minimization, and/or Mitigation Measures are required.

3.12 TRANSPORTATION/TRAFFIC

3.12.1 Regulatory Setting

Yuba County General Plan

The Yuba County General Plan Chapter 6 – Community Development contains goals, objectives, and policies related to Transportation and Circulation. The following goals are applicable to Transportation and Circulation.

- Goal CD16. Level of Service: Roadway System: *Maintain a roadway system that provides adequate level of service, as funding allows, and that is consistent with the County's planning, environmental, and economic policies*.
- Goal CD17. Travel Demand Management: *Reduce costs of transportation infrastructure, increase freedom of mode choice, maintain air quality, and improve the local quality of life my managing travel demand.*
- Goal CD18. Regional Transportation Planning: *Improved transportation access throughout the County and surrounding region.*
- Goal CD19. Freedom of Travel Mode Choice: *Roadway design, development patterns, and circulation systems that encourage walking, bicycling, and transit use.*
- Goal CD20. Connectivity: *Multiple connections to promote circulation and emergency access throughout valley and foothill communities.*

3.12.2 Environmental Setting and Existing Conditions

Located in a rural, undeveloped area of Yuba County, the existing bridge is a lightly traveled route passing through rolling Sierra foothills terrain. Waldo Road and other adjacent roads are used by locals as well as recreational users. There are a few small communities within the Project vicinity, however, Waldo Road does not serve as a primary evacuation route for any of these communities.

3.12.3 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?

3.12.4 Environmental Impacts

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 bridge is structurally deficient. The proposed replacement bridge would enhance safety by providing a crossing sufficient for both pedestrian and vehicular use, including emergency vehicles. The Project is therefore consistent with the goals, policies, and objectives of the Yuba County General Plan Chapter 6 – Community Development. There would be **No Impact**. The No-Build alternative would result in **No Impact**.

IMPACT TRA-2: Potential to conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

The existing bridge is a one lane bridge. The replacement bridge would provide sufficient width for two, twelve-foot lanes and two, four-foot shoulders. This widening would not be considered capacity-increasing as it would enable the bridge to finally match the existing capacity of Waldo Road; 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 create hazards due to a geometric design feature?

The Project would reduce hazards by constructing a safer bridge suitable for emergency access that is consistent with the goals, policies, and objectives of the Yuba County General Plan. Additionally, the new bridge will require a realignment of the roadway, which will correct the existing substandard curves on roadway approaches to the bridge. The Project would remove safety hazards resulting in **No Impact**. 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 impact emergency access?

During construction, the existing bridge would remain open until the new bridge is complete. Traffic may experience minor slowdowns, but emergency access is not expected to be impacted. The Project would 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. Impacts related to the proposed Project would be **Less than Significant**. 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

Build Alternative

The replacement bridge would meet current design and safety standards which can safely convey vehicles, including emergency response vehicles, and pedestrians access Dry Creek. Additionally, the existing bridge would remain open during construction and traffic would experience minor slowdowns. Impacts related to the Build Alternative would be less than significant.

No-Build Alternative

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**.

3.12.5 Avoidance, Minimization, and/or Mitigation Measures

No Avoidance, Minimization, and/or Mitigation Measures are required.

3.13 TRIBAL CULTURAL RESOURCES

3.13.1 Regulatory Setting

State Laws and Requirements

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. 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. CEQA also stipulates that the Native American Heritage Commission shall assist the lead agency in identifying the California Native American Tribes that are traditionally and culturally affiliated within the Project area. If a 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 cultural 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.

Local Laws and Requirements

Yuba County General Plan

The Yuba County General Plan Chapter 7 – Natural Resource Element, contains goals, objectives, and policies related to Cultural Resources.

- Goal NR6. Cultural Resources: *Identify, protect, and preserve Yuba County's important Indigenous and historic resources.*

3.13.2 Environmental Setting and Existing Conditions

The Project area is located on the eastern side of the Sacramento River Valley, west of the Sierra Foothills in Yuba County. Elevation in the Project area ranges from 250 ft. to 272 ft. above mean sea level. This area is characterized by undulating hills interspersed with tributaries of the Yuba River. Dry Creek is one of these drainages and bisects the Project area. The creek flows west through the historic period town of Spenceville, the Project area, Beale Lake, and eventually empties into the Bear River in Rio Oso. Per Yuba County's General Plan Figure NR-6, Dry Creek is considered an area of high sensitivity for the presence of indigenous resources.

Cultural resources investigations for this Project occurred in 2012, 2013, and 2022 and included pedestrian surveys, Extended Phase I presence/absence subsurface testing, and Phase II evaluation testing. The APE for the Project was established in consultation with William Larson, Caltrans PQS Principal Investigator, Indigenous Archaeology, and Vlad Popko, District Local Assistance Engineer, on June 23, 2023 (**Figure 7**). The horizontal APE was established as the area of direct and indirect effects and consists of an approximately 14-acre area; however, the area of direct effects, which includes all staging areas, construction vehicular and equipment access, vegetation/tree removal, approach roadway realignment, bridge demolition, new bridge construction, water diversions, right-of-way acquisition, and grading activities required to remove the existing Waldo Road over Dry Creek Bridge (Bridge No. 16C0006) consists of an approximately 5.5-acre area. Potential staging areas are the existing roadway, the proposed new roadway alignment, and areas at the north and south ends of the project site east of the new roadway alignment.

The vertical APE consists of a maximum of 20 feet of depth from the existing ground surface to below ground surface (bgs) to accommodate earthwork for the construction of bridge abutments. 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.

Native American Outreach

A letter requesting a search of the Sacred Lands File and a list of Native American individuals and organizations that may have knowledge of, or concerns regarding, cultural resources in the Project area was sent to the Native American Heritage Commission. The search of the Sacred Lands File did not identify any known sacred lands or cultural resources in the "immediate project area".

In 2012, project notification letters were sent to all potentially interested parties identified by the Native American Heritage Commission. An additional round of project notification letters were sent in 2017 notifying the recipients that archaeological excavations would occur within the APE. Letter recipients included the following:

- Colfax-Todds Valley Consolidated Tribe
- Enterprise Rancheria of Maidu Indians
- Mooretown Rancheria of Maidu Indians

- Strawberry Valley Rancheria
- Tsi-Akim Maidu
- United Auburn Indian Community

The Enterprise Rancheria of Maidu Indians responded to the 2021 outreach attempt and requested that a cultural monitor be present during any archaeological excavation. No response was received by the Enterprise Rancheria of Maidu Indians regarding the 2017 letter which communicated that archaeological excavations were going to occur.

One response was received by the United Auburn Indian Community (UAIC). The UAIC is a federally recognized Tribe comprised of both Miwok and Maidu (Nisenan) Tribal members who are traditionally and culturally affiliated with the project area. The Tribe has a deep spiritual, cultural, and physical ties to their ancestral land and are contemporary stewards of their culture and landscapes. The Tribal community represents a continuity and endurance of their ancestors by maintaining their connection to their history and culture. It is the Tribe's goal to ensure the preservation and continuance of their cultural heritage for current and future generations.

In 2017, the UAIC requested a site visit. During the site visit, the UAIC requested that no destructive analyses, such as obsidian hydration, be conducted on Native American artifacts recovered during the archaeological excavation. The UAIC also requested that a UAIC monitor be present during all archaeological excavations and that all discovered artifacts and features be reburied rather than submitted to a curation facility for permanent curation. As requested, a UAIC monitor was present during archaeological excavations and no destructive testing, such as hydration analyses, was conducted. All collected artifacts were provided to the UAIC and are currently awaiting reburial pending the completion of construction activities and identification of a reburial location, to be determined in consultation with the County and the UAIC.

Project update letters were also sent in 2023 to inform the recipients that demolition of the existing bridge was included as a component of the Project and that additional survey of the demolition area would occur. The update letter also relayed the results of the previous archaeological investigations. The Mooretown Rancheria and the UAIC were the only respondents. The Mooretown Rancheria stated that they did not have any information regarding known resources to share but requested to be notified if new information becomes available or if late discoveries are identified.

The UAIC requested copies of all available cultural reports and a history of previous consultation. After review of the reports and consultation history, the UAIC noted that the Project would impact Tribal Cultural Resource (Cultural Site CA-YUB-1924/H). The UAIC provided recommendations regarding minimization measures and protocols to be implemented should Native American cultural resources be discovered during construction of the Project. Minimization measures and protocols included retaining a compensated Native American monitor to be present during ground disturbing activities; halting work within a 100-foot radius if Native American resources are discovered to assess significance and treatment by the UAIC; reburial of discovered artifacts within a location that will be protected from future ground disturbing activities; and compensation for all services provided by the UAIC. The County will continue coordinating with the UAIC to develop a TCR Protocol Plan (measure **TCR-2**) which will be implemented during construction.

Background Research

A search of survey reports, site records, historic maps and other pertinent data on file at the North Central Information Center within the APE and a quarter-mile search radius was obtained. The search results indicated that one cultural resource was located beyond the APE but within the search radius. The record search also identified Waldo Bridge, BR# 16C0006, as a recorded

historic-era bridge that was also previously determined as eligible for listing on the National Register of Historic Places. Subsequent review of the bridge also determined it was eligible for listing on the California Register of Historical Resources. This qualifies the bridge as both a historic property, under Section 106 of the National Historic Preservation Act, and a historical resource, under CEQA.

Methods

The UAIC conducted background search for the identification of Tribal Cultural Resources for this project, which included a review of pertinent literature, historic maps, and a records search using UAIC's Tribal Historic Information System (THRIS). UAIC's THRIS database is composed of UAIC's areas of oral history, ethnographic history, and places of cultural and religious significance, including UAIC Sacred Lands that are submitted to the Native American Heritage Commission (NAHC). The THRIS resources shown in this region also include previously recorded indigenous resources identified through the California Historic Resources Information System Center (CHRIS) as well as historic resources and survey data.

Field Methods

Pedestrian surveys of the APE took place in 2012 and 2013 by Peak and Associates archaeological staff and Caltrans archaeological staff and again in 2022 by Dokken Engineering archaeological staff. During these surveys, both the ground surface and exposed subsurface cuts, such as the cut banks within Dry Creek, as well as roadway cuts, and animal burrows 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. Two cultural resources were identified: the existing historic-era Waldo Road Bridge and one cultural site, CA-YUB-1924/H, exhibiting use during both indigenous and historic occupation periods. A Phase II evaluation, which included both archaeological excavation, laboratory analyses, and research efforts, was conducted to determine whether the site was eligible for listing on the National Register of Historic Places and/or the California Register of Historical Resources. The results of the significance assessment for the cultural site are discussed below. For discussion on the historic-era Waldo Bridge and the historic-component of CA-YUB-1924/H, please see Chapter 3.4 Cultural Resources in this document.

Identified Tribal Cultural Resource: CA-YUB-1924/H

One TCR was identified within the APE, CA-YUB-1924/H, which includes both indigenous-era and historic-era components. The indigenous component contained a sparse artifact assemblage with few functionally and temporally diagnostic lithic tool materials. Two historic-period assemblages were also present. One is associated with the Cabbage Patch townsite, which was located on level terrain both north and south of Dry Creek. Cabbage Patch included one of the earliest known African American settlements, which appears to have begun with a cabbage patch agricultural business. The area later grew to develop a small townsite during the California Gold Rush years with hotel, blacksmith shop, and other businesses and residences catering to several nearby large mining areas and ephemeral mining camps. None of these structures were identified within the APE. There may have also been placer mining in the immediate vicinity of the townsite, although no evidence of such activities were identified within the APE. The townsite also contained the Cabbage Patch cemetery, located beyond the APE. The second historic period assemblage appears associated with the development of a Sacramento spur of the Bay Counties Power Company pole line that was built from Colgate to Sacramento through Cabbage Patch between 1895 and 1901. While the historical records do not document the presence of Native Americans within the Cabbage Patch settlement or nearby Spencerville townsite, historical documentation of Native American presence is unreliable.

Archaeological excavations revealed that the portion of the site within the APE exhibits evidence of previous ground disturbance activities which have damaged and likely redeposited both the Native American and historic assemblages from their original depositional locations. Based on the paucity of artifacts, seemingly redeposited surface materials, and lack of buried cultural material typical of sustained human occupation, it is believed that the APE is located on the peripheral edge of a Native American and historic-era occupation area that extends beyond the APE onto private property. Based on the artifacts and presence of nearby food processing features located along Dry Creek, the Project vicinity was used by Native Americans for food procurement and processing; however, it is very likely that the Project vicinity was used for a plethora of indigenous people's purposes, including habitation, travel, and spiritual ceremonies.

Cultural Components and Character Defining Features

As the full boundary of the site extends beyond the APE onto private property, its complete limits, associated archaeological features, and artifacts could not be identified; however, TCRs contain more than archaeological features and artifacts. The site's natural components comprise both its overall setting and include resources that would have been utilized or integrated into daily life. While there may not be any plant or wildlife that have survived since the original Native American occupation of this area, the existing the plant and wildlife species can be assessed to determine if the current conditions represent pre 1800s/European settlement conditions.

The natural components consist of Dry Creek, Vineyard Creek, Albion Creek, Cox Creek, oak woodland, riparian vegetation, rolling terrain of the foothills, bedrock outcrops, and the California native wildlife species utilizing these habitats. The oak woodlands and riparian vegetation are unlikely to have varied significantly between modern conditions and pre-European settlement of the area, with the majority of the alterations most likely resulting in thinning the vegetation, as opposed to eradication. Existing vegetation includes blue oak woodland, valley foothill riparian, annual grassland, and wetlands. Blue oaks make up the majority of the tree species composition within the APE and the understory is comprised of sparsely scattered shrubs and annual grass species. Species found in association with blue oak woodlands within the Project vicinity include California coffeeberry (*Rhamnus californica*), poison oak (*Toxicodendron diversilobum*), and a variety of annual grassland species. Common species found in the annual grasslands include rose clover (*Trifolium hirtum*), rip-gut brome (*Bromus diandrus*) wild oat (*Avena sp.*), soft chess (*Bromus hordeaceus*), and red brome (*Bromus madritensis ssp. rubens*). Invasive species such as yellow star-thistle (*Centaurea solstitialis*), medusahead grass (*Taeniatherum caputmedusae*), and Italian thistle (*Carduus pycnocephalus*) were also observed within the annual grasslands and were likely introduced to the area after the 1850s.

Valley foothill riparian habitat occurs on both sides of Dry Creek. This habitat is associated with Dry Creek and its seasonal flooding. Species found in association with valley foothill riparian habitat within the Project vicinity include Fremont cottonwood (Populus fremontii), valley oak, California black walnut (Juglans californica), Oregon ash (Fraxnus latifolia), black willow (Salix goodingii), arroyo willow (Salix lasiolepis), narrowleaf willow (Salix exigua), California wild rose (Rosa californica), and Himalayan blackberry (Rubus armeniacus). While Himalyan blackberry is invasive, it is very likely that native blackberries would have been present prior to being displaced/outcompeted.

Seasonal wetlands that are associated with Albion Creek and Vineyard Creek occur along the fringes of their ordinary high water marks. Riparian wetlands occur along Dry Creek where soils are less permeable. These wetlands occur in areas, primarily along the north banks of Dry Creek.

The waterways and various flora offer habitat for a variety of wildlife species. Some of the species that were observed included acorn woodpecker (*Melanerpes formicivorus*), Anna's hummingbird (*Calypte anna*), Lewis's woodpecker (*Melanerpes lewis*), and western fence lizard (*Sceloporus*

occidentalis). Additionally, according to Mayer and Laudenslayer's A Guide to Wildlife Habitats of California (1988), valley foothill riparian habitat functions as wildlife migration and dispersal corridors, escapement and nesting areas and provides food, shelter and water for a variety of species of resident and migrating wildlife species. Wildlife species use grassland habitat for foraging, but require some other habitat characteristic such as rocky out crops, cliffs, caves or ponds in order to find shelter and cover for escapement. This type of cover is present due to bedrock outcrops throughout the Project vicinity. Species observed within the annual grasslands included American goldfinch (*Spinus tristis*), lesser goldfinch (*Spinus psaltria*), California quail (*Callipepla californica*), and killdeer (*Charadrius vociferus*).

The variety of existing plant and wildlife species would have also been present during indigenous occupation of the area and may have included a greater species variety in larger populations. While the blue oak woodland, valley foothill riparian, annual grassland, waterways, wetlands, rock outcrops, and associated animal species comprise the resource's overall setting and feel, the plant and wildlife species also would have provided numerous daily resources. The creeks would have provided reliable fresh water for drinking and food processing, as well as fish, frogs, turtles, and waterfowl which would have been utilized for food. The rock outcrops were likely utilized for food grinding and other plant and wildlife processing, but may have also acted as blinds for both small and large animal hunting. The woodlands would have provided acorns, a staple food in the foothills, as well as other staples including clovers, walnuts, wild oat, rose hips, and blackberries. Vegetation present in the Project vicinity would have also been utilized for shelter, clothing, adornment, and medicinal purposes. Coffeeberry could have been used as a poison oak remedy; cottonwoods could have been used for structures, poultices, arrow shafts, and clothing; and willows and some annual grasses would have been used for basketry, clothing, and arrow shafts.

While the plant and wildlife species may have been more dense or more varied during Native American occupation of the Project vicinity, the existing species are a continuation of a landscape present during Native American population and represent pre-1800s/European settlement conditions. For these reasons, the Dry Creek, Vineyard Creek, Albion Creek, Cox Creek, oak woodland, riparian vegetation, rolling terrain of the foothills, bedrock outcrops, and the California native wildlife species utilizing these habitats constitute character defining components of the Native American occupation era of TCR CA-YUB-1924/H. Additional character defining components of the site include lithic artifacts, representing tool creation, identified during archaeological excavations within the APE.

Significance Assessment

As previously noted, the entire cultural site boundaries could not be defined as the site extends beyond the APE into private property. As the full boundary and all associated features, artifacts, and natural components could not be identified, *formal* assessment of the site's significance cannot be completed at this time. However, for the purpose of both CEQA and Section 106 of the National Historic Preservation analysis, the site is being assumed eligible for listing on both the National Register of Historic Places and the California Register of Historical Resources, for the purposes of this Project only, under the National Register of Historic Places/California Register of Historical Resources Criteria A/1 and D/4 for associations with important events in our history as well as containing information that has yielded, or has the potential to yield, information important to understanding the history of both this area and of California. Any future projects which occur within the suspected boundary of the cultural site will be required to document whether additional artifacts and features are present, assess site's significance, and determine any potential impacts.

As the cultural site is being assumed eligible for both the National Register of Historic Places and the California Register of Historical Resources, for the purposes of this Project only, the site is considered a historic property, as defined under Section 106 of the National Historic Preservation

Act; a historical resource as defined under CEQA §15064.5; and as a Tribal Cultural Resource, as defined under CEQA §21074. As such, potential Project impacts to this resource must be assessed to determine if mitigation is required. Potential impacts are discussed below.

3.13.3 Thresholds of Significance

Would the Project:

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

3.13.4 Environmental Impacts

IMPACT TCR-1: Potential to cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.?

TCR CA-YUB-1924/H includes evidence of occupations during both Native American and historic-era periods. It was evaluated as part of this Project and determined eligible for inclusion in the National Register of Historic Places and California Register of Historical Resources, for the purposes of this Project only. The character defining features of the Native American occupation of the area consist of the natural components and overall setting which consist of Dry Creek, Vineyard Creek, Albion Creek, Cox Creek, riparian vegetation, rolling terrain of the foothills, bedrock outcrops and the California native wildlife species utilizing these habitats. While the plant and wildlife species may have been more dense or more varied during Native American occupation of the Project vicinity, the existing species are a continuation of a landscape present during Native American population and represent pre-1800s/European settlement conditions. Additional character defining components of the site include lithic artifacts, representing tool creation and processing.

Project impacts to the character defining features of the Native American occupation of CA-YUB-1924/H include construction of the new bridge and demolition of the existing bridge. Construction

and demolition activities will involve removal of vegetation, including trees and understory shrubs that constitute the oak woodland and riparian habitats; however, after demolition and construction activities, the area will be revegetated with California native vegetation, as part of mitigation measure **TCR-4**. This will restore biological habitat to the area, especially within the area of the demolished bridge. While construction of the new bridge at the upstream location will introduce a new modern visual component, the overall setting of the area – which consists of Dry Creek, Vineyard Creek, Albion Creek, Cox Creek, oak woodland, riparian vegetation, rolling terrain of the foothills, and bedrock outcrops - will still remain in abundance and offer a strong connection to the pre-1800s setting. Further, the overall health of the biological habitats which comprise the setting of the TCR, including wildlife species and water quality, will also be protected from anticipated impacts through implementation of measures **BIO-1** through **BIO-34.**

Additionally, as the results of the archaeological excavation noted that the APE is located on the periphery of the larger cultural site, demolition and construction activities are not anticipated to impact subsurface Native American artifact deposits/concentrations. If any such subsurface deposits are found or if sparsely scattered surface artifacts are encountered during construction, mitigation measures **TCR-1** through **TCR-3** will ensure that discovered resources will be assessed and properly treated to avoid destruction. Further, **TCR-3** will also ensure that previously collected artifacts, which are currently in possession of the UAIC, will be reburied in a protected location. For these reasons, the proposed Project is not anticipated to cause a substantial adverse change in the significance of TCR CA-YUB-1924/H. Therefore, implementation of **TCR-1** through **TCR-3** will reduce the Project's impacts to **Less than Significant Impact with Mitigation.**

Alternatives Summary

Build Alternative

While the Build Alternative would involve removal of oak woodland and riparian vegetation, which are considered character defining features of TCR CA-YUB-1924/H, the overall setting of the resource – which consists of Dry Creek, Vineyard Creek, Albion Creek, Cox Creek, oak woodland, riparian vegetation, rolling terrain of the foothills, and bedrock outcrops – will still remain in abundance and retain a strong connection to the pre-1800s setting. It is also worth noting that the existing setting currently includes a modern visual intrusion, the existing bridge/roadway, which is an alteration to the indigenous setting. Replacing the existing bridge/roadway and with a new bridge/roadway on a parallel alignment would not result in additional modern visual alterations to the site, beyond vegetation removal. Implementation of measure **TCR-4** will ensure that California native vegetation is replanted/hydroseeded after construction activities are complete. Implementation of measures **BIO-1** through **BIO-34** will minimize impacts to biological habitat and wildlife species. Finally, implementation of measures **TCR-1** through **TCR-3** will ensure that any TCR components identified during construction will be assessed and properly treated to avoid destruction. Therefore, anticipated Project impacts to TCR CA-YUB-1924/H will **be Less than Significant with Mitigation Incorporated**.

No-Build Alternative

This alternative would not build a replacement bridge adjacent to the existing, structurally deficient bridge. No vegetation removal would occur and the overall setting of TCR CA-YUB-1924/H would not be impacted. No mitigation measures would be implemented.

3.13.5 Avoidance, Minimization, and/or Mitigation Measures

TCR-1: The County shall contact the UAIC at least 2 weeks prior to project ground-disturbing activities to retain the services of a UAIC certified Tribal Monitor. The duration of the construction schedule and Tribal Monitoring shall be determined at this time. A contracted Tribal Monitor(s) shall monitor the vegetation grubbing, stripping, grading,

trenching, and other agreed-upon ground-disturbing activities in the project area. The Tribal Monitor, in consultation with the UAIC Tribal Historic Preservation Officer (THPO) and the County shall determine an end or reduction to the on-site monitoring if/when construction activities have a low potential for impacting Tribal Cultural Resources.

Tribal Monitors or Tribal Representatives shall have the authority to direct that work be temporarily paused, diverted, or slowed within 100 feet of the immediate impact area if sites or objects of potential significance are identified. The temporary pause/diversion shall be of an adequate duration for the Tribal Representative to examine the resource. Once a potential discovery has been identified, the TCR Discovery Protocol (TCR-2) shall be implemented and followed.

The County shall assist with resolution of disagreements between the Construction Contractor and the UAIC, if disagreements occur on the project.

It is the responsibility of the Tribal Monitor(s) to wear the appropriate safety equipment while on the construction site and adhere to construction safety procedures and protocols. To track the implementation of this measure, the Tribal Monitor(s) shall document field-monitoring activities on a Tribal Monitor log.

TCR-2: The County, in consultation with the UAIC, shall develop a TCR Discovery Protocol to be implemented during construction of the Project. The TCR Discovery Protocol will outline how the County and the UAIC will coordinate regarding Native American cultural resources discovered during construction, how those discoveries will be assessed and treated, and how human remains will be treated if discovered and if the UAIC is identified by the Native American Commission as the Most Likely Descendent. The TCR Discovery Protocol will be finalized prior to the start of construction and will be supplied to the Resident Engineer and Construction Manager. At no time, regardless of the presence or absence of a tribal monitor, shall suspected TCRs be mishandled or disrespected.

Discussion of appropriate treatment of TCRs in the TCR Discovery Protocol may include but should not be limited to:

- Recordation of the resource(s)
- Avoidance and preservation of the resource(s)
- Reburial of the resource(s) onsite in a designated area subject to no future disturbance (as specified in TCR-3). The location of the reburial shall be acceptable to the UAIC.

TCR-3: The County, in consultation with the UAIC, will designate an area for the reburial of all collected Native American cultural resources, including those collected as part of previous archaeological investigations and any discovered during construction activities that will be protected for all future ground disturbance either through a deed restriction or in perpetuity-marker designating the protected area. The County will also coordinate with the UAIC regarding compensation for reburial services.

TCR-4: All disturbed areas would be restored to pre-construction contours and revegetated, through hydroseeding or other means. If hydroseed and plant mixes are used during or post-construction, plant species must consist of a biologist approved plant palate seed mix of native species sourced locally to the Project area.

3.14 UTILITIES AND SERVICE SYSTEMS

3.14.1 Environmental Setting and Existing Conditions

Waldo Road is a minor collector road that is located in the Spenceville Wildlife Area in unincorporated Yuba County. Based on multiple site visits and coordination with Underground Service Alert, it has been determined that utility facilities are not located within the Project area. Therefore, no utilities will be impacted or need to be relocated for construction of the Project.

3.14.2 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?*

3.14.3 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?

Since there are no utilities within the Project area, the Project would not require relocation of expansion of utility or service facilities. Additionally, there would be no need for new water/ wastewater, storm water drainage, electric power, natural gas, or telecommunication facilities. Construction would not include any wastewater generating uses. The Project would result in **No Impact.** The No-Build alternative would also 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, the Project 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 wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

The Project would not include the construction of any wastewater-generating uses. Therefore, the Project 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 BMPs incorporated by the construction contractor, which would dispose or recycle waste at an approved waste disposal or recycling facility in Yuba County. Impacts related to the Project 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, the Project would result in **No Impact.** The No-Build alternative would also result in **No Impact**.

Alternatives Summary

Build Alternative

Solid waste produced during construction of the Build Alternative would be disposed or recycled at an approved waste disposal or recycling facility in Yuba County.

No-Build Alternative

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

3.14.4 Avoidance, Minimization, and/or Mitigation Measures

No Avoidance, Minimization, and/or Mitigation Measures are required.

3.15 WILDFIRE

3.15.1 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

Yuba County Code

Firebreaks

Section 10.15.015 of the Yuba County Code requires that every person who owns, controls, rents, or operates any cabin, tent, residence, store, hotel, or other structure within unincorporated Yuba County maintain a 30-foot firebreak or clearing free of inflammable materials and keep the roof free from an accumulation of needles, leaves, or other debris. Where a natural firebreak has been declared to exist by a federal or state forestry officer, no further clearing of inflammable material is required. If the property line is closer to the buildings than 30 feet, the inflammable material need only be cleared to the property line. The Code also requires removing all the brush, flammable vegetation, or combustible growth that is located within 100 feet from the building or structure, or to the property line, or at a greater distance if required by State law, or local ordinance, rule, or regulation.

Fire Mitigation

Chapter 10.35 of the Yuba County Code establishes the Fire District Improvement Fee. Developers of projects within the county that would contribute to an increase in the potential fire danger are to pay this fee when building permits are issued, to mitigate fire risk. The fee is used to finance improvements and equipment for fire protection. Each developer pays a fair share of the total cost of the improvements and equipment.

Yuba County General Plan

The Yuba County General Plan – Chapter 6, Public Health and Safety Element contains goals, objectives, and policies related to Fire Risk. The following goals are applicable:

- Goal HS2, Fire Risk: *Protect people and property from wildland and urban fire risk and create more fire-resilient communities*.

3.15.2 Environmental Setting and Existing Conditions

The Project is located in the SRA of CAL FIRE. The FHSZ is classified as Moderate.

3.15.3 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?

3.15.4 Environmental Impacts

IMPACT WF-1: Potential to impair an adopted emergency response plan or emergency evacuation plan?; **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?**; **IMPACT WF-3: Potential to require the installation or maintenance of infrastructure that may exacerbate fire risk?**; **IMPACT WF-4: Potential to expose people or structures to downslope or downstream flooding or landslides?**

The Project is intended to replace a structurally deficient bridge that will ultimately improve emergency access and wildfire safety to the area. During Project construction, local residents and construction employees would still be able to utilize nearby Smartsville Road, Camp Far West Road, and/or Spenceville Road. Project related impacts to the adopted emergency response plan and emergency evacuation plan would be **Less Than Significant**. 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.**

Alternatives Summary

Build Alternative

The Build Alternative 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. The new bridge provides an adequate evacuation route for residents looking to cross Dry Creek. Impacts would be less than significant.

No-Build Alternative

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.

3.15.5 Avoidance, Minimization, and/or Mitigation Measures

No Avoidance, Minimization, and/or Mitigation Measures are required.

3.16 MANDATORY FINDINGS OF SIGNIFICANCE

3.16.1 Thresholds of Significance

Would the project:

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

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

3.16.2 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. The Project has the potential to impact wildlife species identified in Chapter 3.3 Biological Resources; however, mitigation measures **BIO-1** through **BIO-42** would reduce the level of Project-related impacts to the species and habitat to less than significant levels.

While the Project would involve removal of oak woodland and riparian vegetation, which are considered character defining features of TCR CA-YUB-1924/H, the overall setting of the resource – which consists of Dry Creek, Vineyard Creek, Albion Creek, Cox Creek, oak woodland, riparian vegetation, rolling terrain of the foothills, and bedrock outcrops – will still remain in abundance and retain a strong connection to the pre-1800s setting. Implementation of measure **TCR-4** will ensure that California native vegetation is replanted/hydroseeded after construction activities are complete. Implementation of measures **BIO-1** through **BIO-34** will minimize impacts to biological habitat and wildlife species. Finally, implementation of measures **TCR-1** through **TCR-3** will ensure that any TCR components identified during construction will be assessed and properly treated to avoid destruction.

As the Waldo Road Bridge is considered a historical resource under CEQA, and therefore eligible for the California Register of Historical Resources, demolition of the bridge constitutes a significant effect to the environment, per CEQA guidelines 15064.5(b). To reduce the significant effects, the Project will implement measures **CUL-1a** through **CUL-1c**, which consists of measures included in the Caltrans and SHPO approved MOA and the Archaeological Monitoring Plan/Environmentally Sensitive Action Plan. While measures **CUL-1a** through **CUL-1c** will reduce

the impact to the existing historic bridge, it will not mitigate the impact to a less than significant level; therefore, impacts would remain **Significant and Unavoidable**.

IMPACT MAN-2: The Project does not have impacts that are individually limited, but cumulatively considerable.

The Project consists of replacing the existing bridge for safety purposes. There are no other planned projects in the vicinity that would contribute to cumulative impacts to environmental resources. There is no significant connection between the Project, and any past, current, or future projects. With the exception of the demolition of the existing Waldo Road Bridge, all potential significant impacts would be addressed with avoidance, minimization, and mitigation measures and would not result in cumulatively considerable impacts. Although demolition to the existing Waldo Road Bridge is a significant and unavoidable impact, it does not constitute a cumulative impact since the Project would have no potential to directly or indirectly impact other historic structures in the region. Impacts related to the proposed Project 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.

Due to the nature and size of the proposed Project, no substantial adverse effects on humans are expected. The Project would not emit substantial amounts of air pollutants, would not expose residents to flooding. The two potential human health effects identified as a result of Project implementation were minor construction-related impacts which include dust that could affect the few scattered residences near the Project site and the possible presence of MEC within the Project area. Impacts would be **Less than Significant with Mitigation** with implementation of **AQ-1**, **AQ-2**, and **HAZ-1**.

3.16.3 Avoidance, Minimization, and/or Mitigation Measures

Mitigation measures under analysis of each environmental resource within this EIR would reduce impacts for the proposed Project to less than significant:

- Measures AQ-1 through AQ-4 (Air Quality)
- Measures BIO-1 through BIO-42 (Biological Resources and Tribal Cultural Resources)
- Measures CUL-1(a-c) and CUL-2(a-i) (Cultural Resources)
- Measures HAZ-1 through HAZ-4 (Hazards and Hazardous Materials)
- Measures WQ-1 (Hydrology and Water Quality)
- Measure NOI-1 (Noise)
- Measures TCR-1 through TCR-4 (Tribal Cultural Resources)

The list of measures is also within Table 14: Mitigation Monitoring and Reporting Program.

4 PROJECT ALTERNATIVES

4.1 OVERVIEW

This chapter describes alternatives to the proposed Project that were considered but rejected for further consideration. This chapter also compares the environmental impacts of those alternatives.

The principles used to guide selection of the alternatives analyzed in this EIR are provided by section 15126.6 of the CEQA Guidelines, which specifies that an EIR must do all of the following:

- Describe a reasonable range of potentially feasible alternatives to the Project that could attain most of the basic objectives of the Project
- Consider alternatives that could reduce or eliminate any significant environmental impacts of the proposed Project, including alternatives that may be costlier or could otherwise impede the Project's objectives
- Evaluate the comparative merits of the alternatives

The focus and definition of the alternatives are governed by the "rule of reason," in accordance with section 15126.6(f) of the CEQA Guidelines. That is, the range of alternatives presented in this Draft EIR must permit a reasoned choice by the County. The CEQA Guidelines require that an EIR evaluate at least one "No-Project Alternative," evaluate a reasonable range of alternatives to the Project, identify alternatives that were considered during the scoping process but were eliminated from detailed consideration, and identify the "environmentally superior alternative."

The evaluation of alternatives is conducted in less detail than for the proposed Project. Consistent with section 15126.6(d) of the CEQA Guidelines, the information provided in this Draft EIR about each alternative is sufficient to allow for a meaningful evaluation, analysis, and comparison of the alternatives with the proposed Project.

4.2 ALTERNATIVES CONSIDERED AND SCREENING CRITERIA

This section describes the development of a reasonable range of alternatives to the proposed Project, the method used to screen the alternatives, and the alternatives considered but eliminated from detailed consideration in this document.

4.2.1 Development of Reasonable Range of Alternatives

CEQA requires that an EIR describe and evaluate a range of reasonable alternatives to a Project or to the location of a Project that would feasibly attain most of the basic Project objectives and avoid or substantially lessen significant Project impacts (CEQA Guidelines section 15126.6). The alternatives to the proposed Project considered in this Draft EIR were developed based on information gathered during the development of the proposed Project and during the EIR scoping process. In addition, a No-Project alternative must be considered in the EIR (CEQA Guidelines section 15126.6(e)(2).

In developing the proposed Project, the County has considered a range of potential actions that could meet the Project objectives.

4.2.2 Methods Used to Screen Alternatives

Potential alternatives were screened based on their ability to feasibly attain most of the basic Project objectives and reduce or eliminate any significant environmental impacts of the proposed Project.

- **Meeting Project Objectives** – The Project objectives are listed in the Project Description. The CEQA Guidelines state that alternatives must feasibly attain most of the basic objectives of the Project (CEQA Guidelines section 15126.6). Alternatives that did not meet the majority of the objectives were screened out and not carried forward for further evaluation in the EIR.
- **Feasibility** – Alternatives that are not "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors," (per Public Resource Code Section 21061.1), were not carried forward for further evaluation in the EIR.
- **Avoiding or lessening any potentially adverse environmental effect of the Proposed Project** – Consistent with the CEQA Guidelines (section 15126.6), alternatives should avoid or substantially lessen one or more of the significant environmental effects of the proposed Project. Alternatives that would not lessen or avoid a potentially significant environmental impact, were not carried forward for detailed evaluation in the EIR.

4.2.3 Alternatives Considered But Eliminated From Further Discussion

The alternatives described below were eliminated from further consideration due to engineering infeasibility, failure to meet Project objectives, substantial environmental impacts, and cost (see **Figure 9** at the end of this discussion**)**.

Alternative 1: Rehabilitation of Existing Bridge to Maintain for Vehicular Use

The County investigated rehabilitation of the existing bridge for continued use as both a pedestrian and vehicular crossing of Dry Creek, to maintain the visual character of the bridge, which is eligible for listing on the National Register of Historic Places and California Register of Historical Resources. Rehabilitation would entail removal and replacement in-kind of the timber bridge deck, timber stringers, timber girders, repainting, and minor repairs, consisting mainly of tightening the non-original cable members. Replacement in-kind of the timber components on other bridge rehabilitation projects throughout the state of California have resulted in issues with cracking in the timbers, requiring substantial repair and anticipated on-going regular inspections to ensure further degradation does not continue to jeopardize the structure. As a result, utilizing components as part of the rehabilitation for the Project would require more repair and maintenance than is expected for a new structure. Such frequent maintenance would also result in more frequent impacts to biological/riparian habitats within the Spenceville Wildlife Area.

Additionally, after conducting a hazardous waste test of the existing paint on the bridge, lead paint was discovered. As such, an overcoat paint system for the existing bridge could not be pursued as current State and Federal health and safety standards require complete removal and disposal of hazardous lead paint. Proper removal and disposal of the hazardous lead paint would require an extensive and cost prohibitive lead compliance plan.

Rehabilitation of the bridge would also not allow for a safer pedestrian and vehicular crossing. As currently designed, the narrow width restricts its use to a single vehicle. Due to the existing substandard curves on both bridge approaches, there is insufficient sight distance to determine whether another vehicle is approaching the bridge until the vehicle is traversing over the bridge abutments. This results in vehicles reversing direction within the roadway to allow the other vehicle to advance and clear the bridge. The narrow width of the bridge also presents a hazard to the larger emergency vehicles, such as fire trucks and ambulances. The existing width also is insufficient to allow pedestrians to cross safely when a vehicle is present. Further, the uneven surface caused by the timber deck and runner components provides another pedestrian access barrier as it does not meet Americans with Disability Act (ADA) standards.

Due to the shorter anticipated life span, unreliable nature of timber, the associated maintenance issues, environmental impacts, extensive and cost prohibitive lead compliance plan, and existing substandard curves which do not meet current safety and design standards, rehabilitation of the existing bridge for continued vehicular use was eliminated from further consideration as a viable design option.

Impacts Identified as Being the Same or Similar to the Proposed Project

Air quality; energy; geology and soils; greenhouse gas; hazards and hazardous materials; hydrology and water quality; land use and planning; noise; population and housing; recreation; and utilities. Alternative 1 would result in similar impacts related to the above resources as with the proposed Project due to the similar scale of this alternative.

Impacts Identified as Less Severe than the Proposed Project

Under Alternative 1, impacts to the resources listed below would be less than the proposed Project. However, Alternative 1 is not feasible due to cost and would not meet Project objectives.

Aesthetics: Under Alternative 1 the existing bridge would not be demolished, preserving a component of the visual character of the Project area.

Cultural Resources: Under Alternative 1 the existing bridge, determined eligible for the National Register of Historic Places and the California Register of Historical Resources, would not be demolished. This would not physically destroy the historic property and would not result in a significant impact. The cultural site, CA-YUB-1924/H would not be impacted, preserving the artifacts and overall setting of the resource.

Tribal Cultural Resources: Alternative 1 would result in no or minimal ground disturbance, reducing the potential to impact the TCR CA-YUB-1924/H.

Impacts Identified as More Severe than the Proposed Project

Biological Resources: As mentioned above, utilizing timber components as replacement components for the Project would require more repair and maintenance than is expected for a new structure. Such frequent maintenance would also result in more frequent impacts to biological/riparian habitats within the Spenceville Wildlife Area.

Public Services, Transportation/Traffic, and Wildfire: As mentioned above, rehabilitation of the bridge would also not allow for a safer pedestrian and vehicular crossing. As currently designed, the narrow width restricts its use to a single vehicle. Due to the existing substandard curves on both bridge approaches, there is insufficient sight distance to determine whether another vehicle is approaching the bridge until the vehicle is traversing over the bridge abutments. This results in vehicles reversing direction within the roadway to allow the other vehicle to advance and clear the bridge. The narrow width of the bridge also presents a hazard to the larger emergency vehicles, such as fire trucks and ambulances, and would impact access and response times. The existing width also is insufficient to allow pedestrians to cross safely when a vehicle is present.

Alternative 2: Rehabilitation of Existing Bridge to Maintain for Pedestrian Use

The County investigated rehabilitation of the existing bridge as a pedestrian facility that provided a separated and protected crossing of Dry Creek. A new bridge meeting current safety standard would be constructed upstream to provide vehicular access. This alternative would maintain the

visual character of the bridge, which is eligible for listing on the National Register of Historic Places.

Rehabilitation would entail removal and replacement in-kind of the timber bridge deck, timber stringers, timber girders, repainting, and minor repairs, consisting mainly of tightening the non-original cable members. After conducting a hazardous waste test of the existing paint, lead paint was discovered. As such, an overcoat paint system for the existing bridge could not be pursued as current State and Federal health and safety standards require complete removal and disposal of hazardous lead paint.

Replacement in-kind of the timber components on other bridge rehabilitation projects throughout the state of California have resulted in issues with cracking in the timbers, requiring substantial repair and anticipated on-going regular inspections to ensure further degradation does not continue to jeopardize the structure. As a result, utilizing timber components as replacement components for the Project would require more repair and maintenance than is expected for a new structure. Such frequent maintenance would also result in more frequent impacts to biological/riparian habitats within the Spenceville Wildlife Area. Further, the uneven surface caused by the timber deck and runner components does not meet Americans with Disability Act (ADA) standards. As the bridge would be rehabilitated for pedestrian use, it would need to meet ADA standards.

In addition to these issues, the County would also need to construct a new bridge, either upstream or downstream of the existing bridge to continue providing vehicular access across Dry Creek. Due to the costs associated with constructing a new bridge, the cost prohibitive lead compliance plan required as part of the bridge rehabilitation, and the noncompliance with ADA standards, and rehabilitation of the existing bridge for continued pedestrian use was eliminated from further consideration as a viable design option.

Impacts Identified as Being the Same or Similar to the Proposed Project

Air quality; geology and soils; greenhouse gas; hazards and hazardous materials; hydrology and water quality; land use and planning; noise; population and housing; public services; recreation; transportation/ traffic; tribal cultural resources; utilities; and wildfire. Alternative 2 would result in similar impacts related to the above resources as with the proposed Project due to the similar scale and location of this alternative.

Impacts Identified as Less Severe than the Proposed Project

Alternative 2 meets Project objectives and impacts to the resources listed below would be less than the proposed Project. However, Alternative 2 is not feasible due to cost.

Aesthetics: Under Alternative 2 the existing bridge would not be demolished, preserving a component of the visual character of the Project area.

Cultural resources: Under Alternative 2 the existing bridge, determined eligible for the National Register of Historic Places and the California Register of Historical Resources, would not be demolished. This would not physically destroy the historic property and would not result in a significant impact.

Impacts Identified as More Severe than the Proposed Project

Biological Resources: As mentioned above, utilizing timber components as replacement components for the Project would require more repair and maintenance than is expected for a

new structure. Such frequent maintenance would also result in more frequent impacts to biological/riparian habitats within the Spenceville Wildlife Area.

Alternative 3: Preservation – New Bridge Ownership and/or Location

The anticipated costs associated with proper removal and disposal of the hazardous lead paint, continued repair and maintenance of the existing bridge, and the costs required to construct a new bridge are cost prohibitive for the County. Due to this issue, the County reached out to various agencies and groups who might be interested in assuming ownership and maintenance of the bridge or who might know of another group/agency who could adopt and move the bridge. This would allow the bridge to be preserved in place or in a different location while still also allowing the County to construct a replacement bridge for both vehicular and pedestrian travel.

Outreach included CDFW, as the existing bridge is within their Spenceville Wildlife Area, the California Historical Society, and the Historic Bridge Foundation. The Historic Bridge Foundation recommended listing the bridge for sale, while the California Historical Society stated that they could provide no assistance regarding preservation. The California Department of Fish and Wildlife initially indicated an interest in taking ownership of the bridge; however, after reviewing the anticipated costs to keep the bridge maintained for pedestrian use, CDFW stated that they are unable to assume ownership and maintenance of the bridge.

As no other approached agency or organization can assume ownership/maintenance of the existing bridge, preservation of the existing bridge through adoption or sale was eliminated from further consideration as a viable design option.

Impacts Identified as Being the Same or Similar to the Proposed Project

Air quality; energy; geology and soils; greenhouse gas; hazards and hazardous materials; hydrology and water quality; land use and planning; noise; population and housing; public services; recreation; transportation/ traffic; tribal cultural resources; utilities; and wildfire. Alternative 3 would result in similar impacts related to the above resources compared to the proposed Project due to the scale of this alternative. Impacts to aesthetics would be similar to the proposed Project if the bridge were to be moved to another location.

Impacts Identified as Less Severe than the Proposed Project

Alternative 3 meets Project objectives and impacts to the resources listed below would be less than the proposed Project. However, Alternative 3 is not feasible since no other organization would assume ownership/maintenance.

Aesthetics: Under Alternative 3, if the existing bridge would be maintained by new ownership, the existing bridge would remain in place, preserving a component of the visual character of the Project area.

Cultural resources: Under Alternative 3 the existing bridge, determined eligible for the National Register of Historic Places and the California Register of Historical Resources, would assume new ownership and would either be maintained or be moved to a new location. This would not physically destroy the historic property and would not result in a significant impact. However, it should be noted that impacts to the cultural site, CA-YUB-1924/H, would be similar to the Build Alternative as Alternative 3 would still construct a new bridge which would impact cultural site CA-YUB-1924/H. Further, if the existing bridge were relocated, there is potential for impacts to previously unknown cultural resources.

Impacts Identified as More Severe than the Proposed Project

Biological Resources: If preservation in place would occur under new ownership, utilizing timber components as replacement components for the Project would require more repair and maintenance than is expected for a new structure. Such frequent maintenance would also result in more frequent impacts to biological/riparian habitats within the Spenceville Wildlife Area. Additionally, if the existing bridge would be preserved and moved to another location under new ownership, additional impacts to sensitive habitats and special status species could occur depending on the location chosen.

Tribal Cultural Resources: While Alternative 3 would have similar impacts as the Build Alternative to TCR CA-YUB-1924/H due to the construction of a new bridge, there is also potential for impacts to previously unknown Tribal Cultural Resources if the existing bridge is relocated to a new area.

4.2.4 No Build Alternative

CEQA Guidelines section 15126.6(e) requires consideration of a "No Project" alternative. The purpose of this alternative is to allow the decision makers to compare the impacts of the proposed Project with the impacts of not approving the Project. Under the No Build alternative, the existing bridge would not be rehabilitated or replaced. The existing bridge would continue to be classified as structurally deficient. This would result in continued deterioration of the bridge which would likely result in an adverse effect/significant impact under both Section 106 of the National Historic Preservation Act and CEQA. Further, the bridge would continue to have hazardous lead paint and fail to meet current applicable County, America Association of State Highway and Transportation Officials, and Caltrans design standards.

Impacts Identified as Being the Same or Similar to the Proposed Project

Cultural Resources: The No Build Alternative would result in similar impacts related to cultural resources as with the proposed Project since the bridge would further deteriorate and would be at risk of closure if it were not rehabilitated or replaced. However, it should be noted the No Build Alternative would not impact cultural site, CA-YUB-1924/H, preserving the artifacts and overall setting of the resource.

Impacts Identified as Less Severe than the Proposed Project

Aesthetics; air quality; biological resources; energy; geology and soils; greenhouse gas; hydrology and water quality; land use and planning; noise; population and housing; recreation; tribal cultural resources; and utilities. Under the No Build Alternative construction for the proposed Project would not occur and the corridor would remain in its existing conditions. Although no impacts would occur to any of the resources listed above, the No Build Alternative fails to meet all of the basic Project objectives.

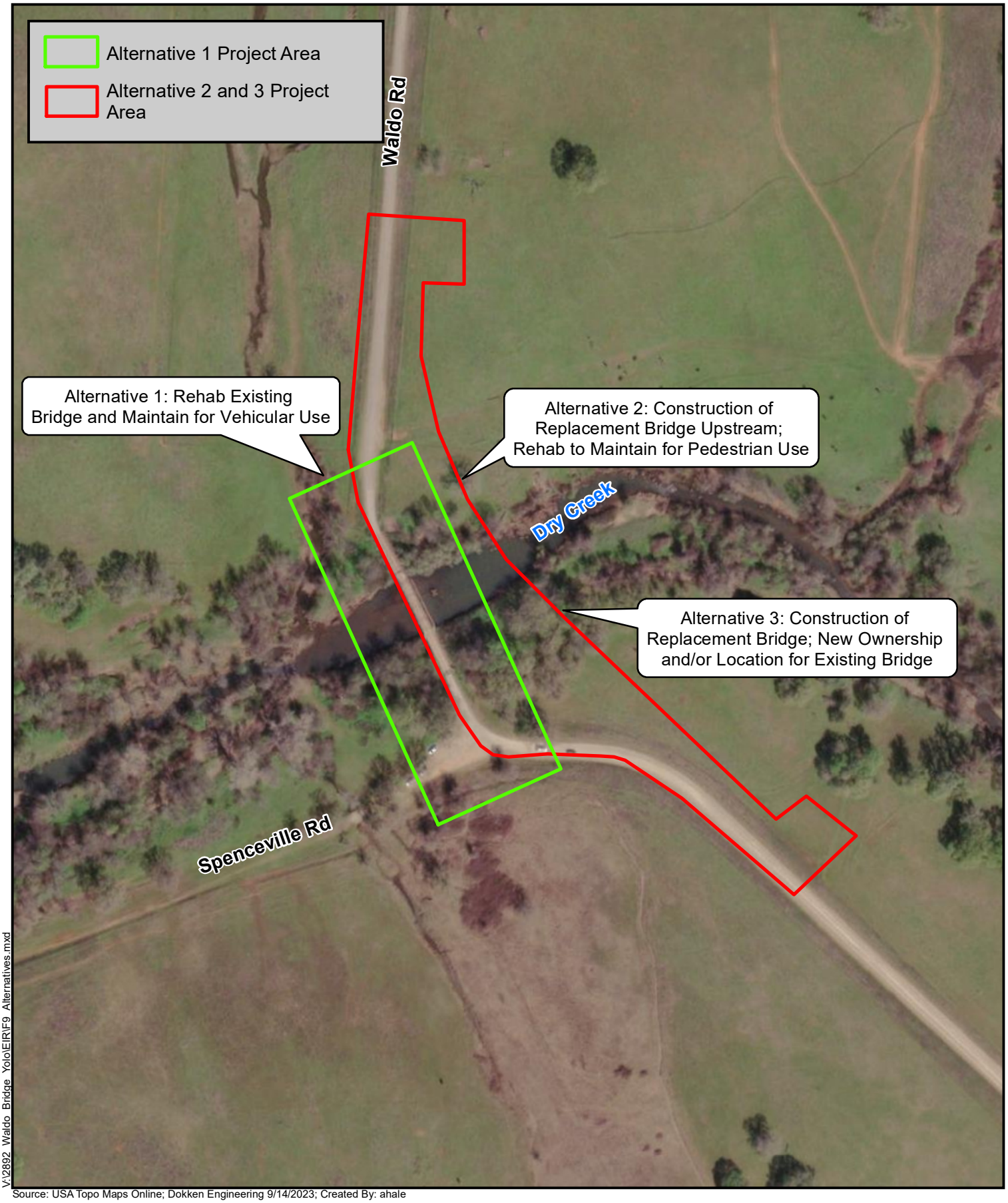
Impacts Identified as More Severe than the Proposed Project

Hazards & Hazardous Materials: The current bridge is a significant hazard to emergency response time and access, if the proposed bridge is not constructed. Additionally, the bridge would continue to have hazardous lead paint, which could lead to an accident involving release of hazardous materials into the environment.

Public Services: 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.

Transportation: 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.

Wildfire: 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.



V:\2892_Waldo_Bridge_Yolo\EIR\F9_Alternatives.mxd

Source: USA Topo Maps Online; Dokken Engineering 9/14/2023; Created By: ahale

1 inch = 200 feet

0 100 200 300 400 Feet

Figure 9
Alternative Analysis
Waldo Road Bridge over Dry Creek Replacement Project
BRLO-5916(092)
Yuba County California

4.3 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires identification of the environmental superior alternative; that is, the alternative that has the least significant impacts on the environment.

As presented in Chapter 3.0, implementation of the proposed Project would result in significant and unavoidable impacts to cultural resources due to the bridge demolition. As discussed in section 4.2.3, Alternatives 1, 2 and 3 either have the potential to result greater environmental impacts than the proposed Project or are infeasible due to cost.

Of the alternatives discussed in Chapter 4.2, the No Build alternative has the least significant impacts on the environment and would be considered the environmentally superior alternative; however, this alternative does not meet the Project objectives.

Therefore, because the proposed Project would result in less environmental impacts than the other alternatives, and meets all of the basic Project objectives, it is the environmentally superior alternative. **Table 10** presents a summary of how each alternative compares to the proposed Project with respect to the impacts, the ability to meet Project objectives, and economic viability.

Table 10: Comparison between Alternatives

	Proposed Project	**No Project Alternative**	**Alternative 1. Rehabilitation**	**Alternative 2. Rehabilitation and Bridge Replacement**	**Alternative 3. Preservation – New Bridge Ownership and/or Location**
Environmental Impacts	**Potentially Significant Impact**	**Potentially Significant Impact**	**Less Than Significant With Mitigation**	**Less Than Significant With Mitigation**	**Less Than Significant With Mitigation**
Meets Project Objectives:	Yes	No	No	Yes	Yes
Enhance safety by providing a crossing sufficient for both pedestrian and vehicular use, including emergency vehicles.	Yes	No	No	Yes	Yes
Provide a transportation facility consistent with County and Caltrans Standards, as well as local and regional plans	Yes	No	No	Yes	Yes
Economic Viability:	Yes	Yes	No	No	No

5 CEQA EVALUATION AND CONSIDERATIONS

5.1 CUMULATIVE IMPACTS

The State 2023 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.

The Project is not expected to have cumulative environmental impacts for the following reasons:

1. The Project area and vicinity are within the Spenceville Wildlife Area, a designated recreational area. Furthermore, the Project area and vicinity is designated as Natural Resources in the Land Use designation map and is further designated as Open Space Public Lands. According to the Yuba County General Plan Open Space Designation Chart, Public Lands are to "To remain under public ownership and provide hazard protection, habitat, water supply protection, recreation, and other important public functions. Many of these areas were acquired to provide for habitat preservation. Other areas provide habitat value, but are owned and managed for other purposes, such as timber harvest, recreation, or other resource-oriented use. The County anticipates that Public Lands would continue to provide habitat, aesthetic, recreational, resource extraction, and other values through buildout of this General Plan."

   The Project area and vicinity are under protection due to its recreational function to the public; therefore, new development projects within the vicinity, which could contribute to a cumulative environmental impact when considered in conjunction with the Waldo Road Bridge Replacement Project, are not anticipated.

2. Environmental impacts to all resources are either less than significant or less than significant with mitigation incorporated, with the exception of destruction of the historic Waldo Road Bridge structure. Mitigation measures have been identified by Yuba County and through coordination with resource agencies to ensure Project specific impacts are mitigated on both an individual level, as well as a cumulative level. Demolition of a historic structure is a significant and unavoidable impact; however, it does not constitute a cumulative impact since the Project would have no potential to directly or indirectly impact other historic structures in the region.
3. The scope of this Project is to replace a structurally deficient bridge and would result in impacts to natural habitat which are to be mitigated. No new development would occur and no significant cumulative loss of habitat would occur with this Project when considered along with other development Project in the region.

4. Replacement of the structure will prevent a future road closure due to bridge failure, which would have long term impacts to traffic and emergency response until replacement was completed.

5.2 GROWTH-INDUCING IMPACTS

CEQA (Guidelines (section 15126.2(d)) requires that an EIR evaluate the growth inducing impact of a proposed action. The Guidelines describe the required growth inducement analysis as follows:

Discuss the ways in which the proposed Project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this definition are public works Projects, which would remove obstacles to population growth, would tax community service facilities, or encourage or facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

A Project can have the potential for direct and/or indirect growth inducement. Direct growth inducement would result if a Project involved construction of new housing which would facilitate new population in an area. Indirect growth inducement or secondary growth-inducement potential would be present if it would establish substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises), or if it would involve a substantial construction effort with substantial long-term employment opportunities which could indirectly stimulate the need for additional housing and services to support the new employment demand.

Similarly, a Project could indirectly induce growth if it would remove a physical obstacle to additional growth and development, such as removing a constraint or adding a required public service. Examples of removing a physical obstacle would include construction of a new roadway into an undeveloped area or construction of a wastewater treatment plant with sufficient capacity to serve additional new development. Construction of these types of infrastructure projects cannot be considered isolated from the immediate development that they facilitate and serve. Projects that physically remove obstacles to growth, or projects that indirectly induce growth, are those that may provide a catalyst for future unrelated development in the area. The growth inducing potential of a project could also be considered significant if it fosters growth in excess of what is assumed in the local master plans and land use plans, or in projections made by regional planning agencies.

5.2.1 Direct Growth Inducement

The proposed Project would not construct new housing. The proposed Project aims to improve vehicular and pedestrian access across Dry Creek. No impacts would occur to the surrounding communities. Rather, the Project would result in improved accessibility for surrounding communities. The proposed Project would also not create permanent employment. The proposed Project is consistent with the County General Plan as the proposed Project will continue to be zoned for Natural Resources, and the Project would not change the zoning designation of adjacent areas.

5.2.2 Indirect Growth Inducement

The proposed Project would not construct businesses, roadways, create new connections to undeveloped land, 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 less than

one year 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

CEQA Guidelines section 15126.2(c) requires an EIR to "describe any significant impacts, including those which can be mitigated but not reduced to a level of insignificance. Where there are impacts that cannot be alleviated without imposing an alternative design, their implications and the reasons why the Project is being proposed, notwithstanding their effect, should be described."

Chapter 3.0 of this EIR provides a description of the potential environmental impacts of the proposed Project and recommends mitigation measures to reduce impacts to a less than significant level, where possible. After implementation of the recommended mitigation measures, all of the potentially significant impacts associated with the proposed Project would be reduced to a less than significant level, aside from cultural resources. To reduce the significant impacts, an MOA, prepared by the County and approved by Caltrans and the SHPO, contains mitigation measures **CUL-1a through CUL-1c** which includes recording and documenting the existing bridge to the standards of the national Historic American Engineering Record (HAER) and preparing interpretation materials regarding the existing bridge. While this will reduce the Project's impact, it will not mitigate the impact to a less than significant level; therefore, impacts would remain significant and unavoidable.

As described in Chapter 4 Project Alternatives, the proposed Project is the environmentally superior alternative since other alternatives either do not meet Project objectives or are infeasible due to cost.

5.4 Significant Irreversible Changes

State CEQA Guidelines Section 15126.2(d) states that, "Uses of nonrenewable resources 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 as the existing bridge is already being utilized to cross Dry Creek and the Project is not anticipated to increase daily traffic as the bridge widening would enable the bridge to finally match the existing capacity of Waldo Road. Maintenance would be required on the new bridge, but not to the extent required for the existing bridge which requires annual maintenance due to its deterioration. Therefore, no significant irreversible changes would occur.

State CEQA Guidelines Section 15126.2(d) also states that, "irreversible damage can result from environmental accidents associated with the project." Construction of the proposed Project has the potential to result in accidental release of hazardous materials which may lead to irreversible damage. Although there is a small potential for this to occur, as stated in Chapter 3.8, avoidance and minimization measures will be implemented to further reduce the likelihood of this happening.

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." This 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.

Table 11: Mitigation Monitoring and Reporting Program

Mitigation Measure	Reporting Milestone	Reporting / Responsible Party	VERIFICATION OF COMPLIANCE	
			Initials	Date
Air Quality				
AQ-1: The most current FRAQMD Best Available Mitigation Measures for Construction Phase shall be incorporated as part of the project.	**During Construction**	**Construction Contractor**		
AQ-2: To mitigate impacts of construction vehicle and equipment emissions during construction, the following Mitigation Measures shall be incorporated as part of the project and included in all construction bid documents: • Water inactive construction sites and exposed stockpile sites at least twice daily. • Pursuant to California Vehicle Code, all trucks hauling soil and other loose material to and from the construction site shall be covered or should maintain at least 6 inches of freeboard (i.e. minimum vertical distance between top of load and the trailer). • Any topsoil that is removed for the construction operation shall be stored on-site in piles not to exceed 4 feet in height to allow development of microorganisms prior to replacement of soil in the construction area. These topsoil piles shall be clearly marked and flagged. Topsoil piles that will not be immediately returned to use shall be revegetated with a non-persistent erosion control mixture. • Soil piles for backfill shall be marked and flagged separately from native topsoil stockpiles. These soil piles shall also be surrounded by filt fencing, straw wattles, or other sediment barriers or covered unless they are to be immediately used. • Equipment or manual watering shall be conducted on all stockpiles, dirt/gravel roads, and exposed or disturbed soil surfaces, as necessary, to reduce airborne dust.	**During Construction**	**Construction Contractor**		
AQ-3: The on-road heavy-duty truck fleet used for the Project will be limited to vehicles of model year 2010 or newer.	**During Construction**	**Construction Contractor**		

AQ-4:	All off-road equipment used for the Project is required to meet CARB Tier 4 Standard.	**During Construction**	**Construction Contractor**		
Biological Resources					
BIO-1:	All trees associated with riparian and oak woodland habitat that are 4 inches diameter breast height (DBH) and larger will be mitigated for at a 3:1 ratio onsite. Should it be determined that onsite mitigation is infeasible, an offsite mitigation option or other approved methods would be considered during the permitting phase of the Project.	**PSE**	**County**		
BIO-2:	Immediately prior to the start of work, a qualified biologist shall conduct a survey to determine the presence or absence of northwestern pond turtles. If northwestern pond turtles are observed where they could be potentially impacted by Project activities, as determined by the on-site biologist, then work shall not be conducted within 100 feet of the sighting until the turtle(s) have left the Project site or a qualified biologist has relocated the turtle(s) immediately outside of the Project site.	**Prior to and During Construction**	**Project Biologist**		
BIO-3:	If turtle eggs are uncovered during construction activities, then all work shall stop within a 25-foot radius of the nest and the qualified biologist should be notified immediately. The 25-foot buffer should be marked with identifiable markers that do not consist of fencing or materials that my block the migration of young turtles to the water or attract predators to the nest site. No work will be allowed within the 25-foot buffer until the turtle eggs have hatched or the nest fails.	**During Construction**	**Project Biologist**		
BIO-4:	All portions of the Project site that could result in inadvertently trapping turtles, such as open pits, trenches, and de-watered areas will be covered and/or exclusion fencing will be installed to prevent turtles from entering these areas.	**During Construction**	**Construction Contractor**		
BIO-5:	Staging areas as well as fueling and maintenance activities shall be a minimum of 250 feet from riparian or aquatic habitats. The Project proponent shall prepare a spill prevention and clean-up plan.	**During Construction**	**Construction Contractor**		
BIO-6:	The Project shall administer BMPs to protect water quality and control erosion.	**During Construction**	**Construction Contractor**		
BIO-7:	All construction activities conducted in the riparian area along Dry Creek will be kept at a minimum to minimize vegetation removal and pruning.	**During**	**Construction**		

	Construction	**Contractor**		
BIO-8: All riparian habitat that is to be removed for the construction of the roadway realignment and new bridge will be mitigated for at a 3:1 ratio onsite. Should it be determined that onsite mitigation is infeasible, an offsite mitigation option or other approved methods would be considered during the permitting phase of the Project.	**PSE**	**County**		
BIO-9: Two nighttime preconstruction surveys will be conducted during or immediately following separate precipitation events between October and May when ponded water is present.	**Prior to Construction**	**Project Biologist**		
BIO-10: Should any life stages of western spadefoot be found within the Project boundary, CDFW will be consulted prior to the initiation of Project activities to determine appropriate avoidance and minimization efforts.	**Prior to Construction**	**Project Biologist**		
BIO-11: A preconstruction survey shall be conducted within 14 days of the start of Project activities.	**During Construction**	**Project Biologist**		
BIO-12: If there is a lapse between Project activities of more than 14 days, an additional survey shall be conducted within 24 hours prior to ground disturbance.	**During Construction**	**Project Biologist**		
BIO-13: If a burrowing owl or its burrow is observed within the Project limits or within 500 feet of the Project limits, work will stop within 500 feet of the observation, and the GE Project Manager and the Resident Engineer shall be contacted.	**During Construction**	**Project Biologist and Contractor**		
BIO-14: Additionally, if a burrowing owl or its burrow is observed on site, the Contractor shall implement avoidance and minimization measures.	**During Construction**	**Project Biologist and Contractor**		
BIO-15: Begin construction activities outside of the avian breeding season (March 1 – August 31) to avoid potential impacts to nesting California black rails and deter California black rails from nesting within close proximity of the Project site.	**During Construction**	**Construction Contractor**		
BIO-16: If Project activities cannot begin outside of the avian breeding season (March 1 – August 31) then a California black rail survey will be conducted employing the protocol used in the Richmond *et al.* 2008 *Distribution of California Black Rails in the Sierra Nevada Foothills* to determine presence or absence of California black rails within the BSA. Survey(s) must include the following protocol measures:	**Prior to and During Construction**	**Project Biologist**		

• A qualified biologist, with working knowledge of California black rail protocol-level surveys, will conduct three California black rail surveys using the CDFW-approved Richmond *et al.* (2008) call playback survey protocol within suitable habitat areas in the BSA (i.e., Albion Creek and Vineyard Creek). Surveys will be conducted a minimum of 2 weeks apart OR a minimum of 1 week apart if construction is to begin within 7 days of the last survey. • Avoid conducting surveys during environmental conditions that may affect the ability to hear or see California black rails (i.e., heavy rain, dense fog, winds > 20 mph). • If California black rails are detected within or within close proximity of the BSA, then the County will be notified within two working days of the observation and will consult with CDFW for further guidance. • If, for any reason, construction activities are stopped for 15 days or more within the avian breeding season, then one additional California black rail survey will be conducted prior to reinitiating construction activities.				
BIO-17: During construction activities, all trash shall be removed from the worksite and disposed of regularly. Following construction, all trash and construction debris shall be removed from work areas.	**During Construction**	**Construction Contractor**		
BIO-18: All construction equipment shall stay within designated areas and within designated construction traffic routes to avoid any unnecessary vegetation and/or ground disturbances. When construction equipment or construction related vehicles are in route, they shall remain at a low speed limit to minimize dust.	**During Construction**	**Construction Contractor**		
BIO-19: There shall be no staging of construction equipment outside of the Project Boundary.	**During Construction**	**Construction Contractor**		
BIO-20: All construction personnel shall remain in the limits of the Project Boundary and will avoid wetland areas around Albion Creek and Vineyard Creek.	**During Construction**	**Construction Contractor**		
BIO-21: All fueling and/or equipment maintenance shall occur 250 feet from all water bodies and riparian areas, except for stationary equipment, and a spill prevention plan shall be approved by regulatory agencies.	**During Construction**	**Construction Contractor**		

BIO-22: Begin construction activities prior to the avian breeding season (March 1 – August 31) to avoid potential impacts to nesting Swainson's hawk and to deter Swainson's hawks from nesting within a quarter-mile of the Project Boundary.	**During Construction**	**Construction Contractor**		
BIO-23: If Project activities cannot begin prior to the avian breeding season (March 1 – August 31), then a Swainson's hawk pre-construction survey will be conducted to determine presence or absence of nesting Swainson's hawks within a quarter-mile of the Project Boundary. A pre-construction survey will be conducted within 7 days prior to ground disturbing activities. Survey(s) must include the following protocol measures: • Conduct a Swainson's hawk pre-construction survey 7 days prior to construction activities within a quarter-mile radius of the Project Boundary. • If a Swainson's hawk nest is observed within a quarter-mile radius of the Project Boundary, the County will be notified and will then consult with CDFW for further guidance. • If construction activities stop for 15 days or longer, another Swainson's hawk survey will be conducted within 7 days prior to the continuation of construction activities.	**Prior to Construction**	**Project Biologist**		
BIO-24: Project activities, including site grubbing and vegetation removal, within the BSA shall be initiated outside of the bird nesting season (March 1 – August 31).	**During Construction**	**Construction Contractor**		
BIO-25: If Project activities cannot be initiated outside of the bird nesting season, or if there is a lapse in construction of 15 days or longer during the bird nesting season, then the following will occur: • A qualified biologist will conduct a pre-construction survey within 7 days prior to starting work. • If an active tricolored blackbird nest (i.e. with egg(s) or young) is observed within 200 feet of the Project Boundary during the pre-construction survey, then a species protection buffer will be established. The species protection buffer will be defined by the qualified biologist in consultation with CDFW. Construction activity shall be prohibited within the buffer zones until the young have fledged or the nest fails. Nests shall be monitored twice per week by a qualified biologist and a report submitted to the County.	**Prior to Construction**	**Project Biologist**		

BIO-26: If Project activities cannot be initiated outside of the bird nesting season, or if there is a lapse in construction of 15 days or longer during the bird nesting season, then the following will occur: • A qualified biologist will conduct a pre-construction survey within 7 days prior to starting work. • If an active grasshopper sparrow nest (i.e. with egg(s) or young) is observed within 200 feet of the Project Boundary during the pre-construction survey, then a species protection buffer will be established. The species protection buffer will be defined by the qualified biologist in consultation with CDFW. Construction activity shall be prohibited within the buffer zones until the young have fledged or the nest fails. Nests shall be monitored twice per week by a qualified biologist and a report submitted to the County.	**Prior to and During Construction**	**Project Biologist**		
BIO-27: If Project activities cannot be initiated outside of the bird nesting season, or if there is a lapse in construction of 15 days or longer during the bird nesting season, then the following will occur: • A qualified biologist will conduct a pre-construction survey within 7 days prior to starting work. • If an active long-eared owl nest (i.e. with egg(s) or young) is observed within 200 feet of the Project Boundary during the pre-construction survey, then a species protection buffer will be established. The species protection buffer will be defined by the qualified biologist in consultation with CDFW. Construction activity shall be prohibited within the buffer zones until the young have fledged or the nest fails. Nests shall be monitored twice per week by a qualified biologist and a report submitted to the County.	**Prior to and During Construction**	**Project Biologist**		
BIO-28: If Project activities cannot be initiated outside of the bird nesting season, or if there is a lapse in construction of 15 days or longer during the bird nesting season, then the following will occur: • A qualified biologist will conduct a pre-construction survey within 7 days prior to starting work. • If an active northern harrier nest (i.e. with egg(s) or young) is observed within 200 feet of the Project Boundary during the pre-construction survey, then a species protection buffer will be established. The species protection buffer will be defined by the qualified biologist in consultation with CDFW. Construction activity shall be prohibited within the buffer zones until the young have fledged	**Prior to and During Construction**	**Project Biologist**		

or the nest fails. Nests shall be monitored twice per week by a qualified biologist and a report submitted to the County.				
BIO-29: If Project activities cannot be initiated outside of the bird nesting season, or if there is a lapse in construction of 15 days or longer during the bird nesting season, then the following will occur: • A qualified biologist will conduct a pre-construction survey within 7 days prior to starting work. • If an active Modesto population song sparrow nest (i.e. with egg(s) or young) is observed within 200 feet of the Project Boundary during the preconstruction survey, then a species protection buffer will be established. The species protection buffer will be defined by the qualified biologist in consultation with CDFW. Construction activity shall be prohibited within the buffer zones until the young have fledged or the nest fails. Nests shall be monitored twice per week by a qualified biologist and a report submitted to the County.	**Prior to and During Construction**	**Project Biologist**		
BIO-30: If Project activities cannot be initiated outside of the bird nesting season, or if there is a lapse in construction of 15 days or longer during the bird nesting season, then the following will occur: • A qualified biologist will conduct a pre-construction survey within 7 days prior to starting work. • If an active yellow warbler nest (i.e. with egg(s) or young) is observed within 200 feet of the Project Boundary during the pre-construction survey, then a species protection buffer will be established. The species protection buffer will be defined by the qualified biologist in consultation with CDFW. Construction activity shall be prohibited within the buffer zones until the young have fledged or the nest fails. Nests shall be monitored twice per week by a qualified biologist and a report submitted to the County.	**Prior to and During Construction**	**Project Biologist**		
BIO-31: If Project activities cannot be initiated outside of the bird nesting season, or if there is a lapse in construction of 15 days or longer during the bird nesting season, then the following will occur: • A qualified biologist will conduct a pre-construction survey within 7 days prior to starting work. • If an active yellow-breasted chat nest (i.e. with egg(s) or young) is observed within 200 feet of the Project Boundary during the pre-construction survey,	**Prior to and During Construction**	**Project Biologist**		

then a species protection buffer will be established. The species protection buffer will be defined by the qualified biologist in consultation with CDFW. Construction activity shall be prohibited within the buffer zones until the young have fledged or the nest fails. Nests shall be monitored twice per week by a qualified biologist and a report submitted to the County.				
BIO-32: Any vegetation removal, ground disturbances, and removal actions to the existing Waldo Road Bridge should be conducted prior to the avian breeding season (March 1 – August 31).	**During Construction**	**Construction Contractor**		
BIO-33: If the construction of the new bridge and roadway realignment will occur during the avian breeding season (March 1 – August 31), prior to the start of construction, a migratory bird and raptor survey will be conducted by a qualified biologist to identify any active nests within 200 feet of the Project Boundary. A qualified biologist shall: • Conduct a survey for all birds protected by the MBTA and CFGC within 7 days prior to the initiation of construction activities and map all nests located within 200 feet of the Project Boundary; • Develop buffer zones around active nests as recommended by a qualified biologist. Construction activities shall be prohibited within the buffer zones until the young have fledged or the nest fails. Nests shall be monitored at least twice per week to determine nesting status. • If construction activities stop for 15 days or longer, then another migratory bird and raptor survey shall be conducted within 7 days prior to the continuation of construction activities.	**Prior to and During Construction**	**Project Biologist**		
BIO-34: If removal of the existing Waldo Road Bridge will occur during the avian breeding season (March 1 – August 31), then exclusion and monitoring activities will be implemented to exclude all avian nests from the existing Waldo Road Bridge. Exclusion and monitoring activities include the following: <u>Exclusion</u> • All inactive avian nests should be removed from the bridge by a qualified biologist prior to March 1 to deter avian species from nesting on the bridge. • If exclusionary devices are necessary to prevent avian species from nesting on the existing bridge, then exclusion devices shall be installed prior to March 1 under the supervision of a qualified biologist. Exclusionary devices are to	**Prior to and During Construction**	**Construction Contractor and Project Biologist**		

be maintained and monitored by a qualified biologist until the removal of the existing bridge has been initiated. An exclusion plan shall be created by a qualified biologist and a report sent to the County and CDFW for approval. <u>Monitoring</u> • Weekly or as necessary monitoring, or additional exclusion activities, will be conducted by a qualified biologist on the existing bridge after March 1 until all bridge removal activities are complete or the end of the avian breeding season (August 31).				
BIO-35: Demolition activities and vegetation removal should begin prior to the maternity season or non-volant period (April 1 – August 31), when young bats are present but are unable to fly. If demolition does take place prior to the non-volant period, then a qualified biologist should be onsite during demolition activities to monitor for the presence of winter roosting bats.	**During Construction**	**Construction Contractor and Project Biologist**		
BIO-36: If demolition activities and vegetation removal cannot begin prior to the non-volant period than exclusion and monitoring activities will be implemented prior to demolition activities Exclusion and monitoring activities will include the following. <u>Exclusion</u> • Exclusion devices will be installed prior to the non-volant period (April 1 – August 31). Exclusion devices shall be maintained throughout the duration of bridge removal activities and removed after construction activities are complete. • An exclusion plan shall be created by a qualified biologist and a report sent to the County and CDFW for approval. <u>Monitoring</u> • Weekly or as necessary monitoring, or additional exclusion activities, will be conducted on the existing Waldo Road Bridge by a qualified biologist after excluding bats until bridge removal activities are complete or until the end of the non-volant period (August 31).	**Prior to and During Construction**	**Construction Contractor and Project Biologist**		
BIO-37: If bridge removal activities are conducted prior to the non-volant period and construction activities for the new bridge cannot begin prior to the non-volant period (April 1 – August 31), then a qualified biologist will conduct a pre-construction bat				

	exit survey no more than seven days prior to the start of construction activities to determine if bats are utilizing Waldo Road Bridge. If bats are observed roosting within Waldo Road Bridge, then the following avoidance and minimization measures shall be implemented. • Workers and vehicle disturbance shall not be allowed under the existing Waldo Road Bridge. • Construction equipment shall not be parked under the Bridge. • High beam lights shall not be used at any time under the existing bridge.				
BIO-38:	A pre-construction survey for roosting western red bats will be conducted by a qualified biologist within 7 days prior to the start of construction activities to determine presence or absence of roosting western red bats within the BSA.	**Prior to Construction**	**Project Biologist**		
BIO-39:	If roosting western red bats are observed within the BSA, the County will be notified within 2 working days of the observation. Additional avoidance and minimization measures may be implemented under the guidance of the biologist.	**Prior to Construction**	**Project Biologist**		
BIO-40:	All riparian trees that are to be removed for the construction of the roadway realignment and new bridge shall be mitigated for at a 3:1 ratio onsite. Should it be determined that onsite mitigation is infeasible, an offsite mitigation option or other approved methods would be considered during the permitting phase of the Project.	**PSE**	**County**		
BIO-41:	Mitigation for impacts to jurisdictional WOTUS will be addressed through the purchase of credits at a Corps-approved mitigation bank or payment to a Corps approved in-lieu fund as determined appropriate by the regulatory agencies.	**PSE**	**County**		
BIO-42:	It is recommended that general BMPs be implemented prior to and during construction activities, as recommended under the Cal-IPC's Preventing the Spread of Invasive Plants: Best Management Practices for Transportation and Utility Corridors (2012). The following are the recommended general BMPs under Cal-IPC: • Schedule activities to minimize potential for introduction and spread of invasive plants. • Designate specific areas for cleaning tools, vehicles, equipment, clothing and gear.	**During Construction**	**Construction Contractor**		

• Designate waste disposal areas for invasive plant materials and contain invasive plant material during transport. • Plan travel routes to avoid areas infested with invasive plants. • Clean tools, equipment, and vehicles before transporting materials and before entering and leaving worksites. • Clean clothing, footwear, and gear before leaving infested areas. • Prepare worksites to limit the introduction and spread of invasive plants. • Minimize soil and vegetation disturbance.				
Cultural Resources				
CUL-1: Per the proposed *Memorandum of Agreement Between the California Department of Transportation and the California State Historic Preservation Officer Regarding the Waldo Road over Dry Creek Bridge Replacement Project, Yuba County, California* (MOA), the following measures shall be implemented to resolve adverse effects to Waldo Road Bridge:	**Prior to Construction**	**County/ Caltrans/ Project Architectural Historian**		
• **CUL-1a: Recordation.** Caltrans District 3 shall ensure that the County shall record and document the Waldo Road Bridge to the standards of the Historic American Engineering Record (HAER). This recordation and documentation will be conducted as follows:	**Prior to Construction**	**Project Architectural Historian**		
i. Prior to the commencement of construction activities for the project, the County shall contact the regional Historic American Building Survey/Historic American Engineering Record/Historic American Landscape Survey (HABS/HAER/HALS) coordinator at the National Park Service Interior Regions 8, 9, 10, and 12 Regional Office (NPS) to request that NPS stipulate the level of and procedures for completing the documentation. Within ten (10) calendar days of receiving the NPS stipulation letter, the County shall send a copy of the letter to all parties to this MOA for their information. If no response is received within ninety (90) calendar days of submittal to NPS, Caltrans shall confer with SHPO on how to move forward with HAER documentation.	**Prior to Construction**	**County/ Project Architectural Historian**		
ii. The County shall ensure that all recordation documentation activities are performed or directly supervised by architects, architectural historians, photographers, and/or other professionals meeting the qualification	**Prior to Construction**	**County**		

standards in the Secretary of Interior's Professional Qualification Standards (36 CFR 61, Appendix A).				
iii. The County shall prepare HAER documentation for the Waldo Bridge as per the NPS stipulation letter, or as directed by Caltrans.	**Prior to Construction**	**Project Architectural Historian**		
a. Caltrans shall have thirty (30) calendar days to review and comment on the draft HAER documentation.	**Prior to Construction**	**Caltrans**		
b. The County shall revise the draft HAER in response to Caltrans comments and submit draft HAER documentation to NPS.	**Prior to Construction**	**Project Architectural Historian**		
c. The County shall prepare the final HAER documentation in response to NPS comments and directions. The County shall send final archival HAER documentation to NPS.	**Prior to Construction**	**Project Architectural Historian**		
iv. Upon receipt of the NPS written acceptance letter, the County shall make archival, digital, and/or bound copies of the documentation and provide them to the Caltrans Library and History Center, Sacramento; the California Office of Historic Preservation; and the Caltrans Cultural Studies Office. Additional copies will be offered to the Wheatland Historical Society in Wheatland, Mary Aaron Museum in Marysville, California Historical Society, California Preservation Foundation, and North Central Information Center of the California Historical Resources Information Center.	**Prior to Construction**	**County**		
v. Caltrans shall notify SHPO that the documentation is complete and all copies are distributed as outlined in MOA Stipulation II.A.4. Completion of the documentation shall be included in the annual report outlined in MOA Stipulation IV.G. All documentation shall be completed prior to the commencement of the project's construction activities.	**Prior to Construction**	**Caltrans**		
• **CUL-1b: Interpretation.** i. Caltrans District 3 shall ensure that the County will design, produce, and install a permanent metal plaque on a concrete mount no later than one year following completion of construction. The plaque will provide a brief history of the historic Waldo Road Bridge, a physical description of the structure and its engineering features, and its significance. The plaque will be installed at a publicly accessible site in close, visual proximity to the Waldo Road Bridge crossing, within County right-of-way so that it can be	**During / Post Construction**	**County and Caltrans**		

visible to those traveling through the area and utilizing the Spenceville Wildlife Area.					
a. Caltrans shall have thirty (30) calendar days to review and comment on the design and text of the new plaque before it is produced and installed. If revisions are needed, the County will resubmit the design to Caltrans District 3 for review and approval.	**During / Post Construction**	**Caltrans and County**		
b. Following approval by Caltrans District 3, Caltrans District 3 shall submit the draft copy of the plaque design and text to the MOA signatories. The signatories will have thirty (30) calendar days to review and comment on the design. Caltrans District 3 will take any comments into account in revising the draft plaque and provide the MOA parties with written documentation indicating whether and how the design will be modified in accordance with any comments received. Objections will be resolved using the process outlined in MOA Stipulation IV.C.	**During / Post Construction**	**Caltrans**		
c. Caltrans District 3 will inform the SHPO within 90 days following the installation of the plaque, and completion of this treatment measure will be documented in the annual report outlined MOA Stipulation IV.C.	**During / Post Construction**	**Caltrans**		
ii. Caltrans District 3 shall ensure that the County will prepare and produce a booklet discussing the construction and engineering of the Waldo Road Bridge and its use within the context of Yuba County history. The booklet shall be prepared within one year following completion of recordation under MOA Stipulation II.A. It shall be paperback, not to exceed 10 pages, and shall include high quality black and white images of the Waldo Road Bridge, copies of historic photographs and/or drawings, as appropriate, and text describing the Waldo Road Bridge, its design, construction, and use. Data for the booklet will be based on the HAER prepared under MOA Stipulation II.A and other relevant historical reports or documentary sources.	**During / Post Construction**	**County and Project Architectural Historian**		
a. The County shall submit a draft copy to Caltrans District 3 prior to making the booklet available to recipients. Caltrans District 3 will have thirty (30) calendar days to review and comment on the booklet. If revisions are needed, the County will resubmit the booklet to Caltrans District 3 for review and approval.	**During / Post Construction**	**County; Project Architectural Historian; Caltrans**		

b. Following approval by Caltrans District 3, Caltrans shall submit the draft copy of the booklet to the MOA signatories. The signatories will have thirty (30) calendar days to review and comment on the booklet. Caltrans District 3 will take any comments into account in revising the draft booklet and provide the MOA parties with written documentation indicating whether and how the booklet will be modified in accordance with any comments received.	**During / Post Construction**	**Caltrans**		
c. Following the comment period for the MOA signatories, the County shall produce hardcopies and a print-on-demand electronic version for distribution to local repositories, including, but not necessarily limited to, the Wheatland Historical Society in Wheatland, Mary Aaron Museum in Marysville, and Yuba County Public Library. One copy shall be submitted to Caltrans District 3 and the Caltrans Transportation Library and History Center in Sacramento, and electronic versions shall be submitted to the MOA signatories.	**During / Post Construction**	**County and Project Architectural Historian**		
d. The County shall maintain the high-resolution print-ready electronic version of the booklet for up to five years and produce additional copies within that time frame if there is demand.	**During / Post Construction**	**County**		
e. Caltrans District 3 will inform the MOA signatories within 90 days following the completion of this treatment measure, and completion of this treatment measure will be documented in the annual report outlined in MOA Stipulation IV.G.	**During / Post Construction**	**Caltrans**		
• **CUL-1c: Discoveries and Unanticipated Effects.** i. As legally mandated, human remains and related items discovered during the implementation of the terms of this Agreement and the Undertaking will be treated in accordance with the requirements of Health and Safety Code Section 7050.5(b). If pursuant to of Health and Safety Code Section 7050.5(c) the coroner determines that the human remains are or may be those of a Native American, then the discovery shall be treated in accordance with the provisions of Public Resources Code Sections 5097.98 (a)- (d). Caltrans shall ensure, to the extent possible, that the views of the Most Likely Descendent(s), as determined by the California Native American Heritage Commission, are taken into consideration when decisions are made about the disposition of Native American human remains and associated objects.	**During Construction**	**County and Construction Contractor**		

ii. If Caltrans determines, during implementation of the terms of this MOA or after construction of the Undertaking has commenced, that the Undertaking will affect a previously unidentified property that may be eligible for listing in the NRHP or affect a known historic property in an unanticipated manner, Caltrans will address the discovery or unanticipated effect in accordance with 36 CFR §800.13(b)(3). Caltrans at its discretion may hereunder assume any discovered property to be eligible for the NRHP in accordance with 36 CFR §800.13.	**During Construction**	**Caltrans and County**		
CUL-2: Per the proposed *Archaeological Monitoring Area and Environmentally Sensitive Area Action Plan for the Waldo Road over Dry Creek Bridge Replacement Project, Yuba County, California*, the following measures shall be implemented as part of the Finding of No Adverse Effect to protect sensitive areas within the boundary of CA-YUB-1924/H and to monitor ground disturbing activity within the APE:	**Prior to, During, and Post Construction**	**Caltrans/ County/ Project Archaeologist**		
• **CUL-2a:** The ESA and AMA are clearly described and illustrated on the final construction design, plans, and specifications used by construction personnel.	**PSE and Prior to Construction**	**County and Project Archaeologist**		
• **CUL-2b:** All responsible parties, including the Caltrans Project Archaeologist, will review the plans, specifications, and estimates, and ensure that the SSP's for the ESA and AMA are included and that the ESA and AMA are clearly defined and illustrated.	**PSE and Prior to Construction**	**Caltrans/ County/ Project Archaeologist/ Resident Engineer**		
• **CUL-2c:** The ESA and AMA will be discussed during the preconstruction meeting and ESA and AMA restrictions and historic preservation laws are disseminated in writing to construction and field personnel. The importance of the ESA will be discussed with construction personnel and it will be stressed that no construction activity (including the storing or staging of materials and equipment) should occur within the ESA and that workers must remain outside of the ESA at all times. The importance of the AMA will also be discussed and that no ground disturbing work can be done within the AMA without the archaeological monitor and Native American monitor present.	**Prior to Construction**	**County/Project Archaeologist/ Resident Engineer**		

• **CUL-2d:** The Resident Project Engineer will notify the Project Archaeologist at least three weeks in advance of construction to ensure that an archaeologist will be available to monitor fence installation and allow for field review of the ESA locations.	**Prior to Construction**	**Resident Engineer**		
• **CUL-2e:** The Contractor will install temporary plastic "ESA" fencing along the ESA. The fencing will be installed at least one week prior to initiating any work. An archaeologist qualified under the PA will supervise and monitor fence installation.	**Prior to Construction**	**Construction Contractor/ Project Archaeologist**		
• **CUL-2f:** The Caltrans Project Archaeologist will be notified when construction begins. The ESA and ESA fencing will be inspected weekly by an archaeologist qualified under the PA to ensure the integrity of the ESA is maintained. All ground disturbing work within the AMA will be monitored by an archaeologist qualified under the PA and a NA monitor.	**Prior to and During Construction**	**Resident Engineer/ Project Archaeologist**		
• **CUL-2g:** The State Historic Preservation Officer and the Caltrans Cultural Studies Office will be notified within 48 hours of any ESA breach and consult immediately to determine how the breach will be addressed. Representatives of local Native American groups will also be consulted.	**During Construction**	**Project Archaeologist / Caltrans Project Archaeologist**		
• **CUL-2h:** Caltrans Project Archaeologist will be informed when construction is finished.	**Post Construction**	**Project Archaeologist**		
• **CUL-2i:** The Contractor, under supervisions of an archaeologist qualified under the Caltrans Section 106 PA, will remove temporary "ESA" fencing at the conclusion of construction.	**Post Construction**	**Construction Contractor/ Project Archaeologist**		
Hazards and Hazardous Materials				
HAZ-1: The presence of lead in soil within the Project area and paint on the bridge indicate that the requirements of Construction Safety Orders, Section (§) 1532.1 Lead, are applicable to work performed within the Project limits but a pre-work notification is not required. In addition, Caltrans Special Provision 7-1.02K(6)(j)(iii) is applicable to address safety measures associated with handling of lead containing earth materials.	**During Construction**	**Construction Contractor**		

HAZ-2: If more than 160 square feet, 260 linear feet or 35 cubic feet of regulated asbestos containing material (RACM) is discovered and planned for removal on the Project, formal written notification to the CARB is required.	**Prior to Construction**	**County and Construction Contractor**		
HAZ-3: If RACM is discovered during site work and planned for disturbance at the bridge site then Cal/OSHA Construction Safety Orders, §1529 Asbestos is applicable.	**During Construction**	**Construction Contractor**		
HAZ-4: Monitoring will be conducted during construction to evaluate the absence or presence of Munition and Explosive of Concern (MEC). Further evaluation for the presence of MEC in the Project area may be required. In the event that MEC is identified, appropriate removal and disposal of MEC should be completed in accordance with regulatory standards.	**During Construction**	**Construction Contractor**		
Hydrology/Water Quality				
WQ-1: Prior to the County's approval of a grading plan or site improvement plans, the project applicant shall obtain from the Central Valley RWQCB a NPDES Permit for the disturbance of over one acre. Further, approval of a General Construction Storm Water Permit. The permitting process also requires that a SWPPP be prepared prior to construction activities. The SWPPP is used to identify potential construction pollutants that may be generated at the site including sediment, earthen material, chemicals, and building materials. The SWPPP also describes best management practices that will be employed to eliminate or reduce such pollutants from entering surface waters.	**Prior to Construction**	**Construction Contractor**		
Noise				
NOI-1: To minimize the construction-generated noise, abatement measures as specified in the special provisions under Standard Specification 14-8.02 "Noise Control" and SSP14-8.02 must be followed: ▪ 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.	**During Construction**	**Construction Contractor**		
Tribal Cultural Resources				

TCR-1:	The County shall contact the UAIC at least 2 weeks prior to project ground-disturbing activities to retain the services of a Tribal Monitor(s). The duration of the construction schedule and Tribal Monitoring shall be determined at this time. A contracted Tribal Monitor(s) shall monitor the vegetation grubbing, stripping, grading, trenching, and other agreed-upon ground-disturbing activities in the project area. The Tribal Monitor, in consultation with the UAIC Tribal Historic Preservation Officer (THPO) and the County shall determine an end or reduction to the on-site monitoring if/when construction activities have a low potential for impacting Tribal Cultural Resources. Tribal Monitors or Tribal Representatives shall have the authority to direct that work be temporarily paused, diverted, or slowed within 100 feet of the immediate impact area if sites or objects of potential significance are identified. The temporary pause/diversion shall be of an adequate duration for the Tribal Representative to examine the resource. Once a potential discovery has been identified, the TCR Discovery Protocol (TCR-2) shall be implemented and followed. The County shall assist with resolution of disagreements between the Construction Contractor and the UAIC, if disagreements occur on the project. It is the responsibility of the Tribal Monitor(s) to wear the appropriate safety equipment while on the construction site and adhere to construction safety procedures and protocols. To track the implementation of this measure, the Tribal Monitor(s) shall document field-monitoring activities on a Tribal Monitor log.	**Prior to Construction**	**County**		
TCR-2:	The County, in consultation with the UAIC, shall develop a TCR Discovery Protocol to be implemented during construction of the Project. The TCR Discovery Protocol will outline how the County and the UAIC will coordinate regarding Native American cultural resources discovered during construction, how those discoveries will be assessed and treated, and how human remains will be treated if discovered and if the UAIC is identified by the Native American Commission as the Most Likely Descendent. The TCR Discovery Protocol will be finalized prior to the start of construction and will be supplied to the Resident Engineer and Construction Manager. At no time, regardless of the presence or absence of a tribal monitor, shall suspected TCRs be mishandled or disrespected. Discussion of appropriate treatment of TCRs in the TCR Discovery Protocol may include but should not be limited to:	**Prior to Construction**	**County**		

• Recordation of the resource(s) • Avoidance and preservation of the resource(s) • Reburial of the resource(s) onsite in a designated area subject to no future disturbance (as specified in TCR-3). The location of the reburial shall be acceptable to the UAIC.				
TCR-3: The County, in consultation with the UAIC, will designate an area for the reburial of all collected Native American cultural resources, including those collected as part of previous archaeological investigations and any discovered during construction activities, that will be protected for all future ground disturbance either through a deed restriction or in perpetuity-marker designating the protected area. The County will also coordinate with the UAIC regarding compensation for reburial services.	**Prior to Construction**	**County**		
TCR-4: All disturbed areas would be restored to pre-construction contours and revegetated, through hydroseeding or other means. If hydroseed and plant mixes are used during or post-construction, plant species must consist of a biologist approved plant palate seed mix of native species sourced locally to the Project area.	**During and Post Construction**	**Construction Contractor/ Project Biologist**		

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1325 J Street, Room 1480
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State Government

California State Clearinghouse
Online Submittal through CEQA Submit

California Department of Fish and Wildlife Region 2
1701 Nimbus Road
Rancho Cordova, CA 95670
R2Info@wildlife.ca.gov

Central Valley Regional Water Quality Control Board
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670

Local Agencies

Yuba County Clerk-Recorder
915 8th Street, Suite 107
Marysville, CA 95901

Other Organizations

Yuba County Library
303 Second St
Marysville, CA 95901

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704 D Street
Marysville, CA 95901

8 REFERENCES

Association of Environmental Professionals. 2023. California Environmental Quality Act. Statute & Guidelines. Available at: https://www.califaep.org/docs/CEQA_Handbook_2023_final.pdf

Bryant, William A. and Earl W. Hart. 2009. Fault-Rupture Hazard Zones in California. Alquist-Priolo Earthquake Fualt Zoning Act with Index to Earthquake Fault Zones Maps.

California Air Resources Board (CARB). 2019. Map of State and Federal Area Designations. Available at: https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations

California Air Resources Board (CARB). 2009a. The 2009 California Almanac of Emissions and Air Quality. Available: http://www.arb.ca.gov/aqd/almanac/almanac09/almanac09.htm

California Department of Transportation (Caltrans). 2013. Waldo Road over Dry Creek Bridge Replacement Project – Initial Site Assessment

California Department of Transportation (Caltrans). 2019. Waldo Road over Dry Creek Bridge Replacement Project – Initial Site Assessment

California Department of Transportation. 2020. California State Scenic Highway System Map. Available at: https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa

California Department of Transportation (Caltrans). 2023. Waldo Road over Dry Creek Bridge Replacement Project – Initial Site Assessment Update

California Department of Transportation (Caltrans). 2023. Waldo Road over Dry Creek Bridge Replacement Project – Natural Environment Study

California Geological Society. 1992, 1:250,000 scale of the Geologic Map of the Chico Quadrangle, California.

California Natural Diversity Database (CNDDB). 2023. Rarefind 5. California Department of Fish and Wildlife. Sacramento, California.

Feather River Air Quality Management District (FRAQMD). 1998. Indirect Source Review Guidelines. Marysville, CA.

Feather River Air Quality Management District (FRAQMD). 2010. Indirect Source Review Guidelines. Available at: http://www.fraqmd.org/PlanningTools.htm

Mayer, K.E and Laudenslayer, W.F. 1988. A guide to Wildlife Habitats of California. California Department of Forestry and Fire Protection. Sacramento, California.

Natural Resources Conservation Service. 2022. Web Soil Survey results for Waldo Junction, California.

Sacramento Metropolitan Air Quality Management District. 2023. Roadway Construction Emissions Model, Version 9.0.1.

U.S. Environmental Protection Agency. 2009a (April). Technical Highlights: Emission Factors for Locomotive. Prepared by Office of Transportation and Air Quality. Available: http://www.epa.gov/nonroad/locomotv/420f09025.pdf

Yuba County Planning Department. 2011. Final Yuba County 2030 General Plan. Available at: https://www.yuba.org/departments/community_development/planning_department/general_plan.php

Yuba County Planning Department. 2011. Final Yuba County 2030 General Plan Environmental Impact Report. Available at: https://www.yuba.org/departments/community_development/planning_department/general_plan.php

Appendix A: California Environmental Quality Act Checklist

The following checklist identifies physical, biological, social, and economic factors that might be affected by the proposed Project. CEQA impact levels include “potentially significant impact,” “less than significant impact with mitigation,” “less than significant impact,” and “no impact.”

Supporting documentation of all CEQA checklist determinations is provided in Chapter 3 of this EIR. Discussion of all impacts and mitigation measures is under the appropriate topic headings in Chapter 3.

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a “Potentially Significant Impact,” as indicated by the checklist on the following pages.

☒	Aesthetics	☐	Agriculture 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/ Traffic	☒	Tribal Cultural Resources
☐	Utilities/Service Systems	☐	Wildfire	☒	Mandatory Findings of Significance

Issues:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
I. AESTHETICS: Would the Project:				
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) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☒	☐	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒
II. AGRICULTURE AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the Project:				
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?	☐	☐	☐	☒

Issues:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒
III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the Project:				
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?	☐	☐	☐	☒
IV. BIOLOGICAL RESOURCES: 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 or U.S. Fish and Wildlife Service?	☐	☒	☐	☐

Issues:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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 US 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?	☐	☐	☐	☒
V. CULTURAL RESOURCES: Would the Project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 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?	☐	☒	☐	☐
VI. ENERGY: 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	☐	☐	☐	☒

Issues:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
for renewable energy or energy efficiency?				
VII. GEOLOGY AND SOILS: 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 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?	☐	☐	☐	☒
VIII. GREENHOUSE GAS EMISSIONS: Would the Project:				
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?	☐	☐	☐	☒

Issues:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIALS: 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 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 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?	☐	☐	☐	☒
X. HYDROLOGY AND WATER QUALITY: Would the Project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐

Issues:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that 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 a 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?	☐	☒	☐	☐
XI. LAND USE AND PLANNING: Would the Project:				
a) Physically divide an established community?	☐	☐	☐	☒
b)Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Issues:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XII. MINERAL RESOURCES: 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?	☐	☐	☐	☒
XIII. NOISE: 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?	☐	☐	☐	☒
XIV. POPULATION AND HOUSING: Would the Project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
XV. PUBLIC SERVICES:				
a) Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered				

Issues:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐
Other public facilities?	☐	☐	☒	☐
XVI. RECREATION:				
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?	☐	☐	☐	☒
XVII. TRANSPORTATION/TRAFFIC: Would the Project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☒
b) Conflict or be inconsistent with CEQA Guidelines § 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?	☐	☐	☒	☐
XVIII. TRIBAL CULTURAL RESOURCES: Would the Project:				

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

Issues:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒
XX. WILDFIRE: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, 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?	☐	☐	☒	☐
XXI. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the Project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☒	☐	☐	☐

Issues:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
b) Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a Project are considerable when viewed in connection with the effects of past Projects, the effects of other current Projects, and the effects of probable future Projects)?	☐	☒	☐	☐
c) Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Appendix B: Notice of Preparation

The following comment letters were received during public circulation of the Notice of Preparation. All comments are addressed within the text of the document.

- California Department of Fish and Wildlife (CDFW)
- Native American Heritage Commission (NAHC)
- Regional Water Quality Control Board (RWQCB)
- United Auburn Indian Community of Auburn Rancheria (UAIC)

Yuba County
Community Development
Public Works Department
915 8th Street · Marysville, CA · 95901
Phone Number (530)749-5420 · Fax Number (530)749-5424

NOTICE OF PREPARATION

FROM: Yuba County
Community Development
Public Works Department
915 8th Street
Marysville, CA 95901

TO: Responsible Agencies, Trustee Agencies, and Interested Parties

DATE: August 24, 2022

SUBJECT: Notice of Preparation of a Draft Environmental Impact Report for the Waldo Road Over Dry Creek Bridge Replacement Project

Yuba County (County) will be the Lead Agency and will prepare a Draft Environmental Impact Report (EIR) for the proposed Waldo Road Over Dry Creek Bridge Replacement Project (Project), described below. We are interested in your agency's views as to the appropriate scope and content of the Draft EIR's environmental information pertaining to your agency's statutory responsibilities related to the Project. We will need the name of a contact person for your agency. For interested individuals, we would like to be informed of environmentaltopics of interest to you regarding the Project.

Because the County has already determined that an EIR is required for the proposed Project, and as permitted by State California Environmental Quality Act (CEQA) Guidelines Section 15060(d) (Preliminary Review), the County will not prepare an Initial Study for the Project. Further, the proposed Project, its location, and its potential environmental effects are described below. The County welcomes public input during the Notice of Preparation (NOP) review period.

Project Title: Waldo Road Over Dry Creek Bridge Replacement Project

Project Applicant: Yuba County, Department of Public Works

Project Location: The Project is located in rural Yuba County, roughly 14 miles northeast of Wheatland. Waldo Road is a generally north/south road and the bridge crosses Dry Creek on a generally north/south alignment.

Public Review Period: August 24, 2022 to September 24, 2022

Responses and Comments: Please send your responses and comments by September 24, 2022, to Sam Bunton, Public Works Department Assistant Director at sbunton@co.yuba.ca.us or at the following address. Please note that an email response is preferred if available to you.

Samuel L. Bunton, PE
Assistant Director
Yuba County Public Works Department
915 8th Street
Marysville, CA 95901

Document Availability:

This Notice of Preparation can be viewed on the County website at:

https://www.yuba.org/departments/community_development/public_works/index.php.

If unavailable on the website, you may obtain the document in electronic format by telephoning the Department of Public Works at (530)-749-5420, or by emailing Sam Bunton, Public Works Department Assistant Director at publicworks@co.yuba.ca.us. To request a PDF version of the document, please reference the Project title above. A hard copy can be viewed at the Public Works counter within the County Office located at 915 8th Street, Marysville, CA 95901. Current office hours are Monday through Friday, 8:00am to 4:00pm (closed 12:00pm to 1:00pm).

Project Description:

The County is proposing to demolish the existing bridge (Bridge No. 16C0006) and build a new bridge, approximately 100 feet upstream, to carry Waldo Road over Dry. Waldo Road and connecting roads Spenceville Road and Camp Far West Road, are all lightly traveled routes passing through rolling Sierra foothills terrain. The bridge is located within the Spenceville Wildlife Area, a 11,900-acre wildlife preserve and public outdoor recreation area administered by the California Department of Fish and Wildlife (CDFW).

The existing bridge is currently classified as structurally deficient, with a sufficiency rating of 9.3. A new bridge is necessary to meet current design and safety standards which can safely convey vehicles, including emergency response vehicles, and pedestrians across Dry Creek. The replacement bridge will meet current applicable County, America Association of State Highway and Transportation Officials, and Caltrans design standards.

The proposed new bridge is a continuous three-span, post-tensioned concrete box girder bridge. The spans are 72 feet, 96 feet, and 72 feet respectively. It will have two, twelve-foot travel lanes and two, four-foot shoulders and provide a clear width between barrier rails of 34 feet. A vehicular railing will be attached to the edge of deck of the new structure. The piers supporting the intermediate spans will be two, four-foot diameter columns pinned at their bases with end spans supported by seat type abutments with wingwalls protected by rock slope protection. Abutments 1 and 4 (the end supports) will be founded on spread footing foundations, both embedded and doweled into intact rock at each support.

The new bridge will require a realignment of the roadway, which will correct the existing substandard curves on roadway approaches to the bridge. The vertical profile of the new bridge will be raised slightly to provide sufficient water conveyance beneath the bridge during flood events. This will also require a slight rise in the approach roadway elevation, which will gradually decrease until the realigned roadway conforms to the existing roadway elevations.

Once the new bridge has been constructed, the existing bridge would be demolished. Preservation and maintenance of the bridge is not possible due to the presence of hazardous lead paint throughout the structure, the non-standard design components, substandard curves, unprotected pedestrian access, and on-going timber and steel maintenance issues.

Acquisition of permanent right-of-way is anticipated for this Project. Since the proposed alignment is shifting

the new bridge to the east along with new approach alignments, Yuba County will no longer need right-of-way a portion of the existing right-of-way along the existing alignment, which can be given to CDFW for use in the Spenceville Wildlife Area.

Environmental Factors Potentially Affected
The County has determined that the proposed Project will require preparation of an EIR pursuant to CEQA. The following environmental topics will be addressed in the EIR.

Aesthetics: The EIR will describe the aesthetic and urban design implications of the proposed Project, including its visual relationships to the surrounding vicinity and the potential visual impacts perceived by vehicular users.

Air Quality: The EIR will describe the potential short- and long-term impacts of demolishing the existing bridge and constructing a new bridge on local and regional air quality based on methodologies defined by the Feather River Air Quality Management District.

Biological Resources: The EIR will evaluate potential impacts on biological resources, including the California black rail, tricolored blackbird, and Swainson's hawk, resulting from demolishing the existing bridge and constructing a new bridge.

Cultural Resources: The EIR will describe anticipated adverse impacts and mitigation needs associated with cultural resources, including demolition of the existing bridge which is eligible for the National Register of Historic Places.

Energy: The EIR will evaluate whether there are any inefficient, or unnecessary consumption of energy resources.

Geology and Soils: The EIR will describe the potential geological and paleontological implications of the Project.

Greenhouse Gas Emissions: The EIR will describe the potential impacts on local greenhouse gas emissions and global climate change, following the latest approach and methodologies recommended by State and regional agencies that could result from the proposed bridge replacement.

Hazards and Hazardous Materials: The EIR will describe the potential for hazardous material use or hazardous waste investigation anticipated from the Project and will describe any associated potential impacts and mitigation needs. Potential construction period hazards, hazardous material impacts, and mitigation needs will also be described.

Hydrology and Water Quality: The EIR will evaluate potential impacts on hydrology and waterquality resulting from demolition of the existing bridge and construction of a new bridge upstream, including possible effects related to drainage and flooding.

Land Use and Planning: The EIR will describe the potential effects of the Project on existing and planned land use characteristics in the Project vicinity.

Noise: The EIR will describe potential construction and long-term operation noise (traffic,mechanical systems etc.).

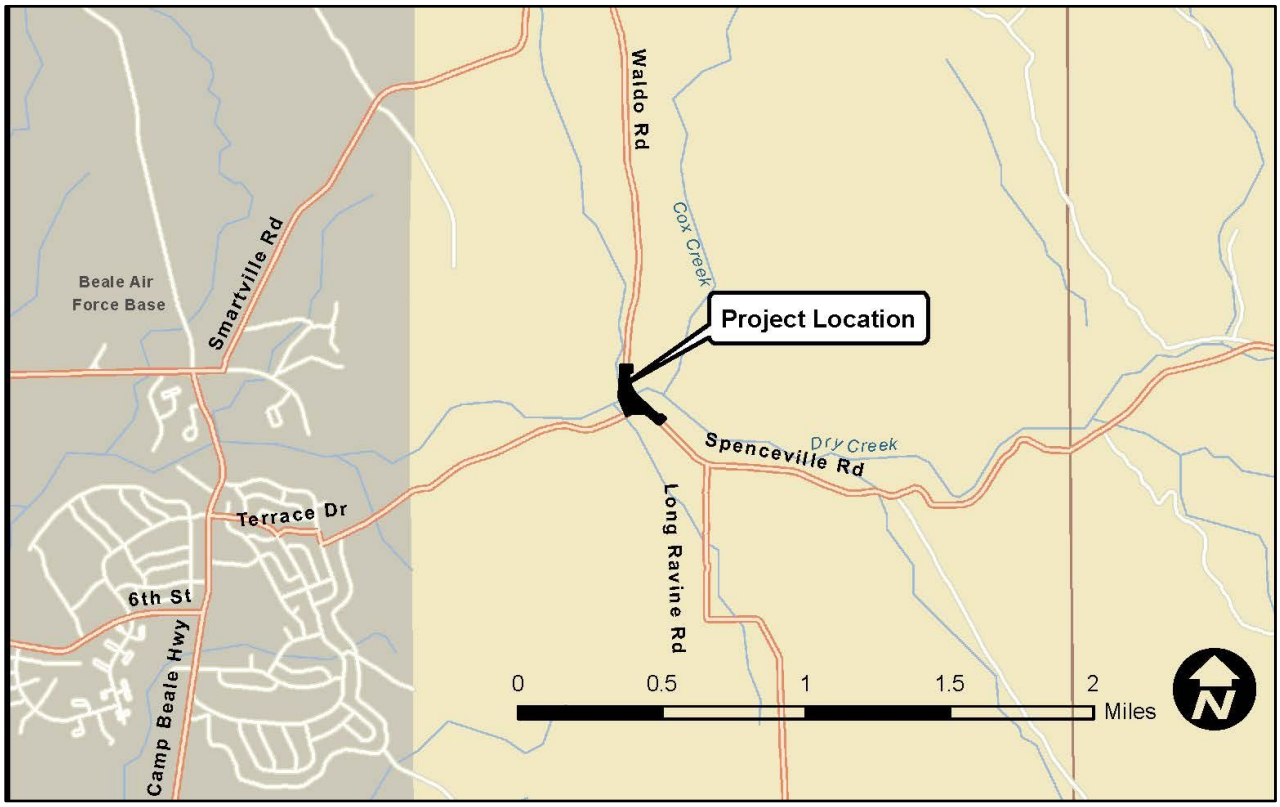
Public Services: The EIR will describe potential impacts, including temporary construction impacts, on public services and any mitigation needs.

Transportation: The EIR will describe the transportation and circulation implications of the proposed Project, including its resulting vehicle miles travelled.

Tribal Cultural Resources: The EIR will describe potential impacts to tribal cultural resources and describe the results of tribal consultation.

Utilities and Service Systems: The EIR will describe potential impacts on local utility and service systems.

Wildfires: The EIR will describe potential increases in exposure/risk to wildfires to the Project siteand surrounding areas



Appendix C: Air Quality Emissions Model

Road Construction Emissions Model, Version 9.0.1

Daily Emission Estimates for -> Waldo Road Over Dry CreekBridge Replacement Project

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	0.61	13.00	1.93	20.11	0.11	20.00	4.25	0.09	4.16	0.02	2,094.53	0.58	0.04	2,121.79
Grading/Excavation	4.75	90.09	10.12	20.61	0.61	20.00	4.66	0.50	4.16	0.16	15,381.21	4.68	0.17	15,549.72
Drainage/Utilities/Sub-Grade	3.14	59.66	7.21	20.43	0.43	20.00	4.51	0.35	4.16	0.11	10,441.23	2.71	0.12	10,545.12
Paving	0.61	14.57	1.91	0.12	0.12	0.00	0.09	0.09	0.00	0.02	2,124.67	0.56	0.04	2,151.98
Maximum (pounds/day)	4.75	90.09	10.12	20.61	0.61	20.00	4.66	0.50	4.16	0.16	15,381.21	4.68	0.17	15,549.72
Total (tons/construction project)	0.20	3.84	0.44	1.06	0.03	1.03	0.24	0.02	0.21	0.01	655.16	0.19	0.01	662.24

Notes:

Project Start Year ->	2024
Project Length (months) ->	6
Total Project Area (acres) ->	6
Maximum Area Disturbed/Day (acres) ->	2
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	410	0	0	0	200	40
Grading/Excavation	0	150	0	0	1,120	40
Drainage/Utilities/Sub-Grade	1,650	5900	0	0	720	40
Paving	250	0	0	0	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.

Total Emission Estimates by Phase for -> Waldo Road Over Dry CreekBridge Replacement Project

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	0.00	0.08	0.01	0.12	0.00	0.12	0.03	0.00	0.03	0.00	12.67	0.00	0.00	11.65
Grading/Excavation	0.14	2.73	0.31	0.62	0.02	0.61	0.14	0.02	0.13	0.00	465.28	0.14	0.01	426.73
Drainage/Utilities/Sub-Grade	0.05	0.90	0.11	0.31	0.01	0.30	0.07	0.01	0.06	0.00	157.92	0.04	0.00	144.69
Paving	0.01	0.13	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.28	0.01	0.00	17.72
Maximum (tons/phase)	0.14	2.73	0.31	0.62	0.02	0.61	0.14	0.02	0.13	0.00	465.28	0.14	0.01	426.73
Total (tons/construction project)	0.20	3.84	0.44	1.06	0.03	1.03	0.24	0.02	0.21	0.01	655.16	0.19	0.01	600.78

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 D: CNDDB, USFWS, and CNPS Special Status Species Database Results

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Camp Far West (3912113) OR Wheatland (3912114) OR Wolf (3912112) OR Browns Valley (3912124) OR Smartville (3912123) OR Rough And Ready (3912122) OR Sheridan (3812184) OR Lincoln (3812183) OR Gold Hill (3812182))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Acipenser medirostris pop. 1 green sturgeon - southern DPS	AFCAA01031	Threatened	None	G2T1	S1	
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S2	SSC
Ammodramus savannarum grasshopper sparrow	ABPBXA0020	None	None	G5	S3	SSC
Antrozous pallidus pallid bat	AMACC10010	None	None	G4	S3	SSC
Ardea herodias great blue heron	ABNGA04010	None	None	G5	S4	
Asio otus long-eared owl	ABNSB13010	None	None	G5	S3?	SSC
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Balsamorhiza macrolepis big-scale balsamroot	PDAST11061	None	None	G2	S2	1B.2
Bombus pensylvanicus American bumble bee	IIHYM24260	None	None	G3G4	S2	
Branchinecta conservatio Conservancy fairy shrimp	ICBRA03010	Endangered	None	G2	S2	
Branchinecta lynchi vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S4	
Calystegia stebbinsii Stebbins' morning-glory	PDCON040H0	Endangered	Endangered	G1	S1	1B.1
Carex xerophila chaparral sedge	PMCYP03M60	None	None	G2	S2	1B.2
Circus hudsonius northern harrier	ABNKC11011	None	None	G5	S3	SSC
Clarkia biloba ssp. brandegeeae Brandegee's clarkia	PDONA05053	None	None	G4G5T4	S4	4.2
Corynorhinus townsendii Townsend's big-eared bat	AMACC08010	None	None	G4	S2	SSC
Desmocerus californicus dimorphus valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2T3	S3	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Downingia pusilla dwarf downingia	PDCAM060C0	None	None	GU	S2	2B.2
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Erethizon dorsatum North American porcupine	AMAFJ01010	None	None	G5	S3	
Gratiola heterosepala Boggs Lake hedge-hyssop	PDSCR0R060	None	Endangered	G2	S2	1B.2
Icteria virens yellow-breasted chat	ABPBX24010	None	None	G5	S3	SSC
Juncus leiospermus var. ahartii Ahart's dwarf rush	PMJUN011L1	None	None	G2T1	S1	1B.2
Lasiurus cinereus hoary bat	AMACC05032	None	None	G3G4	S4	
Lasiurus frantzii western red bat	AMACC05080	None	None	G4	S3	SSC
Laterallus jamaicensis coturniculus California black rail	ABNME03041	None	Threatened	G3T1	S2	FP
Lathyrus sulphureus var. argillaceus dubious pea	PDFAB25101	None	None	G5T1T2Q	S1S2	3
Legenere limosa legenere	PDCAM0C010	None	None	G2	S2	1B.1
Lepidurus packardi vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G4	S3	
Linderiella occidentalis California linderiella	ICBRA06010	None	None	G2G3	S2S3	
Melospiza melodia pop. 1 song sparrow ("Modesto" population)	ABPBXA3013	None	None	G5T3?Q	S3?	SSC
Myotis yumanensis Yuma myotis	AMACC01020	None	None	G5	S4	
Navarretia myersii ssp. myersii pincushion navarretia	PDPLM0C0X1	None	None	G2T2	S2	1B.1
Northern Hardpan Vernal Pool Northern Hardpan Vernal Pool	CTT44110CA	None	None	G3	S3.1	
Oncorhynchus mykiss irideus pop. 11 steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	G5T2Q	S2	
Oncorhynchus tshawytscha pop. 11 chinook salmon - Central Valley spring-run ESU	AFCHA0205L	Threatened	Threatened	G5T2Q	S2	
Rana boylii pop. 3 foothill yellow-legged frog - north Sierra DPS	AAABH01053	None	Threatened	G3T2	S2	
Riparia riparia bank swallow	ABPAU08010	None	Threatened	G5	S3	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Setophaga petechia yellow warbler	ABPBX03010	None	None	G5	S3S4	SSC
Spea hammondii western spadefoot	AAABF02020	None	None	G2G3	S3S4	SSC
Wolffia brasiliensis Brazilian watermeal	PMLEM03020	None	None	G5	S2	2B.3

Record Count: 42

NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST
ylla	Mexican mosquito fern	Azollaceae	annual/perennial herb	Aug	None	None
macrolepis	big-scale balsamroot	Asteraceae	perennial herb	Mar-Jun	None	None
ssp.	valley brodiaea	Themidaceae	perennial bulbiferous herb	Apr-May(Jun)	None	None
e	Sierra foothills brodiaea	Themidaceae	perennial bulbiferous herb	May-Aug	None	None
binsii	Stebbins' morning-glory	Convolvulaceae	perennial rhizomatous herb	Apr-Jul	FE	CE
a	chaparral sedge	Cyperaceae	perennial herb	Mar-Jun	None	None
ssp.	Brandegee's clarkia	Onagraceae	annual herb	(Mar)May-Jul	None	None
silla	dwarf downingia	Campanulaceae	annual herb	Mar-May	None	None
stis	stinkbells	Liliaceae	perennial bulbiferous herb	Mar-Jun	None	None
osepala	Boggs Lake hedge-hyssop	Plantaginaceae	annual herb	Apr-Aug	None	CE
rmus var.	Ahart's dwarf rush	Juncaceae	annual herb	Mar-May	None	None
ureus var.	dubious pea	Fabaceae	perennial herb	Apr-May	None	None
sa	legenere	Campanulaceae	annual herb	Apr-Jun	None	None
ureus	bristly leptosiphon	Polemoniaceae	annual herb	Apr-Jul	None	None
dtii ssp.	Humboldt lily	Liliaceae	perennial bulbiferous herb	May-Jul(Aug)	None	None
ersii ssp.	pincushion navarretia	Polemoniaceae	annual herb	Apr-May	None	None
ticum	oval-leaved viburnum	Viburnaceae	perennial deciduous shrub	May-Jun	None	None

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To: May 30, 2023
Project Code: 2023-0087229
Project Name: Waldo Road over Dry Creek Bridge Replacement Project

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 ECOS-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 ECOS-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:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.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/birds/policies-and-regulations.php.

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/birds/bird-enthusiasts/threats-to-birds.php.

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/birds/policies-and-regulations/executive-orders/e0-13186.php.

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: 2023-0087229
Project Name: Waldo Road over Dry Creek Bridge Replacement Project
Project Type: Bridge - Replacement
Project Description: Yolo County, CA
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@39.11187765,-121.30830365863659,14z

Counties: Yuba County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 4 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 Fisheries[1], 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.

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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.

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate
Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7850	Threatened

CRUSTACEANS

NAME	STATUS
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp *Lepidurus packardi* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency:	Private Entity
Name:	Alexander Smither
Address:	117 Meyers Street
Address Line 2:	Suite 120
City:	Chico
State:	CA
Zip:	95928
Email	alexsmither91@gmail.com
Phone:	5303329909

Waldo Road Bridge Replacement Project

Quad Name **Camp Far West**
Quad Number **39121-A3**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) - **X**
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) - **X**
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 - **X**
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 -

Lead Agency:
County of Yuba

Applicant:
County of Yuba
915 8th Street
Marysville, CA 95901

Alexander Smither
Gallaway Enterprises
530.332.9909

Observed Wildlife Species at the Waldo Road Bridge Replacement Project	
Scientific Name	**Common Name**
Melanerpes formicivorus	Acorn Woodpecker
Falco sparverius	American Kestrel
Turdus migratorius	American Robin
Myiarchus cinerascens	Ash-throated Flycatcher
Thryomanes bewickii	Bewick's Wren
Sayornis nigricans	Black Phoebe
Euphagus cyanocephalus	Brewer's Blackbird
Molothrus ater	Brown-headed Cowbird
Icterus bullockii	Bullock's Oriole
Callipepla californica	California Quail
Melozone crissalis	California Towhee
Corvus corax	Common Raven
Sturnus vulgaris	European Starling
Haemorhous mexicanus	House Finch
Troglodytes aedon	House Wren
Charadrius vociferus	Killdeer
Spinus psaltria	Lesser Goldfinch
Anas platyrhynchos	Mallard
Zenaida macroura	Mourning Dove
Picoides nuttallii	Nuttall's Woodpecker
Buteo lineatus	Red-shouldered Hawk
Buteo jamaicensis	Red-tailed Hawk
Agelaius phoeniceus	Red-winged Blackbird
Melospiza melodia	Song Sparrow
Tachycineta bicolor	Tree Swallow
Cathartes aura	Turkey Vulture
Western Bluebird	Western Bluebird
Tyrannus verticalis	Western Kingbird
Contopus sordidulus	Western Wood-pewee
Sitta carolinensis	White-breasted Nuthatch
Elanus leucurus	White-tailed Kite

Observed Plant Species at the Waldo Road Bridge Replacement Project on May 24, 2023	
Scientific Name	**Common Name**
Acmispon americanus	Spanish lotus
Aira caryophyllea	Silver hairgrass
Amsinckia sp.	Fiddleneck species
Amsinckia intermedia	Common fiddleneck
Anthemis cotula	Mayweed
Avena barbata	Wild oats
Brachypodium distachyon	False brome
Brassica nigra	Black mustard
Briza minor	Lesser quaking-grass
Bromus hordeaceus	Soft chess
Carduus pycnocephalus	Italian thistle
Castilleja attenuata	Valley tassels
Centaurea solstitialis	Yellow star thistle
Centaurium tenuiflorum	June centaury
Centromadia sp.	Spikeweed
Cerastium glomeratum	Mouse-eared chickweed
Clarkia purpurea ssp. quadrivulnera	Four-spot clarkia
Convolvulus arvensis	Bindweed
Crassula aquatica	Aquatic pygmyweed
Croton setiger	Turkey-mullein
Cynodon dactylon	Bermuda grass
Cynosurus echinatus	Hedgehog dogtail
Dichelostemma congestum	Fork-toothed ookow
Elymus caput-medusae	Medusahead
Epilobium brachycarpum	Tall willowherb
Epilobium cleistogamum	Selfing willowherb
Eragrostis cilianensis	Stinkgrass
Erigeron bonariensis	South American horseweed
Erodium moschatum	Whitestem filaree
Festuca bromoides	Six-weeks fescue
Festuca perennis	Rye-grass
Filago californica	California cottonrose
Galium parisiense	Wall bedstraw
Geranium dissectum	Cut-leaved geranium
Hordeum marinum ssp. *gussoneanum*	Mediterranean barley
Hordeum murinum	Wall hare barley
Hypericum perforatum	Klamathweed
Hypochaeris glabra	Smooth cat's ear
Juncus bufonius	Toadrush

Lactuca serriola	Prickly lettuce
Lepidium sp.	Pepperweed species
Leontodon saxatilis	Hawkbit
Lupinus sp.	Lupine species
Lysimachia arvensis	Scarlet pimpernel
Matricaria discoidea	Common pineapple weed
Microseris douglasii ssp. tenella	Douglas' microseris
Navarretia intertexta ssp. intertexta	Needle-leaved navarretia
Oxalis sp.	Clover species
Plagiobothrys northofluvus	Rusty popcorn flower
Plagiobothrys stipitatus var. *micranthus*	Small-flowered popcornflower
Plantago lanceolata	English plantain
Poa annua	Annual bluegrass
Poa bulbosa	Bulbous bluegrass
Polygonum aviculare	Prostrate knotweed
Psilocarphus tenellus	Slender wooly-marbles
Ranunculus muricatus	Prickle-seeded buttercup
Rumex acetosella	Common sheep sorrel
Rumex crispus	Curly dock
Rumex pulcher	Fiddle dock
Sherardia arvensis	Field-madder
Sisymbrium officinale	Hedge mustard
Tragopogon dubius	Yellow salsify
Trifolium glomeratum	Sessile-headed clover
Trifolium hirtum	Rose clover
Trifolium pratense	Red clover
Trifolium subterraneum	Sub clover
Vicia sativa	Garden vetch
Vicia villosa	Winter vetch

Appendix E: FEMA Firmette Map

National Flood Hazard Layer FIRMette

FEMA

121°18'47"W 39°6'56"N

121°18'9"W 39°6'28"N

Feet

0 250 500 1,000 1,500 2,000

1:6,000

Basemap Imagery Source: USGS National Map 2023

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

OTHER AREAS OF FLOOD HAZARD
- 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
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

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The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

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