DRAFT

Dry Creek Road Bridge Replacement Project

Initial Study/Mitigated Negative Declaration

Prepared for:

Napa County Department of Public Works
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Napa, CA 94559

Prepared by:

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December 2021

GPA Consulting. December 2021. *Dry Creek Road Bridge Replacement Project Initial Study/Mitigated Negative Declaration*. Prepared for Napa County Department of Public Works. Sacramento, CA

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List of Acronyms

AASHTO	Association of State Highway and Transportation Officials
AB	Assembly Bill
ACBM	Asbestos Construction Building Materials
ADT	Average Daily Traffic
APE	Area of Potential Effects
APN	Assessor's Parcel Number
AQMP	Air Quality Management Plan
AW	Agricultural Watershed
Bay Area CAP	Bay Area Clean Air Plan
BAAQMD	Bay Area Air Quality Management District
BMP	Best Management Practices
Bridge	Dry Creek Road Bridge
BSA	biological study area
BSC	Building Standards Commission
CAAQS	California Ambient Air Quality Standards
CAC	Certified Asbestos Consultant
CAL FIRE	California Department of Forestry and Fire Protection
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CGS	California Geological Survey
CIP	Cast-in-place
CNDDB	California Natural Diversity Database

CO	Carbon monoxide
CO_2	Carbon dioxide
County	County of Napa Department of Public Works
CRHR	California Register of Historical Resources
CWA	Clean Water Act
dBA	A-weighted Decibels
DBH	Diameter at Breast Height
DTSC	Department of Toxic Substances Control
EO	Executive Order
ESA	Environmentally Sensitive Area
FCAA	Federal Clean Air Act
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
GHG	Greenhouse Gas
HBRRP	Highway Bridge Replacement and Rehabilitation Program
HCP	Habitat Conservation Plan
IS/NMD	Initial Study/ Mitigated Negative Declaration
LCFS	Low Carbon Fuel Standard
MBTA	Migratory Bird Treaty Act
MND	Mitigated Negative Declaration
MLD	Most Likely Descendant
MRZ	Mineral Resource Zone
msl	Mean sea level
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
Napa County BDR	Napa County Baseline Data Report
NCSD	Napa County Sheriff's Department
NHPA	National Historic Preservation Act
NVTA	Napa Valley Transportation Authority

NO_2	Nitrogen Dioxide
NO_X	Nitrogen Oxide
NPDES	National Pollutant Discharge Elimination System
NWIC	Northwest Information Center
O_3	Ozone
OHWM	Ordinary High-Water Mark
Pb	Lead
$PM_{2.5}$	Particulate matter 2.5 microns or less in diameter
PM_{10}	Particulate matter 10 microns or less in diameter
ppm	Parts per Million
PRC	Public Resources Code
project	Dry Creek Bridge Replacement Project
ROG	Reactive Organic Gases
ROW	Right-of-Way
RSP	Rock Slope Protection
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCS	Sustainable Communities Strategy
SGMA	Sustainable Groundwater Management Act
SIP	State Implementation Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminants
TCE	Temporary Construction Easement
TCR	Tribal Cultural Resource
TMDL	Total Maximum Daily Load
US	United States
USACE	United States Army Corps of Engineers
US EPA	United States Environmental Protection Agency
USGS	United States Geological Survey

USFWS	United States Fish and Wildlife Service
WDR	Waste Discharge Requirements

I. Introduction

The Napa County Department of Public Works (County) has prepared this Initial Study/Mitigated Negative Declaration (IS/MND) to provide the public, responsible agencies, and trustee agencies with information about the potential environmental effects of the proposed Dry Creek Road Bridge Replacement Project (project).

1. Introduction

The County, in cooperation with the California Department of Transportation (Caltrans), proposes to replace the existing structurally deficient Dry Creek Road Bridge (bridge) over Dry Creek as a part of the Highway Bridge Replacement and Rehabilitation Program (HBRRP). The bridge (Bridge No. 21C0056) is 0.8 miles west of Mt. Veeder Road and spans over Dry Creek in an unincorporated rural area of Napa County, California.

Legal Authority and Findings

The County is the Lead Agency pursuant to CEQA. The County has prepared this IS/MND in accordance with the Guidelines for the Implementation of CEQA (CEQA Guidelines) (CCR, Title 14, Chapter 3, Sections 15000 et seq.). Although consultants assisted in the preparation of this IS/MND, all analysis, conclusions, findings and determinations presented in the IS/MND represent the County, acting as the Lead Agency under CEQA. In accordance with the provisions of CEQA and the State and local CEQA Guidelines, the County, as the Lead Agency, is responsible for reviewing the potential environmental effects, and after consideration, approving or denying the project.

2. Intent and Scope of this Document

The County, as the lead agency under CEQA, will consider the potential environmental impacts of project activities when it considers whether to approve the project. This IS/MND is an informational document to be used in the local planning and decision-making process. The IS/MND does not recommend approval or denial of the project.

The IS/MND describes the project and its environmental setting, including the project area's existing conditions and applicable regulatory requirements. This IS/MND also evaluates potential environmental impacts from the project on the following resources:

Aesthetics	Greenhouse Gas Emissions	Public Services
Agricultural and Forestry Resources	Hazards and Hazardous Materials	Recreation
Air Quality	Hydrology and Water Quality	Transportation
Biological Resources	Land Use and Planning	Tribal Cultural Resources
Cultural Resources	Mineral Resources	Utilities and Service Systems
Energy	Noise	Wildfire
Geology and Soils	Population and Housing	Mandatory Findings of Significance

The project incorporates measures to ensure there would be no significant adverse impacts on the environment.

3. Organization of this Document

This Initial Study is organized into eight sections, as follows:

Section I, Introduction: This section provides an overview of the project and the CEQA environmental documentation process.

Section II, Project Description: This section provides a description of the project location, project background, and project components.

Section III, Environmental Factors Potentially Affected: This section presents the environmental checklist used to evaluate the project's potential environmental effects. The checklist is based on the information provided in Appendix G of the state's CEQA Guidelines and Napa County's CEQA Guidelines.

Section IV, Determination: This section provides the recommended environmental documentation for the project.

Section V, Evaluation of Environmental Impacts: This section provides a detailed discussion of the environmental factors that could be affected by this project. Any mitigation measures that would be implemented to ensure that potential adverse impacts of the project would be reduced to a less-than-significant level are also included in this section.

Section VI, Preparers: This section provides a list of key personnel involved in the preparation of this report and key personnel consulted.

Section VII, References: This section provides a list of reference materials used during the preparation of this report.

Section VIII, Technical Studies: This section provides a list of the technical studies used during the preparation of this report.

4. Terminology

This IS/MND uses the following terminology to describe environmental effects of the project:

- A finding of no impact is made when the analysis concludes that the project would not affect the particular environmental resource or issue.
- An impact is considered less than significant if the analysis concludes that there would be no substantial adverse change in the environment and that no mitigation is needed.
- An impact is considered significant if it results in a substantial adverse change in the physical conditions of the environment. Significant impacts are identified by using specific significance criteria as a basis of evaluation. Mitigation measures are identified to reduce these potential effects on the environment.
- This IS/MND identifies particular mitigation measures that are intended to lessen project impacts. The State CEQA Guidelines [Section 14 of the CCR 15370] define mitigation as:
    - avoiding the impact altogether by not taking a certain action or parts of an action;
    - minimizing impacts by limiting the degree or magnitude of the action and its implementation;
    - rectifying the impact by repairing, rehabilitating, or restoring the impacted environment;
    - reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and
    - compensating for the impact by replacing or providing substitute resources or environments.

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II. Project Description

1. Project Title

Dry Creek Road Bridge Replacement Project

2. Lead Agency Name and Address

Napa County Public Works Department
1195 Third Street, Suite 101
Napa, CA 94559

3. Project Sponsor

Napa County Public Works Department
1195 Third Street, Suite 101
Napa, CA 94559

4. Contact Person

Graham S. Wadsworth, P.E.
Engineering Supervisor
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Graham.Wadsworth@countyofnapa.org

5. Project Location

The Dry Creek Bridge Replacement Project is located on Dry Creek Road, within a largely undeveloped and rural portion of Napa County, California (see **Figure 1**). The bridge (Bridge No. 21C0056) is 0.8 mile west of Mt. Veeder Road and spans over Dry Creek in an unincorporated rural area of Napa County, California (see **Figure 2** and **Figure 3**). The County does not have ROW at the existing approach roadway and within Dry Creek. Portions of the existing roadway and bridge are within County ROW. It is anticipated that the increased width of the new bridge and realignment of the roadway could require additional easement from adjacent properties, including assessor's parcel numbers (APN) 027-330-002, 027-330-010, 027-330-015, 027-330-017, 027-530-003, and 027-530-004. Additionally, TCEs may be needed from the identified parcels during project construction to construct the new bridge.

6. General Plan Designation and Zoning

The project area is zoned "Agricultural Watershed (AW)" and designated as "Agriculture, Watershed, and Open Space" in the 2008-2030 Napa County Land Use Plan. (County of Napa, 2016; Napa County, 2015).

7. Project Description

The County, in cooperation with the Caltrans, proposes to replace the existing structurally deficient bridge over Dry Creek as part of the Highway Bridge Program (see Figure 1).

Project History

The bridge was originally built in 1920 at the western leg of a hairpin curve on Dry Creek Road where it intersects with Dry Creek Fork Road. The existing structure has been rated as structurally deficient.

Within the Structure Inventory and Appraisal Report in the Highway Bridge Replacement and

Rehabilitation application the following recommendations have been made:

- 2003 work recommendation to repair metal beam guard rails (MBGR).
- 2005 work recommendation to repair retaining wall.
- Scour Plan of Action dated 11/1/2008 submitted and archived (still valid).
- 2001 and 2005 work recommendations provide scour countermeasures.

Project Purpose

The purpose of the project is to provide a safe, functional, and reliable crossing over Dry Creek on Dry Creek Road.

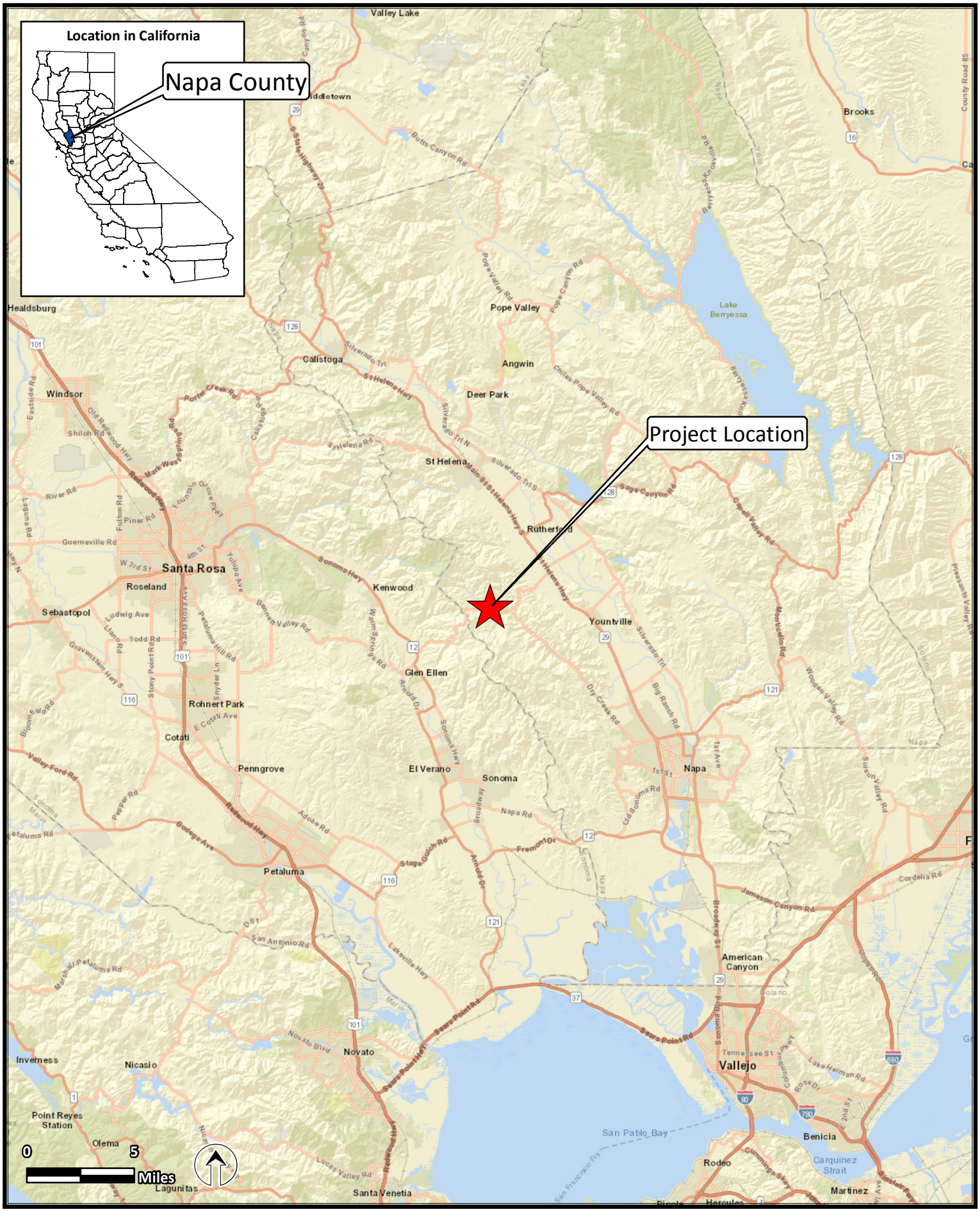
Project Need

The existing bridge is structurally deficient and is located in a seismically active region of northern California that includes several active faults capable of producing earthquakes and may cause strong ground shaking in the project area.

The following deficiencies have been observed:

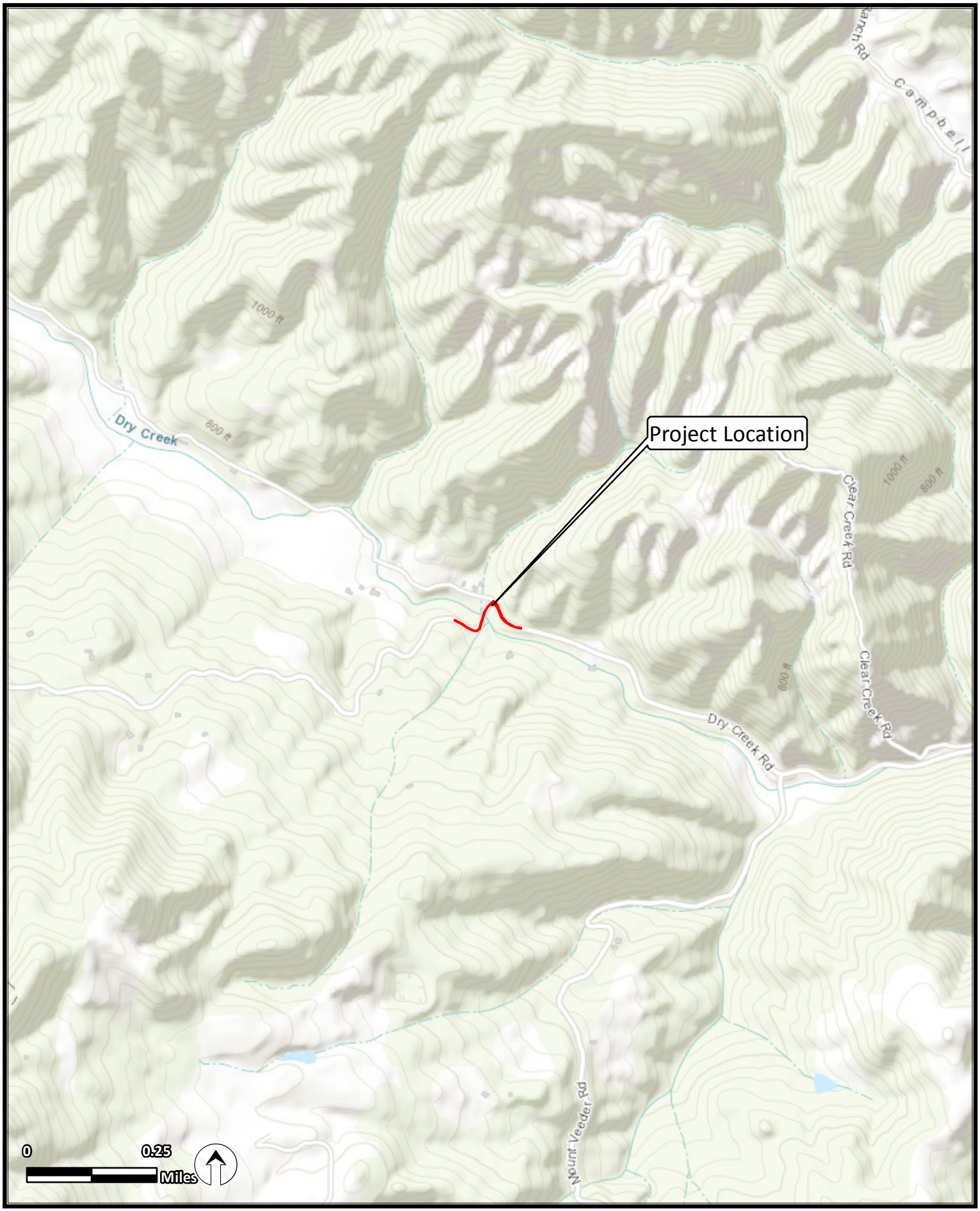
- The substructure has deterioration consisting of cracking and weathering of the mortar in the joints of the stone masonry abutments. The top section of the retaining wall near Abutment Two has broken away and is leaning outward horizontally.
- There are two spalls (i.e. chipped material from corrosion, weathering, impacts, etc.) with exposed rebar on the exterior girder of Abutment Two. Rock pockets are scattered throughout the soffit (i.e. underside) and girders.
- The deck asphalt concrete overlay has potholes in the southbound direction for the right wheel line at Abutment One and the left wheel line at midspan. In addition, the width of the bridge does not meet standard lane and shoulder widths (i.e. minimum American Association of State Highway and Transportation Officials (AASHTO) standards for lane widths is 11 feet, the existing lane width on the bridge is nine feet).
- The approach MBGRs at Abutment Two have sustained traffic hits. Damage includes missing timber blocking, ripped MBGR, out of plumb timber posts, and loose rail connections. The soil in which the timber posts are embedded has diminished lateral support due to the deterioration of the retaining wall.
- The bridge is identified as “unstable for calculated scour” for National Bridge Inventory Element 113, Scour Critical Bridges. Water is seeping through the abutment and leaking steadily onto the scoured area underneath the wall.

Additionally, the current alignment of Dry Creek Road as it approaches the bridge does not provide for a clear sight line for approaching vehicles and does not meet current AASHTO or Caltrans standards.



Sources: ESRI 2018.

FIGURE 1: REGIONAL LOCATION
Dry Creek Road Bridge Replacement Project



Sources: ESRI 2018.

FIGURE 2: PROJECT LOCATION
Dry Creek Road Bridge Replacement Project

Sources: BKF Engineers 2020; ESRI 2021.

FIGURE 3: PROJECT FOOTPRINT
Dry Creek Road Bridge Replacement Project

Existing Conditions

The project area is largely undeveloped and rural with several rural residential properties located along Dry Creek Road and Dry Creek Fork Road. The residential structures in the project vicinity are between approximately 250 feet and 600 feet from the existing bridge. No residences are visible from the existing bridge.

The bridge is a 34-foot long single span, reinforced concrete structure with "T" girders supported on cemented stone masonry abutments founded on erodible bedrock. The bridge is a single lane bridge with no shoulders that carries 2-way traffic. The approximate total bridge width is 20.5 feet while the structure curb-to-curb width is approximately 18 feet.

In the project area, Dry Creek Road is classified as a rural minor collector. The existing bridge and roadway approach are on a winding road alignment with limited views to and from the bridge because of the angle of the roadway and bridge, and trees and vegetation surrounding the roadway and bridge.

Within the project area, Dry Creek is a natural, un-lined waterway with medium to heavily vegetated banks and a rocky/cobbly creek bed. Several areas along the creek are lined with steep slopes and dense vegetation, such as poison oak, making the creek inaccessible at these locations.

Surrounding Land Uses

The project area is zoned "Agricultural Watershed (AW)" and designated as "Agriculture, Watershed, and Open Space" in the 2008-2030 Napa County Land Use Plan (Napa County, 2015) (Napa County, 2016). The immediate area surrounding the project area includes mostly rural private residential uses and vineyards. The nearest recreational uses include Jack London State Historic Park, approximately 5.1 miles to the southwest, and Lake Hennessey City Recreation Area, approximately 8.1 miles to the northeast.

Proposed Project

The County proposes to replace the existing bridge structure on a new straight roadway alignment; the existing bridge and roadway would be removed while maintaining access to the properties along Dry Creek Road and Dry Creek Fork Road. The new bridge would be constructed along a roughly east-west alignment located approximately 150 feet south of the existing bridge in order to straighten the bridge approach and bypass the hairpin curve segment of Dry Creek Road. Project activities would require the removal of vegetation along the proposed roadway and bridge alignment.

The following improvements are proposed:

- The new structure would be single span and approximately 32 feet wide with two 11-foot lanes (one in each direction) and 3-foot shoulders on each side of the bridge.
- The new bridge would be approximately 81 feet in length, which is approximately 50 feet longer than the existing structure.
- The bridge structure would consist of a precast-prestressed concrete wide flange girder bridge. The structure would consist of a single span with four precast Wide Flange girders utilizing a cast-in-place (CIP) concrete deck. The CIP concrete deck would be placed on stay-in-place metal corrugated deck forms and would not require falsework within the creek to construct the bridge deck.
- Standard Caltrans concrete barriers would be utilized with tubular bicycle railing on each side of the bridge deck.

- A new 15-foot high embankment is proposed for the west approach.
- The proposed bridge substructure would consist of short seat abutments at proposed Abutment One and high cantilever abutment at proposed Abutment Two, both founded on two rows of Caltrans standard 24-inch Cast-in-Drilled-Hole (CIDH) piles. All excavation for the abutments and CIDH piles construction within the channel banks would remain outside of the 100-year water surface elevation.
- Access to existing properties would be maintained during construction and a permanent connector would be provided with the new structure.
- The approach to and from the bridge would be widened from 22 feet to 28 feet.
- Construction of the project would require excavation for new bridge abutments to a depth of approximately seven feet.
- Rock slope protection (RSP) would be placed in front of the proposed abutments to protect against scour. The bridge structural system would be designed assuming no RSP to ensure no collapse in the event of scoured abutment condition. The RSP would extend 25 feet beyond the edge of the bridge deck both upstream and downstream.
- A Stormwater bioretention basins would be constructed west of Dry Creek and between the existing and proposed bridges.

The existing bridge and abutments would be removed. At existing Abutment One (south side), the channel slope would be restored using a "soil burrito"[1] to re-establish the natural channel vegetation. At existing Abutment Two, regrading would not be necessary because it is founded on rock, which is scour resistant. The south side of the creek bank at the existing bridge would be regraded to a lesser slope (to approximately 4:1 or 3:1 slope), which would require some excavation, and "soil burritos" would be placed on top of the new slope and staked into place.

The portion of the road between the existing bridge and the proposed new roadway to the south would be demolished. The contractor would abandon a portion of the existing roadway north of the existing bridge; the abandoned roadway would become a private road to connect only to Dry Creek Fork Road, which is currently an existing private road.

Utilities

One 3-inch diameter AT&T conduit would be relocated from the existing bridge and suspended from the deck between two girders on the north side of the proposed bridge. No other utilities have been identified that would require relocation.

Right of Way

Portions of the existing roadway and bridge are within County right-of-way (ROW). It is anticipated that the increased width of the new bridge, and realignment of the roadway could require ROW acquisition from adjacent properties, including assessor's parcel numbers (APN) 027-330-002, 027-330-010, 027-330-015, 027-330-017, 027-530-003, and 027-530-004 (see **Figure 4**). Some Temporary Construction Easements (TCE) may be needed.

Anticipated Construction Schedule and Methods

Project construction is anticipated to take approximately 18 months (over two construction seasons); this

[1] A soil burrito is a layer of dirt wrapped into a large piece of burlap.

includes 13 months of actual work and five months of downtime between the two construction seasons. A construction season is typically defined as the combined spring, summer, and fall of any year. Full closure of Dry Creek Road may not be permissible during construction because the shortest detour route would be approximately 40 miles. Therefore, the bridge replacement and roadway realignment would be conducted in four stages. The four stages of construction are as following:

- **Stage 1 (approximately five months, anticipate initiating in first year):** During Stage 1 construction, the new bridge over Dry Creek, approximately 100 feet of the roadway approach in each direction, and 200 feet of the access road would be constructed. Approximately 200 feet of the new roadway west of the new bridge, grading for the new roadway sections, and the temporary roadway sections would be built. Temporary roadway sections would be required to allow one lane of traffic through in each direction during Stage 2 of construction. Throughout Stage 1 construction, the existing Dry Creek Road would remain open to traffic in both directions. Temporary channelizers would be placed to protect construction crew from traffic during construction.
- **Stage 2 (approximately two months, anticipate initiating in first year):** During Stage 2 construction, approximately 50 feet of the new roadway west of the new bridge, grading for the new roadway section, and a temporary ramp from the existing road up onto the new roadway section would be built. The temporary ramp would allow for drivers to detour onto the new roadway section during Stage 3 of construction. Dry Creek Road would remain open to traffic with the temporary pavement from Stage 1 providing an adequate width for drivers. Temporary k-rail would be placed to protect construction crew from traffic during construction. Access to Driveways 2 and 3 [APN 027-330-015 and 027-330-017] would be provided at all times by the Contractor.
- **Stage 3 (approximately three months, anticipate initiating in second year):** During Stage 3 construction, the existing bridge and the temporary pavement would be demolished. Approximately 50 feet of proposed new roadway alignment, the remaining access road, the vegetated soil layers and toe rock at the existing bridge, and the bioretention area near the existing bridge would be constructed. Traffic would shift from the old Dry Creek Road to the new Dry Creek Road using the ramp constructed during Stage 2. Temporary K-railing would be placed to protect personnel from traffic during construction.
- **Stage 4 (approximately three months, anticipate initiating in second year):** During Stage 4 construction, one lane per direction would need to be maintained during the day with construction occurring at night with a full road closure. The remaining Dry Creek Road, the Midwest guardrail system, the grind and overlay for Driveway 4, the access for Driveway 2 and 3, and the southern bioretention area would be constructed. Access to the properties adjacent to the project area would need to be maintained during the day. All temporary pavement would be removed.

Responsible and Trustee Agencies

Responsible Agencies: California Department of Fish and Wildlife (CDFW), United States Army Corps of Engineers (USACE), and Regional Water Quality Control Board (RWQCB)

Trustee Agencies: CDFW

Discretionary Actions And Approvals

The County is the lead agency for the proposed project. The discretionary and ministerial actions associated with the development of the project include, but are not limited to, the following:

- The project would result in temporary and permanent impacts on non-wetland waters under jurisdiction of USACE and RWQCB; therefore, a Clean Water Act (CWA) Section 404 Nationwide 14 Permit and a CWA Section 401 Water Quality Certification would be required.
- The project would result in temporary and permanent impacts on waters under jurisdiction of the CDFW; therefore, a California Fish and Game Code Section 1602 Streambed Alteration Agreement (SAA) is anticipated.
- Consultation with the National Marine Fisheries Service (NMFS) to discuss potential effects on steelhead and steelhead critical habitat.

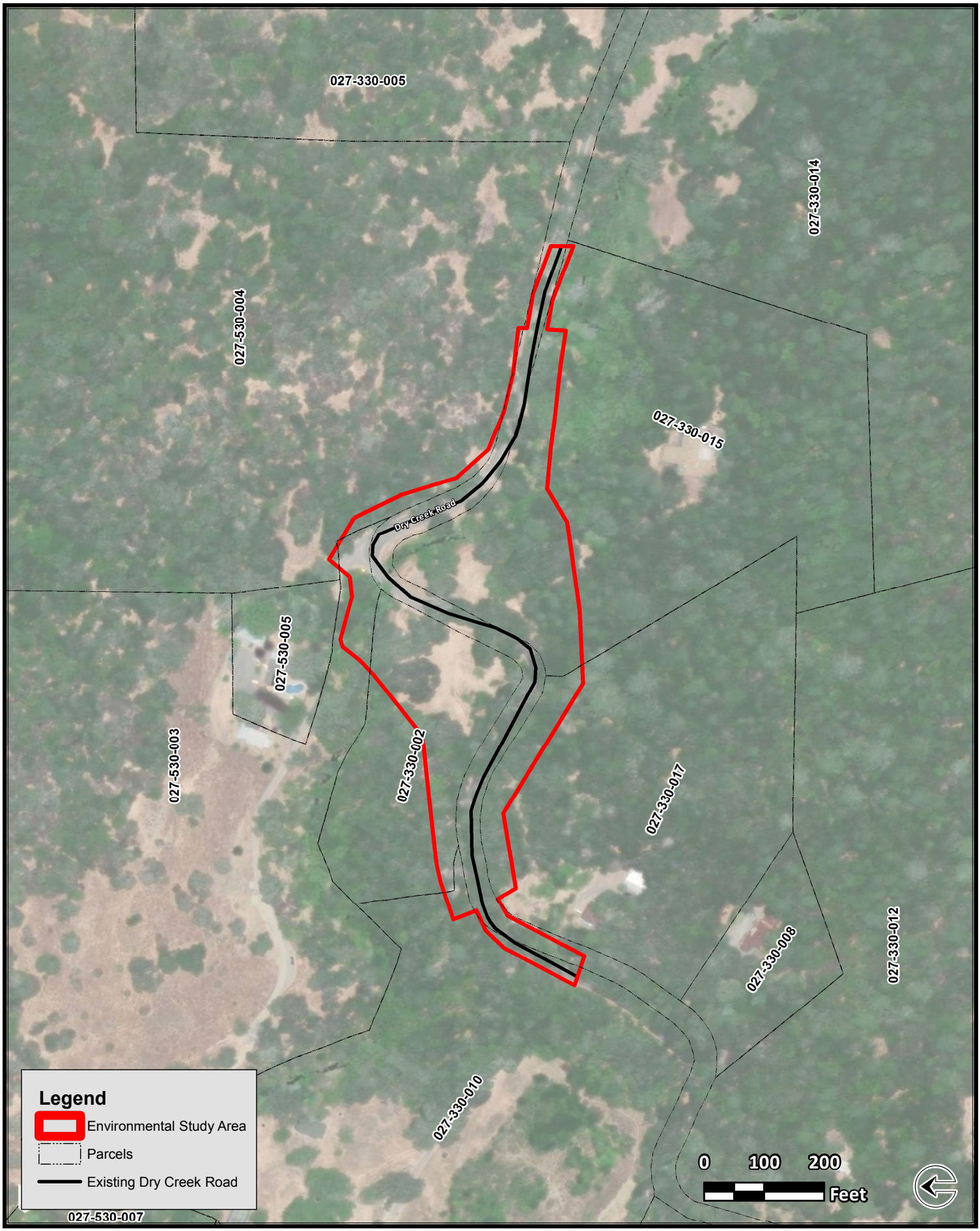


FIGURE 4: PROJECT AREA PARCELS
Dry Creek Bridge Replacement Project

III. Environmental Factors Potentially Affected

Environmental factors that are checked contain at least one impact that has been determined to be a "Potentially Significant Impact". Environmental factors unchecked indicate that impacts were determined to have resulted in no impacts, less than significant impacts, or less than significant impacts with mitigation measures or County Standard Conditions of Approval incorporated into the project.

☐ Aesthetics	☐ Greenhouse Gas Emissions	☐ Public Services
☐ Agriculture & Forestry Resources	☐ Hazards & Hazardous Materials	☐ Recreation
☐ Air Quality	☐ Hydrology & Water Quality	☐ Transportation
☐ Biological Resources	☐ Land Use & Planning	☐ Tribal Cultural Resources
☐ Cultural Resources	☐ Mineral Resources	☐ Utilities & Service Systems
☐ Energy	☐ Noise	☐ Wildfire
☐ Geology & Soils	☐ Population & Housing	☐ Mandatory Findings of Significance

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IV. Determination

The conclusions and recommendations contained herein are professional opinions derived in accordance with current standards of professional practice. They are based on a review of the Napa County Environmental Resource Maps, the other sources of information listed in the file, and the comments received, conversations with knowledgeable individuals; the preparer's personal knowledge of the area; and, where necessary, a visit to the project area. For further information, see the environmental background information contained in the permanent file on this project.

On the basis of this initial evaluation:

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

☒ I find that although the Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Project have been made by or agreed to by the Project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

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

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

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

_____ _____

Signature Date

Name:_____
Napa County Public Works Department

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V. Evaluation of Environmental Impacts

Potential environmental effects of the project are classified and described within the CEQA Environmental Checklist under the following general headings:

"No Impact" applies where the impact simply does not apply to projects like the one involved. For example, if the project area is not located in a fault rupture zone, then the item asking whether the project would result in or expose people to potential impacts involving fault rupture should be marked as "No Impact."

"Less Than Significant Impact" applies where the impact would occur, but the magnitude of the impact is considered insignificant or negligible. For example, a development which would only slightly increase the amount of surface water runoff generated at a project area would be considered to have a less than significant impact on surface water runoff.

"Potentially Significant Unless Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." Incorporated mitigation measures should be outlined within the checklist and a discussion should be provided which explains how the measures reduce the impact to a less than significant level. This designation is appropriate for a Mitigated Negative Declaration, where all potentially significant issues have been analyzed and mitigation measures have been recommended that reduces all impacts to levels that are less than significant.

"Potentially Significant Impact" applies where the project has the potential to cause a significant and unmitigable environmental impact. If there are one or more items marked as "Potentially Significant Impact," an EIR is required.

1. Aesthetics

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
	Except as provided in Public Resources Code (PRC) Section 21099, 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.	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d.	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Regulatory Setting

Local Regulations

Napa County General Plan

The General Plan (General Plan) identifies aesthetics as an important factor contributing to the county's "community character," and includes goals and policies the directly influence proposed projects within the county. In addition, the County has adopted a Viewshed Protection Ordinance that has been established to protect aesthetic quality for both visitors and residences of the county.

Community Character:

- **Goal CC-1:** Preserve, improve, and provide visual access to the beauty of Napa County.
- **Goal CC-2:** Continue to promote the diverse beauty of the entire county since this beauty is intricately linked to the continued economic vitality of the region and benefits residents, businesses and visitors.
- **Goal CC-6:** Preserve and enhance the night environment of the County's rural areas and prevent excessive light and glare.
    - **Policy CC-6:** The grading of building sites, vineyards, and other uses shall incorporate techniques to
        - retain as much as possible a natural landform appearance. Examples include:
            - The overall shape, height, and grade of any cut or fill slope shall be designed to simulate the existing natural contours and scale of the natural terrain of the site.
            - The angle of the graded slope shall be gradually adjusted to the angle of the natural terrain.
            - Sharp, angular forms shall be rounded and smoothed to blend with the natural terrain.

- **Policy CC-8:** Scenic roadways which shall be subject to the Viewshed Protection Program are those shown in Figure CC-3, or designated by the Board of Supervisors in the future.
- **Policy CC-10**: Consistent with the County's Viewshed Protection Program, new developments in hillside areas should be designed to minimize their visibility from the County's scenic roadways and discourage new encroachments on natural ridgelines. The County shall continue implementation of the Viewshed Protection Program and shall apply the protective provisions of the program to all public projects.
- **Policy CC-13**: The County's roadway construction and maintenance standards and other practices shall be designed to enhance the attractiveness of all roadways and in particular scenic roadways. New roadway construction or expansion shall retain the current landscape characteristics of County-designated scenic roadways, including retention of existing trees to the extent feasible and required re-vegetation and re-contouring of disturbed areas. In addition:
  - The development of hiking trails and bicycle lanes should be coordinated, when possible, with scenic roadway corridors and should provide access for the elderly and disabled in accordance with the Americans with Disabilities Act.
  - A program to replant trees and shrubbery should be implemented in cases where they are removed during new roadway alignment.
  - Opportunities should be explored for joint public/private participation in developing locations for roadside rests, picnic areas and vista points.
  - Installation of landscaping shall be required in conjunction with major roadway improvements where necessary to screen existing residences from glare generated by vehicle headlights.
- **Policy CC-31*:*** The County considers nighttime darkness to be an integral part of the character of the County's rural areas.
- **Policy CC-32:** Street lighting on County roadways shall be limited to the minimum amount needed for public safety and shall be designed to focus light only where it is needed.

Circulation:

- **Goal CIR-1**: The County's transportation system shall be correlated with the policies of the Agricultural Preservation and Land Use Element and protective of the County's rural character.
- **Goal CIR-2**: The County's transportation system shall provide for safe and efficient movement on well-maintained roads throughout the County, meeting the needs of Napa County residents, businesses, employees, visitors, special needs populations, and the elderly.
  - **Policy CIR-7**: Roadway improvements shall be designed to conform to existing landforms and shall include landscaping and/or other treatments to ensure that aesthetics and rural character are preserved.
  - **Policy CIR-9**: The County supports beautification programs for roadways in the unincorporated area. Roadway beautification shall be consistent with the character of the area in which the roadway is located and with other County policies related to preserving the character of the county including policies on signage as defined in the Community Character Element.

Napa County Road and Street Standards

The *Napa County Road and Street Standards* were adopted April 27, 1991, with the most recent revision circulated April 23, 2019 (Napa County, 2021a). The standards were developed to meet the interests of several agencies, with objectives that include, but are not limited to, preserving natural landscapes and aesthetic features; providing adequate safety and service; providing low maintenance cost road facilities; and minimizing impacts on environmentally sensitive areas and water quality. The standards include design criteria and requirements for roadways and roadway structures.

The California Board of Forestry and Fire Protection (BOF) is currently updating the minimum wildfire protection standards, commonly known as the California Fire Safe Regulations (FSR). One of the purposes of the FSRs is to establish the State's minimum fire protection standards for emergency ingress and egress. The updated FSRs have been released by the BOF and are in the formal public review and comment phase of their rule-making process and are expected to be adopted later this year or in early 2022. Once formally adopted by the BOF, the County's Road and Street Standards will be required to be updated with the new regulations (Napa County, 2021).

Napa Landscaping Ordinance

Chapter 18.40.110 of the County's Municipal Code implements measures to protect existing vegetation and trees during construction activity. The ordinance includes the following measures:

1. No existing trees or limbs larger than three inches in diameter shall be removed unless authorized in writing, in advance of removal by the director or as may be authorized by site plan or discretionary permit approval.
2. All existing trees and sizes shall be shown on site plans submitted for project review and incorporated into project design.
3. Removal of any tree species over eight inches in circumference will require the planting of the same species of tree at a ratio equal to two times the caliper inches of the removed tree (for example: a ten-inch oak removed from the site would require two ten-inch trees; or four five-inch trees, or ten two-inch trees as equivalent replacement). Replacement trees shall be a minimum of two inches in diameter.
4. Any tree removed without prior written authorization or approval shall be replaced at a rate equal to four times the caliper inches of the removed tree.
5. Disturbance under the drip line of any tree required to be retained is prohibited. Such disturbance includes grading or grade alteration, storage, tilling or any other alteration of the soil, water or aeration properties necessary for tree survival and health.
6. All vegetation required to be retained shall be protected during the construction phase utilizing fencing or other devices approved by the department. Said devices shall be in place prior to issuance of building permits or other administrative approvals.

Napa Conservation Regulations

Chapter 18.108 of the County's Municipal Code implements regulations to protect the public health, safety and community welfare, and to otherwise preserve the natural resources of the county. The regulations include provisions for: vegetation retention and removal, setbacks for earthmoving activity near waterways, slopes, and erosion control.

Environmental Setting

The project is located in a rural portion of Napa County. The project area and its surroundings are comprised of rural-residential properties, Dry Creek Road and bridge, Dry Creek, and three vegetative communities. The terrain immediately surrounding the current bridge is primarily flat with dense trees and grasslands including Mixed Oak Forest, California Bay Forest, and Annual Brome Grassland, with a steep slope north of the bridge and to the northeast of the hairpin turn along Dry Creek Road.

Scenic Highways

The County General Plan (General Plan) identifies over 280 miles of County-designated scenic roadways; however, none have been officially designated as Scenic Highways by the State of California. Although several segments of Highway 29 are eligible for state designation, the County has not pursued inclusion in the State Scenic Highway Program at this time. Instead, the General Plan has an adopted a Viewshed Protection Program which contains polices aimed at protecting the County-designated scenic roadways. These policies are primarily focused on ensuring aesthetic compatibility of new development or infrastructure constructed along these sensitive corridors. Dry Creek Road is identified as a scenic roadway under the General Plan (Napa County Department of Conservation, Development and Planning, 2008).

Viewer Groups

Land on both sides of the project area are privately-owned; other than the roadway, there is no publicly accessible land in the project area. Viewer groups may include motorists and bicyclists traveling on Dry Creek Road. These viewers may include persons who live or work in the area, tourists, or people traveling to nearby recreation destinations. Single-family residential homes located near the project area do not have a direct view of the bridge.

Discussion of Checklist Responses

a. Would the project have a substantial adverse effect on a scenic vista?

Less than Significant Impact. Dry Creek Road has been identified as a scenic roadway subject to the Viewshed Protection Program(Napa County, 2008). The General Plan repeatedly identifies scenic beauty as one of the county's most important and characteristic attributes. Therefore, this analysis treats all vistas in the project area as scenic vistas and evaluates them in the context of proposed changes to existing visual character or quality.

Construction of the project could cause temporary visual impacts in the form of vegetation and tree removal, earthwork, and equipment staging. Vegetation removal would be limited to only what is required for bridge removal, new bridge installation, and project completion.

Once construction is complete, vegetation within temporarily impacted areas would require time to reestablish. However, planting juvenile saplings within a disturbed oak woodland can take decades to restore the functions of the removed mature trees, such as the California black oak and oracle oak, which typically take 30 years to begin producing acorns; therefore, avoidance and minimization measures **AVM-BIO-52** through **AVM-BIO-55** (see *Section 4. Biological Resources*) would be implemented in order to avoid impacts to oak woodland. In addition, measures to aid in vegetation reestablishment have been identified and would be implemented post construction. For example, at one existing abutment (Abutment One), the channel slope would be restored using a "soil burrito" and root wad system to reestablish the natural channel vegetation. Therefore, impacts would be less than significant.

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Less Than Significant Impact. Dry Creek Road has been identified as a scenic roadway subject to the Viewshed Protection Program in the General Plan (Napa County, 2008). The roadway is lined with a diverse array of shrubs and mature trees associated with riparian and oak woodland habitats, which include but are not limited to California buckeye, California bay, black elderberry, white alder, and coast live oak, and the topography of the roadway is flat.

The project would require vegetation removal and ground disturbance in the areas surrounding the existing bridge and proposed retaining walls. Vegetation removal would be avoided to the maximum extent possible and would be limited to the immediate project area. Following construction, disturbed soil would be revegetated using hydroseeding as a general erosion control.

Additionally, as described above, construction of the project would result in temporary visual impacts associated with vegetation removal along the roadway and onsite storage of construction materials and debris; however, these impacts would be temporary, and following construction, the area would largely be restored to pre-project conditions, which consists of a diverse array of shrubs and mature trees associated with riparian and oak woodland habitats. Therefore, impacts to scenic resources along the Dry Creek Road corridor would be less than significant.

c. Would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point).

Less than Significant Impact. Sensitive viewer groups potentially affected by project construction would include motorists and, potentially, bicyclists. The project area is visible from nearby rural residential properties. Views of the project area include a transportation facility (a single lane bridge and a two-lane roadway). The project would replace the existing bridge with a single span, two-lane bridge. The proposed bridge would be approximately 11.5 feet wider and 30 feet longer than the existing bridge and located on a new alignment. As previously stated in response (a), the new bridge structure was designed to have similar aesthetics to that of the current bridge.

Construction of the project would also include updated barriers and guardrails that would meet current design requirements, which would be of a slightly different visual character than the existing barriers. However, the proposed barriers and guardrails would not extend above the existing vertical elements; thus, views of the surrounding areas would not be blocked or distorted. In order to straighten the bridge approach and bypass the hairpin curve segment of Dry Creek Road, the new bridge would be constructed along an east-west alignment approximately 150 feet south of the existing bridge. This new roadway alignment would slightly alter the visual character of the project area as motorists would traverse the bridge in an east-west direction, rather than the existing north-south direction. However, views of the proposed bridge would be comparable in character and quality to existing views and the new bridge would result in an overall benefit to the project area.

The project would require vegetation removal within the Mixed Oak Forest community surrounding the existing bridge and the proposed roadway alignment. Construction activities associated with the cut/fill of the roadway alignment and equipment access would result in vegetation removal and temporary and permanent impacts on the Mixed Oak Forest community (see *Section 4. Biological Resources*). However, disturbed vegetation would be replaced following project completion. Views from the proposed bridge of surrounding landscape would be comparable in character and quality to existing views.

During construction of the project, staging and storage areas for vehicles, equipment, material, fuels, lubricants, and solvents would be restricted to designated areas located approximately 25 feet from the edge of the shoulder. The proposed staging area would be located adjacent to the proposed Dry Creek Road outside the limits of Dry Creek or any other environmentally sensitive areas. Impacts to the existing visual character or quality of the site and its surroundings, would be less than significant.

d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant Impact. The project is located along Dry Creek Road where the project area is unlit with minimal sources of light from nearby residential properties. The existing bridge and roadway approach are on a winding road alignment with limited views to and from the bridge because of the angle of the roadway and bridge, and trees and vegetation surrounding the roadway and bridge.

The new bridge would be similar to existing infrastructure in the area and would not include additional lighting or materials that could cause glare. Although the project would result in a new roadway alignment, the modified sources of light from motorists traveling in an east-west direction, rather than the existing north-south direction would not adversely affect day or nighttime views in the area.

Construction activities could result in the temporary generation of night lighting from construction vehicles and equipment. However, construction would be limited to a total of 18 months (over two construction seasons), which includes 13 months of actual work and five months of downtime between the two construction seasons, and construction lighting would not adversely affect any vehicles traveling through the project area. Additionally, following project construction, construction lighting would cease and return to existing conditions. Therefore, the project would result in less than significant impacts on lighting and glare.

Avoidance, Minimization, and/or Mitigation Measures

Measures **AVM-BIO-52** through **AVM-BIO-55** (see *Section 4. Biological Resources*) would be implemented to avoid and/or minimize impacts on Aesthetics.

2. Agriculture and Forestry Resources

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to 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 complied 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 forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resource 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 (FMMP) of the California Resources Agency, to nonagricultural use?	☐	☐	☐	☒
b.	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c.	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC section 12220(g)), timberland (as defined by PRC 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?	☐	☐	☐	☒

Regulatory Setting

State Regulations

Williamson Act

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, is a California law for farmland protection. The Williamson Act enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments which are much lower than normal because they are based upon farming and open space uses as opposed to full market value (California Department of Conservation, 2015). The intent of the Williamson Act is to encourage voluntary land conservation, particularly conservation of agricultural land in California. CEQA requires the review of projects that would convert Williamson Act contract land to non-agricultural uses.

Local Regulations

According to the General Plan, the following Goals and Policies are identified as related to agricultural and

forestry resources (Napa County Department of Conservation, Development and Planning, 2008).

- **Goal AG/LU-1:** Preserve existing agricultural land uses and plan for agriculture and related activities as the primary land uses in Napa County.
    - **Policy AG/LU-1:** Agriculture and related activities are the primary land uses in Napa County.
    - **Policy AG/LU-2:** "Agriculture" is defined as the raising of crops, trees, and livestock; the production and processing of agricultural products; and related marketing, sales and other accessory uses. Agriculture also includes farm management businesses and farm worker housing.
    - **Policy AG/LU-4**: The County will reserve agricultural lands for agricultural use including lands used for grazing and watershed/open space, except for those lands which are shown on the Land Use Map as planned for urban development.
    - **Policy AG/LU-12**: No new non-agricultural use or development of a parcel located in an agricultural area shall be permitted unless it is needed for the agricultural use of the parcel, except as provided in Policies AG/LU-2, AG/LU-5, AG/LU-26, AG/LU-44, AG/LU-45, and ROS-1.

Environmental Setting

The project area is in a rural area of Napa County that is largely undeveloped. The project area and properties surrounding the Dry Creek Bridge are zoned Agricultural Watershed (AW) and designated as Agriculture, Watershed, and Open Space in the 2008-2030 Napa County Land Use Plan (Napa County, 2015; Napa County, 2016). According to the Napa County Code of Ordinances Section 18.20.010, property zoned as AW is intended for parcels where the predominate use is agriculturally oriented, or where watershed areas are found, and where development would adversely impact such uses. The nearest agricultural use, which is associated with APN 027-320-014-000, includes a vineyard located approximately 0.5 mile southwest of the project area.

According to the 2016 Napa County Important Farmland Map, the most recent map issued by the California Department of Conservation for the county, parcels in and adjacent to the project area are designated as "Other Land", land that is not included in any farmland mapping category (California Department of Conservation, 2017). None of the parcels within and adjacent to the project area are subject to protection under the Williamson Act (California Department of Conservation, 2015).

Discussion of Checklist Responses

a. Would the project 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 (FMMP) of the California Resources Agency, to nonagricultural use?

No Impact. The County does not have ROW at the existing approach roadway and within Dry Creek. Portions of the existing roadway and bridge are within County ROW. It is anticipated that the increased width of the new bridge and realignment of the roadway could require additional easement from adjacent properties, including assessor's parcel numbers (APN) 027-330-002, 027-330-010, 027-330-015, 027-330-017, 027-530-003, and 027-530-004. Additionally, TCEs may be needed from the identified parcels during project construction to construct the new bridge.

As stated in the environmental setting, according to the 2016 Napa County Important Farmland Map, parcels in and adjacent to the project area are designated as "Other Land", land that is not included in any farmland mapping category (California Department of Conservation, 2017). None of the parcels within and adjacent to the project area are subject to protection under the Williamson Act (California Department of Conservation, 2015). Therefore, there would be no impact.

b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The project area is zoned AW and designated as Agriculture, Watershed, and Open Space. Although agricultural land is present, as stated previously, the land is designated as "Other Land" by the California Department of Conservation. The project area and adjacent land are not subject to protection under the Williamson Act contract. Therefore, there would be no impact.

c. Would the project conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production?

Less Than Significant Impact. According to the United States Forest Service, the nearest forestlands are the Mendocino National Forest, located approximately 60 miles north of the project area, and the El Dorado National Forest, located approximately 130 miles east of the project area (United States Forest Service, 2019). The project area is zoned AW and does not contain forest or timberland. The project area is not zoned for forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or Timberland Production (as defined by Government Code section 51104(g)). Although construction of the project could require ROW from private parcels surrounding the project area, the purpose of the project is to replace a structurally deficient bridge along Dry Creek Road, and would not conflict with existing zoning for, or cause rezoning of, forest land or timberland near the project area. Therefore, impacts to timberland would be less than significant.

d. Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. As discussed in response c. above, the nearest forestlands are the Mendocino National Forest, located approximately 60 miles north of the project area, and the El Dorado National Forest, located approximately 130 miles east of the project area (United States Forest Service, 2019). Therefore, the project would not have an impact on forest land.

e. Would the project 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?

Less Than Significant Impact. As discussed in responses (a) and (d) above, the project would not permanently convert any Prime Farmland, Unique Farmland, or Farmland of Local or Statewide Importance to non-agricultural use. Additionally, the project area is not located near any forest land; thus, the project would not convert any forest land to non-forest use. Therefore, the project would not result in changes to any other existing environments near the project area. Therefore, impacts would be less than significant.

Avoidance, Minimization, and/or Mitigation Measures

None. The project would not require Avoidance, Minimization, and/or Mitigation Measures for Agriculture and Forestry Resources.

3. Air Quality

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
When available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the Project:					
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?	☐	☐	☒	☐

Regulatory Setting

Federal Regulations

Federal Clean Air Act

The National Ambient Air Quality Standards (NAAQS) were established by the Federal Clean Air Act of 1970 (FCAA), as amended in 1977 and 1990. The six criteria pollutants for which NAAQS have been established are carbon monoxide (CO), ozone (O_3), particulate matter equal to or smaller than 10 microns (PM_{10}) or 2.5 microns ($PM_{2.5}$) in diameter, sulfur dioxide (SO_2), nitrogen dioxide (NO_2), and lead (Pb). In addition to these criteria pollutants, the California Clean Air Act (CCAA) of 1988 established California Ambient Air Quality Standards (CAAQS) for visibility reducing particles, sulfates, hydrogen sulfide, and vinyl chloride. **Table 1** shows the current Bay Area attainment status for the state and federal ambient air quality standards.

Table 1. San Francisco Bay Area Attainment Status of the State and Federal Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards		National Standards	
		Concentration	Attainment Status	Concentration	Attainment Status
Ozone	8 Hour	0.070 ppm (137µg/m^3)	N[9]	0.070 ppm Primary same as secondary	N[4]
	1 Hour	0.09 ppm (180 µg/m^3)	N		See Note #5
Carbon Monoxide	8 Hour	9.0 ppm (10 mg/m^3)	A	9 ppm (10 mg/m^3)	A[6]
	1 Hour	20 ppm (23 mg/m^3)	A	35 ppm (40 mg/m^3)	A
Nitrogen Dioxide	1 Hour	0.18 ppm (339 µg/m^3)	A	0.100 ppm See Note #11	See Footnote #11

	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	–	0.053 ppm (100 µg/m^3)	A
Sulfur Dioxide See Note #12	24 Hour	0.04 ppm (105 µg/m^3)	A	0.14 ppm (365 µg/m^3)	See Footnote #12
	1 Hour	0.25 ppm (655 µg/m^3)	A	0.075 ppm (196 µg/m^3)	See Footnote #12
	Annual Arithmetic Mean	–	–	0.030 ppm (80 µg/m^3)	See Footnote #12
Particulate Matter (PM10)	Annual Arithmetic Mean	20 µg/m^3	N[7]	–	–
	24 Hour	50 µg/m^3	N	150 µg/m^3	U
Particulate Matter - Fine (PM2.5)	Annual Arithmetic Mean	12 µg/m^3	N[7]	12 µg/m^3 See Note #15	U/A
	24 Hour	–	–	35 µg/m^3 See Note #10	N
Sulfates	24 Hour	25 µg/m^3	A	–	–
Lead See Note #13	30-day Average	1.5 µg/m^3	–	-	A
	Calendar Quarter	–	–	1.5 µg/m^3	A
	Rolling 3 Month Average[14]	–	–	0.15 µg/m^3	See Note #14
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3	U	–	–
Vinyl Chloride (chloroethene)	24 Hour	0.010 ppm (26 µg/m^3	No information available	–	–
Visibility Reducing particles	8 Hour (10:00 to 18:00 PST)	See Note #8	U	–	–
A=Attainment N=Nonattainment U=Unclassified					
mg/m^3=milligrams per cubic meter		ppm=parts per million		µg/m^3=micrograms per cubic meter	

Source: (Bay Area Air Quality Management District, 2017a)

Notes:

1. California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, suspended particulate matter - PM10, and visibility reducing particles are values that are not to be exceeded. The standards for sulfates, Lake Tahoe carbon monoxide, lead, hydrogen sulfide, and vinyl chloride are not to be equaled or exceeded. If the standard is for a 1-hour, 8-hour or 24-hour average (i.e., all standards except for lead and the PM10 annual standard), then some measurements may be excluded. In particular, measurements are excluded that ARB determines would occur less than once per year on the average. The Lake Tahoe CO standard is 6.0 ppm, a level one-half the national standard and two-thirds the state standard.
2. National standards shown are the "primary standards" designed to protect public health. National standards other than for ozone, particulates and those based on annual averages are not to be exceeded more than once a year. The 1-hour ozone standard is attained if, during the most recent three-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one. The 8-hour ozone standard is attained when the 3-year average of the 4th highest daily

concentrations is 0.070 ppm (70 ppb) or less. The 24-hour PM10 standard is attained when the 3-year average of the 99th percentile of monitored concentrations is less than 150 µg/m3. The 24-hour PM2.5 standard is attained when the 3-year average of 98th percentiles is less than 35 µg/m3.

Except for the national particulate standards, annual standards are met if the annual average falls below the standard at every site. The national annual particulate standard for PM10 is met if the 3-year average falls below the standard at every site. The annual PM2.5 standard is met if the 3-year average of annual averages spatially averaged across officially designed clusters of sites falls below the standard.

3. National air quality standards are set by US EPA at levels determined to be protective of public health with an adequate margin of safety.
4. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm. An area will meet the standard if the fourth-highest maximum daily 8-hour ozone concentration per year, averaged over three years, is equal to or less than 0.070 ppm. EPA will make recommendations on attainment designations by October 1, 2016, and issue final designations October 1, 2017. Nonattainment areas will have until 2020 to late 2037 to meet the health standard, with attainment dates varying based on the ozone level in the area.
5. The national 1-hour ozone standard was revoked by U.S. EPA on June 15, 2005.
6. In April 1998, the Bay Area was redesignated to attainment for the national 8-hour carbon monoxide standard.
7. In June 2002, CARB established new annual standards for PM2.5 and PM10.
8. Statewide VRP Standard (except Lake Tahoe Air Basin): Particles in sufficient amount to produce an extinction coefficient of 0.23 per kilometer when the relative humidity is less than 70 percent. This standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.
9. The 8-hour CA ozone standard was approved by the Air Resources Board (ARB) on April 28, 2005, and became effective on May 17, 2006.
10. On January 9, 2013, EPA issued a final rule to determine that the Bay Area attains the 24-hour PM2.5 national standard. This EPA rule suspends key SIP requirements as long as monitoring data continues to show that the Bay Area attains the standard. Despite this EPA action, the Bay Area will continue to be designated as “non-attainment” for the national 24-hour PM2.5 standard until such time as the Air District submits a “redesignation request” and a “maintenance plan” to EPA, and EPA approves the proposed redesignation.
11. To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100 ppm (effective January 22, 2010). The US EPA expects to make a designation for the Bay Area by the end of 2017.
12. On June 2, 2010, the U.S. EPA established a new 1-hour SO2 standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. The existing 0.030 ppm annual and 0.14 ppm 24-hour SO2 NAAQS however must continue to be used until one year following U.S. EPA initial designations of the new 1-hour SO2 NAAQS. EPA expects to make designation for the Bay Area by the end of 2017.
13. ARB has identified lead and vinyl chloride as toxic air contaminants with no threshold level of exposure below which there are no adverse health effects determined.
14. National lead standard, rolling 3-month average: final rule signed October 15, 2008. Final designations effective December 31, 2011.
15. In December 2012, EPA strengthened the annual $PM_{2.5}$ NAAQS from 15.0 to 12.0 micrograms per cubic meter (µg/m3). In December 2014, EPA issued final area designations for the 2012 primary annual PM 2.5 NAAQS. Areas designated “unclassifiable/attainment” must continue to take steps to prevent their air quality from deteriorating to unhealthy levels. The effective date of this standard is April 15, 2015.

State Regulations

California Clean Air Act

The California Air Resources Board (CARB) administers air quality policy in California. The CAAQS were established in 1969 pursuant to the Mulford-Carrell Act. These standards are generally more stringent and apply to more pollutants than the NAAQS (i.e., visibility reducing particulates, hydrogen sulfide, and sulfates).

The FCAA requires the U.S. Environmental Protection Agency (EPA) to establish NAAQS for criteria pollutants, which are O_3, PM_{10}, $PM_{2.5}$, CO, NO_2, SO_2, and Pb. Under the CCAA, the CARB requires that each local air district prepare and maintain an Air Quality Management Plan (AQMP) to achieve compliance with CAAQS. These standards are generally more stringent and apply to more pollutants than the NAAQS. The CCAA requires that each local air district prepare and maintain an AQMP to achieve compliance with CAAQS.

These AQMPs also serve as the basis for preparation of the State Implementation Plan (SIP) for the State of California. CARB also administers the state's mobile source emissions control program and oversees air quality programs established by state statute, such as Assembly Bill (AB) 2588, the Air Toxics "Hot Spots" Information and Assessment Act of 1987. **Table 1** above shows the current San Francisco Bay Area attainment status for the state and federal ambient air quality standards.

In 1959 California enacted legislation requiring the state Department of Public Health to establish air quality standards and necessary controls for motor vehicle emissions. The CARB was created by the legislature in 1967, and the CAAQS set by the Department of Public Health were subsequently adopted by the CARB in 1969. The CAAQS predate the NAAQS set by U.S. EPA. California law continues to mandate CAAQS, which are often more stringent than national standards (California Air Resources Board, 2017a).

California State Implementation Plan

The 1990 amendments to the FCAA set new deadlines for attainment based on the severity of the pollution problem and launched a comprehensive planning process for attaining the NAAQS. The promulgation of the national 8-hour O_3 standard and $PM_{2.5}$ standards in 1997 resulted in additional statewide air quality planning efforts. In response to new federal regulations, SIPs also began to address ways to improve visibility in national parks and wilderness areas. SIPs are not single documents, but rather a compilation of new and previously submitted plans, programs, district rules, state regulations and federal controls. Many of California's SIPs rely on the same core set of control strategies, including emission standards for cars and heavy trucks, fuel regulations, and limits on emissions from consumer products. State law makes CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB then forwards SIP revisions to the U.S. EPA for approval and publication in the Federal Register. The Code of Federal Regulations (CFR) Title 40, Chapter I, Part 52, Subpart F, Section 52.220 lists all of the items which are included in the California SIP.

Local Regulations

Bay Area Clean Air Plan

The Bay Area Air Quality Management District (BAAQMD) adopted the Bay Area Clean Air Plan (2017 Clean Air Plan, Spare the Air, Cool the Climate [2017 Plan]) in 2017 to provide a plan to improve Bay Area air quality and meet public health goals. The 2017 Plan serves to update the former Bay Area ozone plan, the 2010 Clean Air Plan. The 2017 Plan focuses on two interrelated goals: protecting public health and protecting the climate. The 2017 Plan goals are consistent with the state adopted GHG reduction targets.

Groundwork for long-term GHG reduction efforts for the Bay Area was incorporated into the 2017 Plan; reduction targets set in the 2017 Plan aim to reduce GHG emissions 40 percent below 1990 levels by 2030, and 80% below 1990 levels by 2050 (Bay Area Air Quality Managment District, Final 2017 Clean Air Plan, 2017b). The Health & Safety Code requires that ozone plans propose a control strategy to reduce emissions of ozone precursors – reactive organic gases (ROG) and nitrogen oxides (NO_X) – and reduce transport of ozone and its precursors to neighboring air basins. In addition, the plan reinforces the BAAQMD's efforts in reducing emissions of fine particulate matter and toxic air contaminants. More specifically, the control strategy described in the 2017 Plan is designed to reduce emissions of the air pollutants that pose the greatest health risk to Bay Area residents.

The Bay Area is in nonattainment with NAAQS for Ozone (8 hour) and Particulate Matter - Fine ($PM_{2.5}$) (24 hour). In addition the Bay area is in nonattainment with CAAQS for Ozone (1 hour and 8 hour), Particulate Matter (PM_{10}) (Annual Arithmetic Mean and 24 hour), and Particulate Matter ($PM_{2.5}$) (Annual Arithmetic Mean) (see **Table 1**). Because the Bay Area currently exceeds these state and federal ambient air quality standards, the BAAQMD is required to develop and implement a strategy to reduce pollutant levels below applicable thresholds.

The BAAQMD has established thresholds of significance to assist in determining if projects would cause or contribute to violations of an air quality standard, expose sensitive individuals and receptors to substantial pollutant concentrations, and create objectionable odors. Sensitive individuals are segments of the population that are the most susceptible to poor air quality. Sensitive individuals are children, the elderly, and those with serious pre-existing health conditions affected by air quality. Examples of sensitive receptors include residences, schools and school yards, parks and playgrounds, daycare centers, nursing homes, and medical facilities. Residences can include houses, apartments, and senior living complexes. Medical facilities can include hospitals, convalescent homes, and health clinics. Playgrounds can include play areas associated with parks or community centers (Bay Area Air Quality Managment District, California Environmental Quality Act Air Quality Guidelines, 2017). The thresholds were originally published in 1999. In 2010, BAAQMD adopted updated thresholds in particular for lowered O_3 precursors (NOx and ROG) and $PM_{2.5}$ specifically for construction and operation projects as well as thresholds for risk and hazards to sensitive receptors. The CEQA thresholds and guidelines were updated in May 2017 to include substantive changes to assumptions underlying data and analytical methodologies and mitigation approaches, as well as court decisions related to CEQA litigation. (Bay Area Air Quality Managment District, 2017). **Table 2** presents the thresholds of significance for construction and operational emissions of criteria pollutants.

Table 2. BAAQMD CEQA Thresholds of Significance for Criteria Air Pollutants

Pollutant	**Construction-Related**	**Operational-Related**	
	Average Daily Emissions (lb./day)	Average Daily Emissions (lb./day)	Maximum Annual Emissions (tpy.)
Reactive Organic Gases (ROG)	54	54	10
Nitrogen oxides (NOx)	54	54	10
Particulate Matter (PM10)	82 (exhaust)	82	15
Particulate Matter (PM2.5)	54 (exhaust)	54	10

PM10/PM2.5 (fugitive dust)	Best Management Practices	None
Local Carbon Monoxide	None	9.0 ppm (8-hour average), 20.0 ppm (1-hour average)
GHGs – Projects other than Stationary Sources	None	Compliance with Qualified GHG Reduction Strategy OR 1,100 MT of CO2e/yr OR 4.6 MT CO2e/SP/yr (residents+employees)
GHGs –Stationary Sources	None	10,000 MT/yr
Risk and Hazards for new sources and receptors (Individual Project)	Same as Operational Thresholds	Compliance with Qualified Community Risk Reduction Plan OR Increased cancer risk of >10.0 in a million Increased non-cancer risk of > 1.0 Hazard Index (Chronic or Acute) Ambient PM2.5 increase: > 0.3 µg/m3 annual average Zone of Influence: 1,000-foot radius from property line of source or receptor
Risk and Hazards for new sources and receptors (Cumulative Threshold).	Same as Operational Thresholds	Compliance with Qualified Community Risk Reduction Plan OR Cancer risk: >100 million (from all local sources) Non-cancer risk: > 10.0 Hazard Index (from all local sources, Chronic) Ambient PM2.5: > 0.8 µg/m3 annual average (from all local sources) Zone of Influence: 1,000-foot radius from property line of source or receptor
Accidental Release of Acutely Hazardous Air Pollutants	None	Storage or use of acutely hazardous materials located near receptors or new receptors located near stored or used acutely hazardous materials considered significant
Odors	None	5 confirmed complaints per year averaged over three year
tpy – tons per year; lb./day – pounds per day; ppm – parts per million Source: (Bay Area Air Quality Managment District, 2017)		

Napa County General Plan

The General Plan includes policies to reduce air pollution by achieving and maintaining air quality in Napa County that meets or exceeds state and federal standards.

- **Goal CON-17:** Reduce air pollution and reduce local contributions to regional air quality problems, achieving and maintaining air quality in Napa County which meets or exceeds state and federal standards.
    - **Policy CON-75**: The County shall work to implement all applicable local, state, and federal air pollution standards, including those related to reductions in GHG emissions. [Implemented by Action Item CON CPSP-6]
    - **Policy CC-54**: The County shall either require that adequate buffers be maintained between air pollution or odor sources and sensitive receptors such as residences, or that filters, or other mitigation be provided to reduce potential exposures to acceptable levels consistent with regulatory requirements.
        - New sources of toxic air contaminants (TAC) or odors proposed near residences or sensitive receptors within screening distances recommended by the CARB or BAAQMD

shall be evaluated and adequate buffers or filters or other equipment shall be provided.

Environmental Setting

Napa Valley is situated between the Mayacamas Mountains to the west and the Vaca Mountains to the east. Napa Valley is widest at its southern end and narrows to the north, and the mountains surrounding the valley serve as effective barriers to the prevailing northwesterly winds, so pollutants entering the valley can become trapped without pathways to disperse. During the summer and fall, prevailing winds can transport non-local air pollution from the San Pablo Bay and locally generated O_3 precursors northward where the valley narrows, effectively trapping and concentrating the pollutants under stable conditions. The local upslope and downslope flows set up by the surrounding mountains may also recirculate pollutants, adding to the total burden. The high frequency of light winds and associated stable conditions during the fall and winter contributes to the buildup of particulates and CO from automobiles, agricultural burning and fireplace burning.

The BAAQMD generally defines a sensitive receptor as a facility or land use that houses or attracts members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of sensitive receptors include schools, hospitals, convalescent facilities, and residential areas. The County defines sensitive receptors/land uses as locations where people reside or where members of the population are located who are particularly sensitive to the effects of air pollutants (e.g., children, the elderly and people with illnesses). Specific areas considered as sensitive receptors include residences, hospitals or healthcare facilities, parks and wildlife areas, and schools.

The closest school is St. Helena High School, located approximately 10 miles from the project construction site. A day care facility, Wine Country Day Preschool, is located approximately six miles east from the project area. There are no parks, hospitals, healthcare facilities, elder care homes, or wildlife areas within one mile of the project area. The remaining sensitive receptors in the project vicinity are limited to single-family residences located at various distances away along the Napa River with the closest house located between approximately 250 and 600 feet away.

Discussion of Checklist Responses

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

No Impact. During project construction, continuous access through the project area would be maintained. Therefore, the project would not increase traffic through the project area during construction. During operation of the project, traffic conditions would be similar to existing traffic conditions and would not increase the number of vehicles traveling through the area. The existing roadway has two lanes on either side of the bridge as it approaches a single lane bridge. Although the new bridge would be a two-lane bridge, the project would not increase traffic through the project area, and traffic conditions during operation would be remain similar to existing conditions. In addition, the new bridge would have a new alignment that would likely reduce braking through that area. Construction and operation of the project would comply with all applicable state, federal, and/or local rules and regulations; therefore, the project would not impact any applicable air quality plans. Therefore, the project would not impact any applicable air quality plans.

b. Would the project 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?

Less than Significant Impact. A criteria air pollutant is any air pollutant for which ambient air quality standards have been set by the US EPA or the CARB. Criteria pollutants include O_3, $PM_{2.5}$, PM_{10}, CO, NO_2,

lead (Pb), SO_2, visibility-reducing particles, sulfates, and hydrogen sulfide.

The nearest sensitive receptors have been identified as residential structures located approximately 250 feet and 600 feet from the existing bridge. No residences are visible from the existing bridge. Construction activities would include grading, demolition of the existing roadway, vegetation removal, and paving, which could result in increased air quality emissions. Construction is anticipated to last approximately 18 months, which includes 13 months of actual work and five months of downtime between the two construction seasons.

Napa County is in attainment for all criteria pollutants. Project construction would result in temporary emissions of CO, NO_X, ROGs, $PM_{2.5}$, and $PM_{10.}$ Stationary or mobile powered on-site construction equipment typically include trucks, excavators, backhoes, crushing and/or processing equipment, graders, scrapers, pavers, and other paving equipment. However, emissions from construction vehicles and equipment for the project would be temporary in nature and would cease upon completion of the project. Operation of the project would not result in a net increase of any criteria pollutants in or near the project area. Therefore, impacts would be less than significant.

c. Would the project expose sensitive receptors to substantial pollutant concentrations?

No Impact. The CEQA and Federal Conformity Guidelines establish a significance threshold for projects. Any project would be significant if it triggers or exceeds the most appropriate evaluation criteria. The evaluation criteria includes: (1) Generates total emissions (direct and indirect) in excess of the thresholds; (2) Generates a violation of any ambient air quality standard when added to the local background; (3) Does not conform with the applicable attainment or maintenance plans; and (4) Exposes sensitive receptors to substantial pollutant concentrations, including those resulting in a cancer risk greater than or equal to 10 in a million and/or a HI (non-cancerous greater than or equal to 1). Sensitive populations (sensitive receptors) are more susceptible to the effects of air pollution than the general population.

As stated above in the environmental setting, the BAAQMD generally defines a sensitive receptor as a facility or land use that houses or attracts members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. St. Helena High School and Wine Country Day Preschool are located approximately 10 miles north and six miles east, respectively, from the project area. Additionally, there are no parks, hospitals, healthcare facilities, elder care homes, or wildlife areas within one mile of the project area. The nearest sensitive receptors, single family residences, are located at various distances along the Napa River with the closest being between approximately 250 feet and 600 feet from the existing bridge. However, emissions would be temporary during the construction period and not exceed thresholds or violate ambient air quality standards. In addition, the project would comply with BAAQMD's Regulation 6 rules that establishes limits and requirements to reduce particulate matter (Bay Area Air Quality Management District, 2018). Therefore, there would be no impact.

d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less than Significant Impact. Irritating odors are often associated with particulates. The predominant source of power for construction equipment is diesel engines. Exhaust odors from diesel engines, as well as emissions associated with asphalt paving, may be considered offensive to some individuals. During construction, the project could result in potential odors from construction equipment exhaust emissions. These exhaust emissions include Volatile Organic Compounds (VOC), CO, O_3, NO_2, and Oxides of Sulfur (SO_x). However, the odors would be temporary during the construction period. Following construction, odors would not be greater than the existing odors emitted prior to project construction. Therefore,

impacts would be less than significant.

Avoidance, Minimization, and/or Mitigation Measures

None. The project would not require Avoidance, Minimization, and/or Mitigation Measures for Air Quality.

4. Biological Resources

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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 CDFW or USFWS?	☐	☒	☐	☐
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 CDFW or USFWS?	☐	☒	☐	☐
c.	Have a substantial adverse effect on state or federally protected (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 (HCP); Natural Community Conservation Plan; or other approved local, regional, or state HCP?	☐	☐	☐	☒

The following discussion incorporates the results of the Natural Environment Study (NES) (February 2019) and Biological Assessment (BA) (April 2021) that were prepared for this project (GPA Consulting, 2019) (GPA Consulting, 2021c).

Regulatory Setting

Clean Water Act

The USACE regulates the placement of dredged and fill material into waters of the United States (U.S.), including wetlands, under Section 404 of the CWA. No discharge of dredged or fill material into jurisdictional features is permitted unless authorized under an USACE Nationwide Permit or Individual Permit. For all work subject to an USACE Section 404 permit, project proponents must obtain a Water Quality Certification from the applicable RWQCB under CWA Section 401 stating that the project would comply with applicable water quality regulations.

Waters of the United States

The USACE Regulatory Program regulates activities within federal wetlands and waters of the U.S. pursuant to Section 404 of the CWA. Waters of the U.S. are divided into several categories as defined by the CFR. Under the CFR (CFR 33 Section 328.3), waters of the U.S. include, but are not limited to:

- All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce (including sightseeing or hunting), including all waters subject to the ebb and flow of the tide;
- All interstate waters including interstate wetlands; and

- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats; sand flats; wetlands; sloughs; prairie potholes; wet meadows; playa lakes; or natural ponds where the use, degradation, or destruction of which could affect interstate or foreign commerce. This includes any such waters which are or could be used by interstate or foreign travelers for recreational or other purposes, and from which fish or shellfish could be taken and sold in interstate or foreign commerce, or which are used or could be used for industrial purposes in interstate commerce.

In streams and rivers where adjacent wetlands are absent, the USACE jurisdiction extends to the ordinary high-water mark (OHWM). The OHWM is defined as "the line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" (33 CFR Section 328.3[e]). If the OHWM is not readily distinguishable, the USACE jurisdiction within streams extends to the "bankfull discharge" elevation, which is the level at which water begins to leave the channel and move into the floodplain (Rosgen, 1996). This level is reached at a discharge which generally has a recurrence interval of approximately 1.5 to two years on the annual flood series (Leopold, 1994).

The USACE Regulatory Program regulates activities within waters of the U.S. which include those tidal and non-tidal waters listed in 33 Code of Federal Regulations (CFR) 328.3. No discharge of dredged or fill material into jurisdictional features is permitted unless authorized under an USACE Nationwide permit or Individual Permit. Federal wetlands are transitional areas between well-drained upland habitats and permanently flooded (deepwater) aquatic habitats, which are defined differently by the resource agencies. The USACE and the U.S. EPA define wetlands as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances, do support a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR Section 328.3[b]).

Waters of the State

The term "waters of the state," under jurisdiction of the RWQCB, is defined by California Water Code as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code Section 13050(e)).

The State Water Resources Control Board (SWRCB) redefined wetlands as part of their proposed Procedures for Discharges of Dredged or Fill Material to Waters of the State (SWRCB, 2019). The new definition, which, is "an area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation." This report uses the current definition of wetlands.

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) was established in 1973 to provide a framework to conserve and protect endangered and threatened species and their habitat. Section 7 of the FESA requires federal agencies to ensure that actions they engage in, permit, or fund do not jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of designated critical habitat for these species. Section 7 consultation provides for the "incidental take" of endangered and threatened wildlife species by federal entities if adverse effects to species cannot be avoided. Incidental take is defined by the FESA as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. The term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (50 CFR Part 10 and Part 21) protects migratory birds, their occupied nests, and their eggs from disturbance and/or destruction. "Migratory birds" under the MBTA include all bird species listed in 50 CFR Part 10.13, as updated in April 2020. (United States Fish and Wildlife Service, 2020). In accordance with the Migratory Bird Treaty Reform Act of 2004 the USFWS included all species native to the U.S. (or U.S. territories) that are known to be present as a result of natural biological or ecological processes. In addition, the USFWS provided clarification that the MBTA does not apply to any nonnative species whose presence in the U.S. are solely the result of intentional or unintentional human-assisted introduction (United States Fish and Wildlife Service, 2017). Nonnative bird species not protected by the MBTA include, but are not limited to, the house sparrow (*Passer domesticus*), European starling (*Sturnus vulgaris*), and rock pigeon (*Columba livia*).

Executive Order 13112

Executive Order (EO) 13112 directs all federal agencies to refrain from authorizing, funding, or carrying out actions or projects that may spread invasive species. This order further directs federal agencies to prevent the introduction of invasive species, control and monitor existing invasive species populations, restore native species to invaded ecosystems, research and develop prevention and control methods for invasive species, and promote public education on invasive species.

Porter Cologne Act

The RWQCB also asserts authority over waters of the state under the Porter-Cologne Act, which establishes a regulatory program to protect water quality and to protect beneficial uses of state waters. The Porter-Cologne Act empowers the RWQCB to formulate and adopt a Water Quality Control Plan that designates beneficial uses and establishes such water quality objectives that in its judgment will ensure reasonable protection of beneficial uses. Each RWQCB establishes water quality objectives that will ensure the reasonable protection of beneficial uses and the prevention of water quality degradation. Dredge or fill activities with the potential to affect water quality in these waters must comply with Waste Discharge Requirements (WDR) issued by the RWQCB. Waters of the state are defined by the Porter-Cologne Act as any surface or subsurface water or groundwater, including saline waters, within the boundaries of the state.

California Fish and Game Code

Section 1602 of the California Fish and Game Code governs construction activities that substantially divert or obstruct natural stream flow or substantially change the bed, channel, or bank of any river, stream, or lake under the jurisdiction of CDFW. Under the California Fish and Game Code, the limits of CDFW's jurisdiction within streams and other drainages extends from the top of the stream bank to the top of the opposite bank, to the outer drip line in areas containing riparian vegetation, and/or within the 100-year floodplain of a stream or river system containing fish or wildlife resources. Streams are defined in the CCR (14 CCR Section 1.72) as "a body of water that follows at least periodically or intermittently through a bed or channel having banks and that support fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." Under Section 1602, a Streambed Alteration Agreement must be issued by the CDFW prior to the initiation of construction activities that may substantially divert or obstruct the natural flow of any river, stream, or lake; substantially change or use any material from the bed, channel, or bank, of any river, stream, or lake; or deposit debris, waste, or other materials that could pass into any river, stream, or lake under CDFW's jurisdiction.

The CDFW has jurisdictional authority over waters of the state, including wetlands. In practice, CDFW

follows the USFWS definition of wetlands in Cowardin's Classification of Wetlands and Deepwater Habitats of the United States: "Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this classification, wetlands must have one or more of the following three attributes: 1) at least periodically, the land supports hydrophytes; 2) the substrate is predominantly undrained hydric soil; and 3) the substrate is non-soil and is saturated with water or covered by shallow water at some time during the growing season of each year" (Cowardian, 1979).

Section 2126 of the California Fish and Game Code states that it is unlawful for any person to take any mammals that are identified within Section 2118, including all species of bats.

Sections 3503, 3513, and 3800 of the California Fish and Game Code prohibit the take of birds protected under the MBTA and protects their occupied nests. In addition, Section 3503.5 of the California Fish and Game Code prohibits the take of any birds in the order Falconiformes or Strigiformes (birds-of-prey) and protects their occupied nests. Pursuant to Section 3801 and 3800, the only species authorized for take without prior authorization from CDFW is the house sparrow (*Passer domesticus*), European starling (*Sturnus vulgaris*), and rock pigeon (*Columba livia*).

State-listed species and those petitioned for listing by the CDFW are fully protected under the California Endangered Species Act (CESA). Under Section 2080.1 of the California Fish and Game Code, if a project would result in take of a species that is both federally and state listed, a consistency determination may be completed in lieu of undergoing separate CESA consultation. Under Section 2081, if a project would result in take of a species that is state-only listed as threatened or endangered, then an incidental take permit from the CDFW is required.

Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code prohibit the take or possession of 37 fully protected bird, mammal, reptile, amphibian, and fish species. Each of the statutes states that no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to "take" the species, and states that no previously issued permit or licenses for take of the species "shall have any force or effect" for authorizing take or possession. The CDFW will not authorize incidental take of fully protected species when activities are proposed in areas inhabited by those species.

Napa County

Napa County General Plan

Conservation (CON) Sections

- **Policy CON-13** requires projects (including residential, commercial, and industrial) address impacts on wildlife habitat and avoid impacts on fisheries and habitat supporting special-status species, to the extent feasible. Where impacts on wildlife and special-status species cannot be avoided, projects must include effective mitigation and management plans (Napa County, 2008).
- **Policy CON-14** requires developers to mitigate for loss of fishery and riparian habitat when avoidance of impacts is determined to not be feasible. Mitigation measures may include replacement habitat either on-site or at an approved off-site location (preference is given to on-site) or paying in-kind funds to an approved fishery and riparian habitat improvement and acquisition fund (Napa County, 2008).
- **Policy CON-24** requires that the County:
    - Maintain and improve oak woodland habitat through appropriate measures including, but not limited to the following: preserve to the extent feasible, oak trees near the heads of drainages or depressions for agricultural projects;

- Comply with the Oak Woodlands Preservation Act (California Code, PRC 21083.4) for oak woodland preservation and retention, to the extent feasible, as part of residential, commercial, and industrial approvals;
- Provide replacement of lost oak woodlands or preservation of like habitat at a 2:1 ratio when retention of existing vegetation is found to be infeasible;
- Minimize the removal of oak species limited in distribution to the maximum extent feasible;
- Support hardwood cutting criteria that requires retention of adequate stands of oak trees;
- Maintain, to the extent feasible, a mixture of oak species for acorn production; and,
- Support the County Agricultural Commission's enforcement of state and federal regulations for sudden oak death and similar future threats.

When the County determines that removal of native oak woodlands is significant, they require replacement or preservation of lost oak woodland habitat would be provided pursuant to General Plan Action Item CON NR-7 (Voluntary Oak Woodlands Management Plan), which implements Policy CON-24 (Napa County, 2008).

Oak Woodlands Preservation Act

The Oak Woodlands Preservation Act (California Code, PRC 21083.4) requires that a lead agency evaluate potential impacts on native oak woodlands and must determine if a project would result in a significant impact on oak woodlands. If it is determined that a project may result in a significant impact on oak woodlands, then the lead agency must complete one or more of the following: conserve oak woodlands through the use of conservation easements; plant an appropriate number of trees, including maintenance of plantings and replacement of failed plantings; contribute funds to the Oak Woodlands Conservation Fund for the purpose of purchasing oak woodlands conservation easements; and/or other mitigation measures.

Environmental Setting

Biological Study Area

The Biological Study Area (BSA) is approximately 5.14 acres. The BSA was defined as the area that could be temporarily or permanently impacted by the project and includes the area outside of the project area that may be indirectly affected to the extent of any potential physical, chemical, or biotic effects. Land in the biological study area (BSA) consists of rural-residential properties, Dry Creek Road, Dry Creek Bridge, Dry Creek, and three vegetative communities. The BSA is surrounded by rural residential properties, including residential structures such as houses and storage sheds. Vegetative communities classified within the BSA include *Quercus* Forest Alliance (Mixed Oak Forest), *Umbelluaria Californica* Forest Alliance (California Bay Forest), and *Bromus* Semi-Natural Herbaceous Stands (Annual Brome Grassland).

Special-Status Species

Plants

According to the California Natural Diversity Database (CNDDB) and USFWS search, 93 special-status plant species have the potential to be in the BSA based on recorded geographical distribution. Based on research regarding habitat requirements, the following 19 of the special-status plant species have potential to be in the BSA: Napa false indigo (*Amorpha californica* var. *napensis*), bent-flowered fiddleneck *(Amsinckia lunaris*), slender silver moss (*Anomobryum julaceum*), big-scale balsamroot (*Balsamorhiza macrolepis*), streamside daisy (*Erigeron biolettii*), congested-headed hayfield tarplant (*Hemizonia*

congesta ssp. *congesta*), harlequin lotus (*Hosackia gracilis*), northern California black walnut (*Juglans hindsii*), bristly leptosiphon (*Leptosiphon acicularis*), broad-lobed leptosiphon (*Leptosiphon latisectus*), redwood lily (*Lilium rubescens*), Cobb Mountain lupine (*Lupinus sericatus*), Mt. Diablo cottonweed (*Micropus amphibolus*), marsh microseris (*Microseris paludosa*), Victor's gooseberry (*Ribes victoris*), marsh checkerbloom (*Sidalcea oregana* spp. *hydrophila*), Napa bluecurls (*Trichostema ruygtii*), dark-mouthed tritelelia (*Triteleia lugens*), and oval-leaved viburnum (*Viburnum ellipticum*). None of these species are listed as federally threatened or endangered under the FESA, or state threatened or endangered under the CESA. No additional special-status plant species are expected to be within the BSA.

Wildlife

According to the CNDDB, NMFS, and USFWS searches, 73 special-status animal species have the potential to be in the BSA based on recorded geographical distribution. Based on habitat requirements and survey results, the following 27 special-status wildlife species have potential to be in the BSA: western bumble bee (*Bombus occidentalis*), steelhead - central California coast DPS (steelhead) (*Oncorhynchus mykiss irideus*), California giant salamander (*Dicamptodon ensatus*), foothill yellow-legged frog (*Rana boylii*), California red-legged frog (*Rana draytonii*), Coast Range newt (*Taricha torosa*), Cooper's hawk (*Accipiter cooperii*), sharp-shinned hawk (*Accipiter striatus*), great egret (*Ardea alba*), great blue heron (*Ardea herodias*), oak titmouse (*Baeolophus inornatus*), snowy egret (*Egretta thula*), yellow-breasted chat (*Icteria virens*), black-crowned night heron (*Nycticorax nycticorax*), purple martin (*Progne subis*), yellow warbler (*Setophaga petechia*), Lawrence's goldfinch (*Spinus lawrencei*), pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), North American porcupine (*Erethizon dorsatum*), silver-haired bat (*Lasionycteris noctivagans*), western red bat (*Lasiurus blossevillii*), western small-footed myotis (*Myotis ciliolabrum*), long- eared myotis (*Myotis evotis*), fringed myotis (*Myotis thysanodes*), long-legged myotis (*Myotis volans*), and Yuma myotis (*Myotis yumanensis*). The California red-legged frog and steelhead are listed as federally threatened under the FESA. No additional special-status wildlife species are expected to be within the BSA.

Natural Communities

According to the CNDDB search, a total of five special-status natural communities have potential to be in the BSA based on geographical location, including Coastal and Valley Freshwater Marsh, Northern Vernal Pool, Serpentine Bunchgrass, Valley Needlegrass Grassland, and Wildflower Field communities. Based on field surveys, there are no special-status natural communities identified by CNDDB within the BSA. However, the BSA has jurisdictional features (wetlands, riverine and riparian) that are considered special-status natural communities regulated by the CDFW, USACE, and/or RWQCB. In addition, the General Plan has policies directing project proponents to evaluate impacts on native oak woodlands; therefore, the Mixed Oak Forest in the BSA is considered a special-status natural community.

The BSA was evaluated for waters under jurisdiction of the USACE by delineating the OHWM of existing waterways and determining connectivity of waterways within the BSA to navigable waters. The BSA was also evaluated for jurisdictional wetlands, which are identified by determining the presence of wetland vegetation, hydrology, and hydric soils. Dry Creek and its tributaries flow to the Napa River and are expected to fall under USACE jurisdiction. The USACE will have final authority and discretion as to whether this area meets the "significant nexus" criteria required to establish USACE jurisdiction over these waterways. Approximately 0.02 acre of wetlands and 0.10 acre of non-wetland waters under jurisdiction of the USACE was delineated within the BSA.

The BSA was evaluated for waters under jurisdiction of the RWQCB by delineating the OHWM of the existing waterways. There were surface waters in Dry Creek at the time of the surveys; therefore, it is expected to fall under RWQCB jurisdiction. Approximately 0.02 acre of wetlands and 0.10 acre of non-

wetland waters under the jurisdiction of the RWQCB was delineated in the BSA.

The BSA was evaluated for waters under jurisdiction of the CDFW by delineating areas from the top of bank to top of bank and associated riparian vegetation. There is California Bay Forest, considered a riparian community, on the banks adjacent to Dry Creek. Within the BSA, Dry Creek has a defined bed and bank and supports vegetation; therefore, Dry Creek and the adjacent riparian vegetation are expected to fall under CDFW jurisdiction. Approximately 0.80 acre under jurisdiction of the CDFW was delineated within the BSA which includes the bed, bank, channel of Dry Creek and California Bay Forest.

Habitat Connectivity

The General Plan designated the project area and the BSA as Agriculture, Watershed, and Open Space. According to the CDFW Biogeographic Information and Observation System (BIOS), there are no designated essential wildlife connectivity areas or natural landscape blocks in the BSA. However, Dry Creek is a known migratory corridor for steelhead. While the BSA is not a high priority migration or travel corridor for land animals, the areas within the BSA may be used for local foraging and movement of terrestrial wildlife species in the project vicinity.

Habitat in the area is minimally disturbed. Many of the animal species observed during surveys included those commonly found in woodland areas, such as the oak titmouse (*Baeolophus inornatus*), California scrub jay (*Aphelocoma californica*), black phoebe (*Sayornis nigricans*), and white-tailed deer (*Odocoileus virginianus*). Presumed black phoebe nests were observed on the existing bridge. In addition, a pair of acorn woodpeckers (*Melanerpes formicivorus*) was nesting in the BSA within a large tree on the northeast side of the bridge. The vegetation communities and creek provide suitable habitat to support nesting birds, roosting bats, foraging mammals, migrating fish, amphibians, reptiles, and invertebrates.

Discussion of Checklist Responses

a. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFW or USFWS?

Less Than Significant with Mitigation Incorporated. For the purposes of this assessment, special-status species are those that are listed as rare, species of concern, candidate, threatened or endangered by the USFWS, NMFS, and CDFW. Special-status plant and animal species with the potential to be found in the BSA were identified through a review of the following resources:

- CDFW BIOS (California Department of Fish and Wildlife, 2018);
- CDFW CNDDB Species List for Calistoga, Chiles Valley, Glen Ellen, Kenwood, Napa, Rutherford, Sonoma, St. Helena, and Yountville 7.5-minue series topographic quadrangles (California Department of Fish and Wildlife, 2018);
- NMFS Essential Fish Habitat (EFH) Mapper (National Marine Fisheries Service, 2018);
- NMFS West Coast Region California Species List (National Marine Fisheries Service, 2018); and
- USFWS Information for Planning and Consultation (IPaC) Database (USFWS, 2018).

Plants

Based on habitat requirements and survey results, the following 19 special-status plant species have potential to be in the BSA and could be impacted by the project. None of these species are listed as federally threatened or endangered under the FESA, or state threatened or endangered under the CESA.

Napa False Indigo

The Napa false indigo is considered a CDFW state rank S2 (imperiled- rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or California) and California Native Plant Society 1B.2 species (plant species that are rare, threatened, or endangered in California and elsewhere and moderately threatened in California). This species is a perennial deciduous shrub found in openings of broadleaved upland forest, chaparral, and cismontane woodland. This species is typically found at elevations between 98 to 2,411 feet above mean sea level (msl) and the typical blooming period is from April to July (California Native Plant Society, 2018) (Jepson Herbarium, 2018). There is suitable forest and woodland habitat in the BSA for the Napa false indigo. Although this species was not observed during the biological surveys, all areas within the BSA were not accessible; therefore, this species has potential to be in the BSA.

Bent Flowered Fiddleneck

The bent-flowered fiddleneck is considered a CDFW state rank S2S3 (imperiled-rarity due to very restricted range, very few populations [often 20 or fewer], steep declines, or other factors making it very vulnerable to extirpation from the nation or state/ vulnerable- restricted range, relatively few populations [often 80 or fewer], recent and widespread declines, or other factors making it vulnerable to extirpation) and CNPS 1B.2 species. This species is an annual herb found in cismontane woodland, valley and foothill grassland, and coastal bluff scrub. The bent-flowered fiddleneck is typically found at elevations between nine and 2,608 feet above msl and the typical blooming period is from March to June (California Native Plant Society, 2018) (Jepson Herbarium, 2018). There is suitable woodland and non-native annual grassland habitat in the BSA for the bent- flowered fiddleneck. Although this species was not observed during the biological surveys, all areas within the BSA were not accessible; therefore, this species has potential to be in the BSA.

Slender Silver Moss

The slender silver moss is considered a CDFW state rank S2 and CNPS 4.2 species (plants of limited distribution and moderately threatened in California). This species is a bryophyte found in broadleaved upland forest, lower montane coniferous forest, and north coast coniferous forest communities on damp rocks and soil, granitic crevices, cliff crevices, and is usually seen on road cuts. This species is typically found at elevations from 328 to 3,280 feet above msl (California Native Plant Society, 2018) (Harpel, 2010). There is suitable forest habitat in the BSA for the slender silver moss. Although this species was not observed during the biological surveys, all areas within the BSA were not accessible; therefore, this species has potential to be in the BSA.

Big-Scale Balsamroot

The big-scale balsamroot is considered a CDFW state rank S2 and CNPS 1B.2 species. This species is a perennial herb found in chaparral, cismontane woodland, and valley and foothill grassland. This species is sometimes found in serpentine soils. The big-scale balsamroot is typically found at elevations between 114 and 4,806 feet above msl and the typical blooming period is from March to June (California Native Plant Society, 2018) (Jepson Herbarium, 2018). There is suitable woodland and non-native annual grassland habitat in the BSA for big-scale balsamroot. Although this species was not observed during the biological surveys, all areas within the BSA were not accessible; therefore, this species has potential to be in the BSA.

Streamside Daisy

The streamside daisy is considered a CDFW state rank S3 and CNPS 3 species (plants about which we need more information). This species is a perennial herb found in broadleaved upland forest, north coast

coniferous forest, and cismontane woodland on dry slopes, rocks, and ledges along rivers. This species is typically found at elevations between 98 and 3,608 feet above msl and the typical blooming period is from June to October (California Native Plant Society, 2018) (Jepson Herbarium, 2018). There is suitable forest and woodland habitat in the BSA for the streamside daisy. Although this species was not observed during the biological surveys, all areas within the BSA were not accessible; therefore, this species has potential to be in the BSA.

Congested-Headed Hayfield Tarplant

The congested-headed hayfield tarplant is considered a CDFW S1S2 species (critically Imperiled - extreme rarity (often five or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from California/ imperiled- rarity due to very restricted range, very few populations [often 20 or fewer], steep declines, or other factors making it very vulnerable to extirpation from the nation or state) and CNPS 1B.2 species. This species is an annual herb found in valley and foothill grassland, often along roadsides, at elevations typically between 65 and 1,837 feet above msl. The congested-headed typically blooms from April to November (California Native Plant Society, 2018) (Jepson Herbarium, 2018). There is suitable grassland habitat in the BSA for the congested-headed hayfield tarplant. Although this species was not observed during the biological surveys, all areas within the BSA were not accessible; therefore, this species has potential to be in the BSA.

Harlequin Lotus

The harlequin lotus is considered a CDFW state rank S3 and CNPS 4.2 species. This species is a perennial rhizomatous herb found in broadleaved upland forest, closed-cone coniferous forest, north coast coniferous forest, wetlands, cismontane woodland, coastal scrub, coastal bluff scrub, coastal prairie, marshes, meadows, seeps, swamps, and valley and foothill grassland. This species is often found along roadsides typically at elevations between zero and 2,296 feet above msl. The harlequin lotus typically blooms from March to July (California Native Plant Society, 2018) (Jepson Herbarium, 2018). There is suitable forest, woodland, and annual grassland habitat in the BSA for the harlequin lotus. Although this species was not observed during the biological surveys, all areas within the BSA were not accessible; therefore, this species has potential to be in the BSA.

Northern California Black Walnut

The northern California black walnut is considered a CDFW state rank S1 and CNPS 1B.1 species. This species is a perennial deciduous tree found in riparian forest and woodland, often along streams at elevations typically between zero and 1,444 feet above msl. The northern California black walnut typically blooms from April to May (California Native Plant Society, 2018) (Jepson Herbarium, 2018). There is suitable woodland and forest habitat in the BSA for the northern California black walnut. In addition, this species was observed during the biological surveys within the BSA.

Bristly Leptosiphon

The bristly leptosiphon is considered a CDFW state rank S3 and CNPS 4.2 species. This species is an annual herb found in chaparral, cismontane woodland, coastal prairies, and valley and foothill grassland at elevations typically between 180 and 4,921 feet above msl. The bristly leptosiphon typically blooms from April to July (California Native Plant Society, 2018) (Jepson Herbarium, 2018). There is suitable woodland and annual grassland habitat in the BSA for the bristly leptosiphon. Although this species was not observed during the biological surveys, all areas within the BSA were not accessible; therefore, this species has potential to be in the BSA.

Redwood Lily

The redwood lily is considered a CDFW state rank S3 and CNPS 4.2 species. This species is a perennial bulbiferous herb found in broadleaved upland forest, lower and upper montane coniferous forest, north coast coniferous forest, and chaparral, and may be found on serpentine soils. The redwood lily is typically found at elevations between 98 and 6,266 feet above msl and typically blooms from April to August (California Native Plant Society, 2018) (Jepson Herbarium, 2018). There is suitable forest habitat in the BSA for the redwood lily. Although this species was not observed during the biological surveys, all areas within the BSA were not accessible; therefore, this species has potential to be in the BSA.

Cobb Mountain Lupine

The Cobb Mountain lupine is a CDFW state rank S2 and CNPS 1B.2 species. This species is a perennial herb found in broadleaved upland forest, lower montane coniferous forest, chaparral, and cismontane woodland. This species is often found in gravelly soils on open wooded slopes. The Cobb Mountain lupine may also be found on serpentine soils typically at elevations between 393 and 4,560 feet above msl. This species typically blooms from March to June (California Native Plant Society, 2018) (Jepson Herbarium, 2018). There is suitable woodland and forest habitat in the BSA for Cobb Mountain lupine. Although this species was not observed during the biological surveys, all areas within the BSA were not accessible; therefore, this species has potential to be in the BSA.

Marsh Microseris

The marsh microseris is a CDFW state rank S2 and CNPS 1B.2 species. This species is a perennial herb found in cismontane woodland, closed-cone coniferous forest, coastal scrub, and valley and foothill grassland. The marsh microseris is typically found at elevation between nine and 2,001 feet above msl and the typically blooms from April to June (California Native Plant Society, 2018) (Jepson Herbarium, 2018). There is suitable woodland and annual grassland habitat in the BSA for marsh microseris; therefore, although this species was not observed during the biological surveys, which were conducted during the typical blooming period for this species, all areas within the BSA were not accessible, and there is potential for this species to be in the BSA.

Victor's Gooseberry

The Victor's gooseberry is a CDFW state rank S4 (apparently secure – uncommon but are not rare; some cause for long-term concern due to declines or other factors) and CNPS 4.3 (plants of limited distribution and not very threatened in California) species. This species is a perennial deciduous shrub found in broadleaved upland forest and chaparral. The Victor's gooseberry is typically found at elevations between 328 and 2,460 feet above msl and typically blooms from March to April (California Native Plant Society, 2018) (Jepson Herbarium, 2018). There is suitable forest habitat in the BSA for the Victor's gooseberry; therefore, although this species was not observed during the biological surveys, which were conducted during the typical blooming period for this species, all areas within the BSA were not accessible, and there is potential for this species to be in the BSA.

Marsh Checkerbloom

The marsh checkerbloom is a CDFW state rank S2 and CNPS 1B.2 species. This species is a perennial herb found in meadows, seeps, riparian forest, and wetlands. This species is often found on wet soils or streambanks. The marsh checkerbloom is typically found at elevations between 1,492 and 6,660 feet above msl and typically blooms from July to August (California Native Plant Society, 2018) (Jepson Herbarium, 2018). There is suitable forest habitat in the BSA for the marsh checkerbloom. Although this species was not observed during the biological surveys, all areas within the BSA were not accessible; therefore, this species has potential to be in the BSA.

Napa Bluecurls

The Napa bluecurls is considered a CDFW state rank S1S2 and CNPS 1B.2 species. This species is an annual herb found in chaparral, cismontane woodland, lower montane coniferous forest, vernal pools, wetlands, and valley and foothill grassland at elevations between 98 and 2,230 feet above msl. The Napa bluecurls typically blooms from June to October (California Native Plant Society, 2018) (Jepson Herbarium, 2018). There is suitable woodland and annual grassland habitat in the BSA for Napa bluecurls. Although this species was not observed during the biological surveys, all areas within the BSA were not accessible; therefore, this species has potential to be in the BSA.

Dark-Mouthed Triteleia

The dark-mouthed triteleia is considered a CDFW state rank S4 and CNPS 4.3 species. This species is a perennial bulbiferous herb found in broadleaved upland forest, lower montane coniferous forest, chaparral, and coastal scrub at elevations typically between 328 and 3,280 feet above msl. The dark-mouthed triteleia typically blooms from April to June (California Native Plant Society, 2018) (Jepson Herbarium, 2018). There is suitable forest habitat in the BSA for the dark-mouthed triteleia. Although this species was not observed during the biological surveys, all areas within the BSA were not accessible; therefore, this species has potential to be in the BSA.

Oval-Leaved Viburnum

The oval-leaved viburnum is considered a CDFW state rank S3 and CNPS 2B.3 (plants that are rare, threatened, or endangered in California but more common elsewhere; and not very threatened in California) species. This species is a perennial deciduous shrub found in chaparral, cismontane woodland, and lower montane coniferous forest. The oval-leaved viburnum is typically found at elevations between 705 and 4,593 feet above msl and typically blooms from May to June (California Native Plant Society, 2018) (Jepson Herbarium, 2018). There is suitable woodland habitat in the BSA for the oval-leaved viburnum; therefore, although this species was not observed during the biological surveys, which were conducted during the typical blooming period for this species, all areas within the BSA were not accessible, and there is potential for this species to be in the BSA.

Impacts

The temporary removal or trampling of vegetation to accommodate the proposed bridge and roadway alignment could result in direct impacts on special-status plant species should they be in the construction area. In addition, earthwork and demolition activities would temporarily increase dust in the construction area, which could result in indirect impacts on special-status plant species, should they be in the construction area. To accommodate the new road, driveway improvements, the 6-foot roadway maintenance buffer required by the County, and the placement of RSP along the new bridge abutments, permanent vegetation removal would be required, which could result in direct impacts on special-status plant species, should they be in the construction area. In addition, permanent removal of Mixed Oak Forest, California Bay Forest, and Annual Brome Grassland could result in permanent, indirect impacts on special-status plant species.

However, the project would be constructed in compliance with dust control regulations, and with the implementation of avoidance and minimization measures **AVM-BIO-1** to **AVM-BIO-3** and mitigation measure **MM-BIO-4**, impacts on special-status plant species would be minimized or avoided, and the project would result in less than significant impacts with mitigation incorporated.

Wildlife

Based on habitat requirements and survey results, the following 27 special-status wildlife species have

potential to be in the BSA and could be impacted by the project. Of the 27 special-status species, the California red-legged frog and steelhead are listed as federally threatened under the FESA.

Amphibians

California Giant Salamander

The California giant salamander is considered a CDFW state rank S2S3 species and is listed as a Species of Special Concern (SSC) by the CDFW. The California giant salamander is found in or near streams within humid coastal forests, especially in Douglas fir, redwood, red fir, and montane and valley foothill riparian habitats. The species' range is known from Mendocino County south to Monterey County, and east to Napa County. Aquatic adults and larvae are found in cold, clear rocky streams, and occasionally in lakes and ponds. Terrestrial adults are found under surface litter, underground tunnels, wet forests under rocks and logs, and near streams and lakes. No California giant salamanders were observed during biological surveys conducted for the project. However, there is suitable riparian and aquatic habitat in the BSA for the California giant salamander; therefore, there is potential for this species to be in the BSA.

Foothill Yellow-Legged Frog

The north/northwest clade of the foothill yellow-legged frog is a CDFW state rank S3 species and is listed as an SSC by the CDFW (California Department of Fish and Wildlife, 2020). The foothill yellow-legged frog is found in partly shaded, shallow streams and riffles with rocky substrate in a variety of habitats. Individuals seek cover under rocks in streams or on shore within a few feet of water. This species is rarely encountered (even on rainy nights) far from permanent water. The foothill yellow-legged frog requires cobble-sized substrate for egg-laying and needs at least 15 weeks to attain metamorphosis. No foothill yellow-legged frogs were observed during biological surveys conducted for the project; however, there is suitable woodland and riparian habitat in the BSA. In addition, a foothill yellow-legged frog was observed in 2011 within Dry Creek approximately 0.5 mile downstream of the project (personal communications with County environmental specialist Jeremy Sarrow). Therefore, there is potential for this species to be in the BSA.

California Red-Legged Frog

The California red-legged frog is federally listed as threatened under FESA and is considered a SSC by the CDFW. The California red-legged frog is found in lowlands and foothills in or near permanent sources of deep water with dense, shrubby, or emergent vegetation, including Typha sp., Scirpus sp., and Salix sp. Individual range can vary from water along riparian corridors, damp thickets, and forests. Breeding typically takes place from November through April in seasonal or permanent ponds, marshes, or quiet stream pools at depths approximately 2.5 feet or greater. Upland areas adjacent to riparian zones provide estivation and dispersal habitats. The species may estivate in rodent burrows, logs, densely vegetated areas, large cracks in the bottom of dried ponds, and sometimes man-made structures such as culverts and livestock troughs during dry periods. Aestivation sites are typically within 100 feet from water in adjacent riparian vegetation (USFWS, 2002) (USFWS, 2017).

The California red-legged frog has been observed within 10 miles of the BSA, with the closest observation approximately eight miles to the southwest. There is no known hydrological connection between these populations and Dry Creek, and there are large topographical features between these populations and the BSA. In addition, no California red-legged frogs were observed during biological surveys conducted for the project. However, there is suitable aquatic, riparian, and woodland habitat in the BSA. Within the BSA, Dry Creek contains suitable deep- water pools and shrubby emergent aquatic vegetation required for breeding. In addition, the BSA is vegetated with Mixed Oak Forest, an oak woodland habitat suitable for upland dispersal. Therefore, the potential for this species to be in the BSA cannot be ruled out. The project

is outside of designated California red-legged frog critical habitat.

Coast Range Newt

The Coast Range newt is considered a SSC by the CDFW. The Coast Range newt is found in coastal drainages from Mendocino County to San Diego County. This species is primarily found in valley foothill hardwood, valley foothill hardwood-conifer, coastal scrub, and mixed chaparral, but has also been found in annual grassland and mixed conifer habitats. This species elevation range extends from near sea level to 6,000 feet. Breeding and egg-laying take place in intermittent streams, rivers, permanent and semi-permanent ponds, lakes, and large reservoirs. Adults live in terrestrial habitats and typically travel within 3,300 feet to breeding sites. Some individuals may migrate over 0.5 mile to breed. No Coast Range newts were observed during biological surveys conducted for the project. However, there is suitable woodland and aquatic habitat in the BSA; therefore, there is potential for this species to be in the BSA.

Impacts

Demolition of the existing bridge over Dry Creek (and associated roadway), and construction of a new single-span bridge and new roadway encroachment could result in temporary and permanent impacts on special-status amphibian species, should they be in the construction area. Construction activities including earthwork, vegetation removal, installation of water diversions, and demolition activities within the Mixed Oak Forest community, California Bay Forest community, and the Dry Creek channel could result in temporary impacts on breeding, upland and dispersal habitat suitable for special-status amphibians. This temporary loss in habitat could result in an indirect impact on special-status amphibian species, should they be in the construction area.

Construction activities, such as vegetation removal, grading, bank stabilization, and placement of RSP, could directly impact special-status amphibians should they be in the construction area and be trampled or crushed by vehicles or equipment. To accommodate the new road, driveway improvements, the 6-foot roadway maintenance buffer required by the County, and the placement of RSP along the new bridge abutments, the project would require permanent impacts on the Mixed Oak Forest and California Bay Forest communities, which may provide potential breeding, upland and dispersal habitat suitable for special-status amphibians. This permanent loss in habitat could result in an indirect impact on special-status amphibian species, should they be in the construction area.

However, with the implementation of the proposed avoidance and minimization measures **AVM-BIO-5** to **AVM-BIO-22**, significant impacts on the California giant salamander, Coast Range newt, California red-legged frog, and foothill yellow-legged frog are not expected. In addition, although presence of the California red-legged frog in the BSA is inferred, there is a low potential for encountering the species during construction. With the implementation of avoidance and minimization measures, no direct take of the California red- legged frog is anticipated and any project impacts would be discountable. Therefore, the project is anticipated to have less than significant impacts with mitigation incorporated. The presence of the foothill yellow-legged frog in Dry Creek is also inferred based on known observations downstream of the BSA. However, because the foothill yellow-legged frog is highly aquatic, the project may result in direct impacts on the foothill yellow-legged frog. However, with implementation avoidance and minimization measures **AVM-BIO-5** to **AVM-BIO-22**, and completion of mitigation for jurisdictional waters and wetlands identified in measure **MM-BIO-51**, the project would result in less than significant impacts with mitigation incorporated.

Birds

Cooper's Hawk

The Cooper's hawk is considered a Watch List species by the CDFW. The Cooper's hawk is found in cismontane woodland, riparian forest, riparian woodland, and upper montane coniferous forest. This species nests mainly in riparian growths of deciduous trees, often in canyon bottoms on river flood-plains, and would also nest in live oaks. No Cooper's hawks or trees with old raptor nests were observed during biological surveys conducted for the project. However, there is suitable nesting and foraging habitat within the BSA; therefore, there is potential for this species to be in the BSA.

Sharp Shinned Hawk

The sharp-shinned hawk is considered a Watch List species by the CDFW. This species is found in ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine (*Pinus jeffreyi*) habitats. This species prefers riparian areas along north-facing slopes. Plucking perches are critical requirements. Nests are usually within 275 feet of water. No sharp-shinned hawk or trees with old raptor nests were observed during biological surveys conducted for the project. However, there is suitable nesting and foraging habitat within the BSA; therefore, there is potential for this species to be in the BSA.

Great Egret

The great egret is considered a CDFW state rank S4 species. The great egret is found in brackish marsh, estuary, freshwater marsh, riparian forests, and wetlands. This species nests colonially in large trees. The rookery sites are located near marshes, tide-flats, irrigated pastures, and margins of rivers and lakes. The great egret feeds mainly on small fish, but will also eat amphibians, reptiles, small mammals, and invertebrates. No great egrets, signs of a rookery, or roost site were observed during the biological surveys conducted for the project and there is no suitable nesting habitat in the BSA. However, there is suitable foraging habitat within the BSA; therefore, there is potential for this species to forage in the BSA, but it is not expected to nest in the BSA.

Great Blue Heron

The great blue heron is considered a CDFW state rank S4 species. This species nests colonially in tall trees, cliff sides, and sequestered spots on marshes. The great blue heron forages in marshes, lake margins, tidal flats, rivers, streams, and wet meadows. The rookery sites are in close proximity to foraging areas. No great blue herons, signs of a rookery, or roost site were observed during biological surveys conducted for the project. However, there is suitable foraging habitat within the BSA; therefore, there is potential for this species to forage in the BSA, but it is not expected to nest in the BSA.

Snowy Egret

The snowy egret is considered a CDFW state rank S4 species. The snowy egret is found in marshes and swamps, meadows and seeps, riparian forest, riparian woodland, and wetlands. This species is a colonial nester with nest sites situated in protected beds of dense tules or within trees or shrubs five to 10 feet above the ground. Rookery sites are situated close to foraging areas. The snowy egret forages in shallow water for fish, insects, and crustaceans, and may also forage in open fields. No snowy egrets, signs of a rookery, or roost site were observed during biological surveys conducted for the project. However, there is suitable foraging habitat within the BSA; therefore, there is potential for this species to forage in the BSA, but it is not expected to nest in the BSA.

Yellow-Breasted Chat

The yellow-breasted chat is considered a SSC by the CDFW. The yellow-breasted chat is found in riparian

forests, riparian scrub, and riparian woodlands. The yellow-breasted chat nests in low, dense riparian thickets near water courses, consisting of willow, blackberry, and wild grape. The species forages and nests within 10 feet of the ground. No yellow-breasted chats were observed during biological surveys conducted for the project. However, there is suitable nesting and foraging habitat within the BSA; therefore, there is potential for this species to be in the BSA.

Black-Crowned Night Heron

The black-crowned night heron is considered a CDFW state rank S4 species. This species is primarily nocturnal or crepuscular and is found in marshes, swamps, riparian forests, riparian woodlands, and wetlands. The rookery sites are usually located near aquatic or emergent foraging sites within dense-foliaged trees, dense emergent wetlands, dense shrubbery, or vine tangles. Non-breeding roosts may be farther away from nesting sites. This species is a colonial nester, usually in trees, and occasionally in tule patches. No black-crowned night herons, signs of a rookery, or roost site were observed during biological surveys conducted for the project. However, there is suitable foraging habitat within the BSA; therefore, there is potential for this species to forage in the BSA, but it is not expected to nest in the BSA.

Purple Martin

The purple martin is considered a SSC by the CDFW. This species is a summer migrant found in valley foothill and montane hardwood/hardwood-conifer, coniferous, and riparian habitats. The purple martin nests in tall, old, isolated trees or snags in open forest or woodland and in close proximity to a body of water. This species frequently nests in old woodpecker cavities but has also been found nesting in human-made structures such as bridges and culverts. Foraging habitats must provide large amounts of aerial insects. No purple martins were observed during biological surveys conducted for the project. However, there is suitable nesting and foraging habitat within the BSA; therefore, there is potential for this species to be in the BSA.

Yellow Warbler

The yellow warbler is considered a SSC by the CDFW. This species is found in riparian habitats near water. The yellow warbler also nests in montane shrubbery in open conifer forests in the Cascades and Sierra Nevada. The yellow warbler is frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods (*Aigeiros sp.*), sycamores (*Plantanus sp.*), ash (*Fraxinus sp.*), and alders (*Alnus sp.*). There is suitable nesting and foraging habitat within the BSA and potential for this species to be in the BSA. In addition, an adult yellow warbler was observed foraging during the April 27, 2017, biological survey conducted for the project.

Impacts

Construction would require vegetation removal and work on the bridge structure, including structure demolition, which could directly impact migratory birds and raptors if these activities are conducted while birds are nesting within or adjacent to the affected areas. Temporary noise generating activities, bridge demolition, and road creation, could also result in temporary indirect impacts on nesting birds and raptors if loud enough to result in disturbance. In addition, construction activities could temporarily disrupt foraging in the construction area.

The new road, driveway improvements, and the 6-foot roadway maintenance buffer required by the County, would result in minimal permanent losses of the Mixed Oak Forest, California Bay Forest and Annual Brome Grassland communities, which may provide potential breeding and foraging habitat to special-status bird species. This permanent loss in habitat could result in an indirect impact on special-status bird species, should they be present in the construction area.

However, with the implementation of avoidance and minimization measures listed below, no take or adverse impacts on special-status bird species or nesting migratory birds are anticipated. With implementation of avoidance and minimization measures **AVM-BIO-23** to **AVM-BIO-25**, impacts on special-status bird species and nesting migratory birds would be avoided or minimized, and the project would result in less than significant impacts.

Fish

Steelhead – Central California Coast DPS

Steelhead is listed as threatened under FESA and is considered a state rank S2S3 species by the CDFW. Steelhead are found in the Russian River, south to Soquel Creek and to, but not including the Pajaro River. They are also present in San Francisco and San Pablo Bay basins. Steelhead are anadromous fish that spend part of their life cycle in freshwater and part in salt water. This species spawns in small, freshwater streams where the young remain from one to several years before migrating to the ocean to feed and mature. Adults return to their natal streams to spawn and complete their life cycle (NMFS, 2016).

Dry Creek is a known spawning and rearing stream for steelhead. Both the mature adults and young of the year are regularly observed within the BSA by local residents. In addition, Dry Creek was designated as critical habitat for this species in September 2005 (USFWS, 2005). Dry Creek in the BSA is considered steelhead critical habitat. Creek conditions favorable to steelhead within the BSA include suitable water quality and adequate natural cover such as shade, aquatic vegetation, and large rocks. Based on other steelhead populations in adjacent Sonoma County, steelhead spawning typically begins in January and continues through mid-April. While the exact timing of steelhead within the Napa River Watershed is unknown, adult migrating steelhead would be expected to enter the Dry Creek Subwatershed within this time range. Juvenile steelhead remain in cool, shady perennial streams for one or more years before migrating out to the ocean (Napa County WICC, 2018).

Impacts

Construction materials, dust, and debris from bridge removal, construction activities, and bank re-establishment could fall into Dry Creek and result in temporary indirect effects on steelhead by disrupting water quality. Removal of vegetation and trees along the banks could also have temporary indirect effects on this species by removing shade and potentially increasing the risk for erosion and sediments entering the stream, which could alter water temperature and quality for steelhead within the BSA. Demolition of the existing bridge abutments and the installation and removal of a water diversion structure could result in direct impacts on migrating adult steelhead or juvenile steelhead, which could be present year-round. Because steelhead could be present in Dry Creek at any time of the year, avoidance of direct impacts would only be possible if project activities completely avoided the wetted channel. In addition, handling and moving of steelhead could cause injury and/or mortality. Therefore, construction of the project may result in “take” of an individual steelhead, should an individual be killed, injured, or handled during in-water work.

The project includes the full demolition of the existing bridge, wingwalls, existing abutment on the western bank (Abutment One), the partial demolition of the existing abutment on the eastern bank (Abutment Two), and placement of RSP, which would require temporary excavation disturbance and/or encroachment within the OHWM. The RSP would be placed within the OHWM and keyed into the Dry Creek bank slopes. The new bridge structure would clear-span Dry Creek, with both abutments located outside of the Dry Creek channel. In addition, at Abutment One, the channel slope would be restored using a “soil burrito” and root wad system to re-establish the natural channel vegetation. “Toe rock” would also be placed at the western toe of slope in the stream to stabilize the “soil burritos” and willow staking. However, the toe rock would not function as traditional RSP and would predominantly be situated

below ground. The purpose of the toe rock is to anchor the "soil burritos" and willow stakes in place to provide stability. At Abutment Two, regrading and/or use of toe rock would not be necessary because it is founded on rock, which is scour resistant. Only the western creek bank on the south side of the existing bridge would be regraded to a lesser slope (an approximately 4:1 or 3:1 slope), which would require some excavation, and "soil burritos" would be placed on top of the new slope and staked into place. A total of four root wads would be placed approximately around the existing bridge location. The root wads would be placed at the toe of the embankment.

Construction materials, dust, and debris could result in temporary direct impacts on steelhead critical habitat if materials were to enter flowing water within the channel during bridge construction, bridge removal, installation of RSP, and bank and channel re-establishment efforts. In addition, installation of a temporary water diversion to the streambed, and removal of the existing bridge abutments, could result in direct impacts to the steelhead critical habitat. The project would also have minor permanent direct impacts on steelhead critical habitat with the placement of less than 0.005 acre of RSP within the OHWM. Temporary direct impacts on steelhead critical habitat include the removal of overhanging vegetation along the creek banks.

However, removal of the existing bridge would result in beneficial permanent impacts on steelhead critical habitat because the bank slopes would be re-contoured and stabilized to prevent scour. A "soil burrito" method is proposed for the bank stabilization, which is a combination of rolled biodegradable fabrics with native soils, which would be planted with native cuttings to promote riparian growth. The banks would be vegetated with willow cuttings and a total of four root wads would be installed to minimize impacts on steelhead critical habitat to the greatest extent feasible. In addition, as a benefit to the Dry Creek channel, construction would also include widening the existing, artificially narrow, channel bottleneck created at the existing bridge abutments to a more natural contour profile and enhance the water quality and mobility elements of steelhead critical habitat.

With the implementation of avoidance and minimization measure **AVM-BIO-26**, mitigation measures **MM-BIO-27 and MM-BIO-28** (Fish), avoidance and minimization measures **AVM-BIO-43** to **AVM-BIO-50**, and mitigation measure **MM-BIO-51** (Jurisdictional Wetlands and Waters Section), impacts on steelhead would be substantially minimized. However, because in-water work is anticipated, the project may result in direct take (harm, harass or mortality) of steelhead. Therefore, the project is anticipated to have less than significant impacts with mitigation incorporated.

Invertebrates

Western Bumble Bee

The western bumble bee is considered a CDFW state rank S1 (critically imperiled – extreme rarity [often five or fewer occurrences] or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from California) species. This species is a generalist forager of a wide variety of flowering plants and typically nests underground in abandoned rodent burrows or other cavities, such as old squirrel or other animal nests, and in open west-southwest slopes bordered by trees. However, a few nests have been reported from above-ground locations such as in logs among railroad ties. No western bumble bees or western bumble bee nesting cavities were observed during biological surveys conducted for the project. However, there are suitable foraging habitat and nesting cavities in the BSA; therefore, there is potential for this species to be in the BSA.

Impacts

Construction would require vegetation removal and ground disturbance that could result in direct impacts

on the western bumble bee, should this species be in the construction area. Direct impacts on this species could result from nesting cavities being trampled by vegetation removal and/or excavation.

The new road, driveway improvements, and the 6-foot roadway maintenance buffer required by the County, would result in permanent loss of the Mixed Oak Forest, California Bay Forest and Annual Brome Grassland communities, which could result in an indirect impact on the western bumble bee, should the species be in the construction area. With implementation of avoidance and minimization measures **AVM-BIO-29** through **AVM-BIO-32**, impacts on western bumble bee would be avoided or minimized, and the project would result in less than significant impacts.

Mammals

North American Porcupine

The North American porcupine is considered a state rank S3 species. This largely nocturnal species is found in broadleaved upland forests, cismontane woodlands, closed-cone coniferous forest, lower montane coniferous forest, north coast coniferous forest, and upper montane coniferous forests. Geographically, the North American porcupine's range includes suitable forested habitats in the Sierra Nevada, Cascade, and Coast ranges, with scattered observations from forested areas in the Transverse Ranges. This species dens in caves, crevices in rocks, cliffs, hollow logs, snags, and burrows of other animals; however, they will use dense foliage in trees if other sites are unavailable (Mayer, White, Laudenslayer, & Zeiner, 1988-1990). Den sites are typically used during the cold winter months and North American porcupines frequently move between several different sites (CDFW, 1995). No North American porcupines or den sites were observed during biological surveys conducted for the project. However, there is suitable woodland habitat in the BSA; therefore, there is potential for this species to be in the BSA.

Pallid Bat

The pallid bat is considered a SSC by the CDFW. The pallid bat is found year-round in a variety of low-elevation habitats in most parts of California, including grasslands, shrublands, woodlands, and forests. This species is thought to prefer open, dry habitats with rocky areas for roosting. The pallid bat day roosts in caves, crevices, mines, and hollow trees, buildings, and bridges, and night roosts in more open sites, such as porches, open buildings, and bridges. Roosts must protect bats from high temperatures, and this species will move deeper into cover if temperatures rise. The pallid bat is highly sensitive to disturbance. No pallid bats were observed during biological surveys conducted for the project and no potential day roosts are present in the existing bridge structure. However, there is suitable roosting and foraging habitat within the BSA; therefore, there is potential for this species to be in the BSA.

Townsend's Big-Eared Bat

The Townsend's big-eared bat is considered a SSC by the CDFW. The Townsend's big-eared bat is found in diverse habitat types throughout California, including coniferous forests, deserts, native prairies, riparian communities, agricultural areas, and coastal habitats. This species is thought to be most abundant in mesic habitats. The Townsend's big-eared bat roosts in caves and cave-like structures, such as exposed cavity-forming rock and mines. This species will also roost in human structures such as attics and barns and on occasion has been found in bridges. Townsend's big-eared bats prefer to roost in large rooms and do not use crevices. The Townsend's big-eared bat is extremely sensitive to human disturbance. No Townsend's big-eared bats were observed during biological surveys conducted for the project and no potential day roosts are present in the existing bridge structure. However, there is suitable roosting and foraging habitat within the BSA; therefore, there is potential for this species to be in the BSA.

Silver-Haired Bat

The silver-haired bat is considered a state rank S3S4 species. The silver-haired bat is found in coastal and montane coniferous forests, valley foothill woodlands, pinyon-juniper woodlands, and valleys. This species has been recorded throughout California, with a concentration in northern California. The silver-haired bat roosts in hollow trees, snags, buildings, rock crevices, caves, and under bark. Females may form nursery colonies or may be a solitary individual in dense foliage or hollow trees. This species is thought to need roosting sites in close proximity to water. No silver-haired bats were observed during biological surveys conducted for the project and no potential day roosts are present in the existing bridge structure. However, there is suitable roosting and foraging habitat in the BSA; therefore, there is potential for this species to be in the BSA.

Western Red Bat

The western red bat is considered a SSC by the CDFW. The western red bat roosts in forests and woodlands from sea level up through mixed conifer forests. This species roosts primarily in trees, sometimes shrubs; roost sites often are in edge habitats adjacent to streams, fields, or urban areas. This species forages over a wide variety of habitats including grasslands, shrublands, open woodlands and forests, and croplands. No western red bats were observed during biological surveys conducted for the project and no potential day roosts are present in the existing bridge structure. However, there is suitable roosting and foraging habitat in the BSA; therefore, there is potential for this species to be in the BSA.

Western Small-Footed Myotis

The western small-footed myotis is considered a state rank S3 species. This species is found in a wide range of habitats and is generally found in arid woodlands and brushy upland areas near water. This species prefers open stands in forests and woodlands, and roosts in caves, buildings, mines, and crevices. No western small-footed myotis were observed during biological surveys conducted for the project and no potential day roosts are present in the existing bridge structure. However, there is suitable roosting and foraging habitat in the BSA; therefore, there is potential for this species to be in the BSA.

Long-Eared Myotis

The long-eared myotis is considered a state rank S3 species. This species is found in brush, woodland, and forest habitats from sea level to about 9,000 feet. The long-eared myotis species prefers coniferous woodlands and forests. Nursery colonies may be in buildings, crevices, spaces under bark, and snags, while caves are used primarily as night roosts. No long-eared myotis were observed during biological surveys conducted for the project and no potential day roosts are present in the existing bridge structure. However, there is suitable roosting and foraging habitat in the BSA; therefore, there is potential for this species to be in the BSA.

Fringed Myotis

The fringed myotis is considered a state rank S3 species. This species is found in a wide variety of habitats, but optimal habitats include pinyon-juniper, valley foothill hardwood and hardwood-conifer communities. The fringed myotis uses caves, mines, buildings, or crevices for maternity colonies and roosts. No fringed myotis were observed during biological surveys conducted for the project and no potential day roosts are present in the existing bridge structure. However, there is suitable roosting and foraging habitat in the BSA; therefore, there is potential for this species to be in the BSA.

Long-Legged Myotis

The long-legged myotis is considered a state rank S3 species. This species is most common in woodland and forest habitats above 4,000 feet elevation. Trees are important day roosts while caves and mines are

used for night roosts. Nursery colonies usually are located under tree bark or in hollow trees but will occasionally be in crevices or buildings. No long-legged myotis were observed during biological surveys conducted for the project and no potential day roosts are present in the existing bridge structure. However, there is suitable roosting and foraging habitat in the BSA; therefore, there is potential for this species to be in the BSA.

Yuma Myotis

The Yuma myotis is considered a state rank S4 species. The Yuma myotis is common in California. Optimal habitats for this species are open forests and woodlands with sources of water over which to feed, but this species has been documented in many urban areas. The Yuma myotis roosts in buildings, mines, caves, or crevices. The species also has been seen roosting in abandoned swallow nests and under bridges. Separate, often more open, night roosts may be used. No Yuma myotis were observed during biological surveys conducted for the project and no potential day roosts are present in the existing bridge structure. However, there is suitable roosting and foraging habitat in the BSA; therefore, there is potential for this species to be in the BSA.

Impacts

Construction activities could directly impact North American porcupines and/or their dens if they were to be trampled or crushed by vehicles or equipment during vegetation removal, or by vehicle strikes during nighttime work. Noise and habitat disturbance resulting from construction activities could indirectly impact any North American porcupines in the construction area during construction. The new road, driveway improvements, and the 6-foot roadway maintenance buffer required by the County, would result in a permanent loss of the Mixed Oak Forest, California Bay Forest and Annual Brome Grassland communities, which may provide potential denning and foraging habitat for the North American porcupine. With implementation of avoidance and minimization measures **AVM-BIO-33** through **AVM-BIO-36**, impacts on the North American porcupine would be avoided or minimized, and the project would result in less than significant impacts.

Bats could be directly impacted if they were to be roosting in vegetation removed during construction. Construction could also indirectly impact bats through noise and vibration disturbance if bats were to be roosting in trees immediately adjacent to construction activities. The removal of trees could also result in a permanent loss of roosting and foraging habitat for bats. However, there is no bat roosting habitat in the existing structure, so there would be no permanent loss of a known roosting site. With implementation of avoidance and minimization measures **AVM-BIO-37** through **AVM-BIO-42**, impacts on bats would be avoided or minimized, and the project would result in less than significant impacts.

b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS?

Jurisdictional Wetlands and Waters

Less Than Significant with Mitigation Incorporated. Dry Creek has year-round flow; therefore, a water diversion may be required to work inside the wetted portion of the channel for the new bridge construction, existing bridge removal, and bank and channel re-establishment. Equipment access required to place RSP along the new abutments, and construction of the new bridge, would also result in temporary impacts. During demolition of the old bridge, the bank slopes would be re-contoured and stabilized to prevent scour. Bank stabilization would be conducted using a “soil-burrito” method, a combination of rolled biodegradable fabrics with native soils, which would be planted with native cuttings to promote riparian growth. In addition, construction materials, dust, and debris could result in temporary indirect

impacts on water quality if materials were to enter flowing water within the channel during vegetation removal, bridge construction, bridge removal, and bank and channel re-establishment efforts. Construction activities, including water diversion, vegetation removal, new bridge construction, old bridge removal, slope stabilization efforts and excavation in the creek channel to support the installation of RSP, would result in temporary impacts on approximately 0.01 acre of wetlands and approximately 0.05 acre of non-wetland waters under jurisdiction of USACE and RWQCB. In addition, the project would result in temporary impacts on approximately 0.34 acre under jurisdiction of the CDFW.

The RSP would be placed within the OHWM and keyed into the bank slopes. Following placement of the RSP, the slope would be re-vegetated using willow cuttings to provide additional slope stabilization. Permanent impacts within the OHWM are anticipated from the placement of RSP along the new abutments, which would result in permanent impacts of less than 0.005 acre on wetlands under the jurisdiction of the USACE and RWQCB. Construction of the new roadway approach and placement of the RSP would result in approximately 0.11 acre of permanent impacts on riparian habitat under jurisdiction of the CDFW.

Impacts

Although the project would result in impacts on jurisdictional features, the project would be conducted in compliance with applicable water quality and dust control regulations and regulatory permits. With implementation of avoidance and minimization measures **AVM-BIO-43** through **AVM-BIO-50** and mitigation measure **MM-BIO-51**, the project would result in less than significant impacts with mitigation incorporated.

Natural Community – Oak Woodlands

The project would require vegetation removal and ground disturbance within the Mixed Oak Forest community surrounding the existing bridge and the proposed roadway alignment. Construction activities associated with the cut/fill of the roadway alignment and equipment access would result in approximately 0.74 acre of temporary impacts on the Mixed Oak Forest community. Construction activities associated with construction of the new road, driveway improvements, and establishment of the 6-foot roadway maintenance buffer required by the County, would result in approximately 0.47 acre of permanent impacts on the Mixed Oak Forest community. Although project impacts on the Mixed Oak Forest community would be temporary, any removal of an established and mature oak woodland habitat would result in a long temporal loss of function. Planting juvenile saplings within a disturbed oak woodland can take decades to restore the functions of the removed mature trees, such as the California black oak and oracle oak, which typically take 30 years to begin producing acorns (USFS, 2007).

Impacts

Impacts on the Mixed Oak Forest community would be minimized to the greatest extent feasible. With implementation of avoidance, and minimization measures **AVM-BIO-52** to **AVM-BIO-55**, impacts on oak woodlands would be less than significant.

c. Would the project have a substantial adverse effect on state or federally protected (including but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less Than Significant with Mitigation Incorporated. See discussion in response (b) above. The project would result in impacts on wetlands and other waters of the U.S. and state. Because the project would impact waters of the U.S., a Section 404 Permit and a Section 401 Water Quality Certification would be

required. Work would be required within the creek, which is under jurisdiction of the CDFW; therefore, a Section 1602 Streambed Alteration Agreement would be required. Permit applications and/or notifications would be submitted to the regulatory agencies prior to construction. With implementation of avoidance and minimization measures **AVM-BIO-43** through **AVM-BIO-50**, mitigation measure **MM-BIO-51**, and adherence to regulatory permits, impacts would be less than significant with mitigation.

d. Would the project 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?

Less Than Significant with Mitigation Incorporated. The General Plan classifies the land surrounding the BSA as Agriculture, Watershed, and Open Space. According to the CDFW BIOS, there are no essential wildlife connectivity areas or natural landscape blocks in the BSA. However, Dry Creek is a known migratory corridor for steelhead. While the BSA is not a high priority migration or travel corridor for terrestrial wildlife, the areas within the BSA may be used for local foraging and movement of terrestrial wildlife species in the project vicinity.

Dry Creek is a known spawning and rearing stream for steelhead. In addition, Dry Creek was designated as critical habitat for this species in September 2005 (USFWS, 2005). Dry Creek in the BSA is considered steelhead critical habitat. Creek conditions favorable to steelhead within the BSA include suitable water quality and adequate natural cover such as shade, aquatic vegetation, and large rocks. Based on other steelhead populations in adjacent Sonoma County, steelhead spawning typically begins in January and continues through mid-April. While the exact timing of steelhead within the Napa River Watershed is unknown, adult migrating steelhead would be expected to enter the Dry Creek Subwatershed within this time range.

Construction materials, dust, and debris could result in temporary direct impacts on steelhead critical habitat if materials were to enter flowing water within the channel during bridge construction, bridge removal, and bank and channel re-establishment efforts. In addition, installation of a temporary water diversion to the streambed, should a diversion be used, and removal of the existing bridge abutments, could result in direct impacts on the streambed. The project would also have minor permanent direct impacts on steelhead critical habitat with the placement of less than 0.005 acre of RSP within the OHWM. However, the RSP would be vegetated with willow cuttings to minimize impacts on steelhead critical habitat to the greatest extent feasible. After construction, the Dry Creek channel would be restored to previous contours, to the extent feasible. In addition, as a benefit to the Dry Creek channel, construction would also include widening the existing, artificially narrow, channel bottleneck created at the existing bridge abutments to a more natural contour profile. Temporary indirect impacts on steelhead critical habitat include the removal of overhanging vegetation along the banks of Dry Creek.

Removal of the existing bridge would result in permanent indirect impacts on steelhead critical habitat because the bank slopes would be re-contoured and stabilized to prevent scour. A “soil- burrito” method is proposed for the bank stabilization, which is a combination of rolled biodegradable fabrics with native soils, which would be planted with native cuttings to promote riparian growth. With the implementation of avoidance and minimization measures **AVM-BIO-26**, (Fish), and **AVM-BIO-43** to **AVM-BIO-50** (Jurisdictional Wetlands and Waters Section), and mitigation measures **MM-BIO-27** to **MM-BIO-28** (Fish), **MM-BIO-51** (Jurisdictional Wetlands and Waters Section), impacts on steelhead critical habitat would be substantially minimized. However, because in-water work is anticipated, the project may result in direct take (harm, harass or mortality) of steelhead. Therefore, the project is anticipated to have less than significant impacts with mitigation incorporated on the movement of any native resident or migratory fish or wildlife species and established native resident or migratory wildlife corridors and is not expected to

impede the use of native wildlife nursery sites.

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less Than Significant Impact. The Napa County Municipal Code includes Code 16.04.750 Riparian Zone-Restricted Activities that prohibits removal of more than the following per 100 linear feet of riparian zone on each side of the floodplain: a native tree 18 inches in diameter at breast height (DBH), three native trees at 12 inches DBH or greater, or six native trees at six inches DBH or greater. The removal of more than 500 square feet of vegetation within a riparian zone beyond 10 feet from the top of the bank, or the temporary removal of a portion of riparian vegetation not more than 15 feet wide beyond 10 feet from the top of the bank, is prohibited (Napa County, 2017). Although the project is a public works project, the County has determined that the project is exempt from Napa County Municipal Code 16.04.750 because the project is located several miles (approximately 10 miles) upstream from the section of Dry Creek that applies to Chapter 16.04; therefore, the project would not conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

The General Plan includes several policies that require the County to maintain and improve oak woodland habitat through appropriate measures and to comply with the Oak Woodlands Preservation Act for oak woodland preservation and retention. With implementation of avoidance and minimization measures **AVM-BIO-52** to **AVM-BIO-55**, the project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan (HCP); Natural Community Conservation Plan; or other approved local, regional, or state HCP?

No Impact. The BSA is not located within the limits of a regional conservation plan such as an HCP or Natural Community Conservation Plan; therefore, the project would not conflict with the provisions of an adopted HCP; Natural Community Conservation Plan; or other approved local, regional, or state HCP.

Avoidance, Minimization, and Mitigation Measures

Plants

To avoid and/or minimize impacts on special-status plants, the following avoidance and minimization measures (AVM) shall be implemented:

AVM-BIO-1 Prior to construction, a qualified biologist shall conduct rare plant surveys within the construction area. Surveys shall be conducted during the appropriate blooming period for species with potential to be in the construction area, to the extent feasible.

AVM-BIO-2 If a special-status plant species is found during pre-construction surveys, high visibility Environmentally Sensitive Area (ESA) protective fencing shall be installed around the special-status plants to prevent construction staff or equipment from entering this area. The ESA protective fencing buffer shall be species specific, with a minimum buffer radius based on the guidance from a qualified biologist.

AVM-BIO-3 If surveys cannot be conducted within the appropriate blooming period, if presence for any species cannot be ruled out for any other reason, or if ESA protective fencing around an observed population is not feasible, additional avoidance measures shall be implemented based on recommendations of a qualified biologist, to the extent feasible.

To mitigate impacts on special-status plants, the following mitigation measures (MM) shall be implemented:

MM-BIO-4 If it is determined that special-status plants shall be directly impacted by the project, a species- specific mitigation plan shall be prepared by a qualified biologist. The plan may include one or more of the following: plant relocation, seed collection and dispersal, on or off-site restoration, or payment into an agency-approved mitigation bank. The plan shall be implemented prior to the completion of the project.

Wildlife

Amphibians

To avoid and/or minimize impacts on special-status amphibians, the following measures shall be implemented:

AVM-BIO-5 Prior to the initiation of any work, including installation of exclusion fencing or clearing and grubbing activities, a qualified biologist would conduct an environmental worker awareness training for all personnel. The training would discuss the sensitive habitats and special-status species with the potential to be within the construction site and would review the project's avoidance and minimization measures, and permitting conditions associated with biological resources.

AVM-BIO-6 Pre-construction amphibian surveys shall be conducted within 24 hours prior to start of construction by a qualified biologist.

AVM-BIO-7 If a California giant salamander and/or Coast Range newt is found in the construction area, they shall be relocated by a qualified biologist upstream or downstream of the construction area to a location with suitable habitat.

AVM-BIO-8 If the California red-legged frog and/or foothill yellow-legged frog is found in the construction area, the encounter shall be treated on a case-by-case basis in coordination with regulatory agencies, but the general procedure shall be as follows: 1) work shall immediately be suspended in the vicinity of the animal; 2) a qualified biologist shall evaluate the animal; 3) the animal shall not be disturbed if it is not in danger and shall be allowed to exit the construction site on its own.

AVM-BIO-9 If the foothill yellow-legged frog is found in the construction area and the animal is at risk of harm, the animal shall be relocated by a qualified biologist to a secure, upstream or downstream location.

AVM-BIO-10 Following completion of pre-construction surveys, wildlife exclusion fencing shall be erected around the entire construction area, including on the creek banks, to prohibit wildlife from entering the active construction area. Wildlife exclusion fencing shall consist of construction grade polypropylene or similar fabric. The exclusion fencing shall be a minimum of three feet tall above ground and be buried a minimum of four inches underground with the base folded, so wildlife cannot burrow beneath or create entry points. The exclusion fencing shall remain in place throughout the duration of construction activities and shall be regularly inspected and maintained in good working order by the construction contractor. The fencing shall be completely removed following construction.

AVM-BIO-11 The exclusion fencing shall be periodically inspected for trapped wildlife by a qualified biologist.

AVM-BIO-12 Initial ground-disturbing activities shall be avoided between November 1 and March 31, which is when California red-legged frogs are most likely to be moving through upland

areas.

AVM-BIO-13 Following completion of daily work activities, any temporary breaks in the wildlife exclusion fencing to allow for construction shall be restored.

AVM-BIO-14 Materials stored on-site that could provide shelter for California red-legged and foothill yellow- legged frogs, such as on-site storage of pipes, conduits and other materials, shall be elevated above ground.

AVM-BIO-15 Trenches or pits one foot or deeper that are left unfilled for more than 48 hours shall be securely covered with boards or other similar material to prevent entrapment of California red- legged and foothill yellow-legged frogs.

AVM-BIO-16 During demolition of the existing road and bridge, all grindings and asphaltic-concrete waste shall be immediately removed offsite or be temporally stored onsite. If the waste is stored onsite, the waste shall be placed on construction grade plastic sheeting, geotextile fabric, or similar impervious material, and shall be stored a minimum of 100 feet from Dry Creek. On or before the date of project completion, the waste shall be transported to an approved disposal site.

AVM-BIO-17 No construction activities shall be allowed during rain events or within 24-hours following a rain event. Prior to construction activities resuming, a qualified biologist shall inspect the construction area and all equipment/materials for the presence of special-status amphibians.

AVM-BIO-18 Nighttime construction shall only be permitted for select activities on a case-by-case basis, such as a bridge pour, in coordination with a qualified biologist.

AVM-BIO-19 Take or suspected take of listed wildlife species shall be reported immediately to a qualified biologist. A qualified biologist shall be required to report the incident, or suspected incident, to the wildlife agencies within 24 hours.

AVM-BIO-20 All project-related vehicle traffic shall be restricted to established roads and construction areas, which include equipment staging, storage, parking, and stockpile areas.

AVM-BIO-21 No pets shall be allowed in the construction area, to avoid and minimize the potential for harassment, injury, and death of wildlife.

AVM-BIO-22 Plastic monofilament netting, or similar material in any form, shall not be used at the construction area.

With the implementation of avoidance and minimization measures, as concurred by the USFWS on October 1, 2021, take of California red-legged frog are not anticipated; therefore, no mitigation is proposed.

Birds

To avoid and/or minimize impacts on nesting birds and raptors, the following measures shall be implemented:

AVM-BIO-23 Trimming and removal of vegetation and trees shall be minimized and performed outside of the nesting season (February 1 to September 30), to the extent feasible.

AVM-BIO-24 In the event that trimming or removal of vegetation and trees must be conducted during the nesting season, nesting bird surveys shall be completed within 500 feet of the construction area by a qualified biologist no more than 48 hours prior to trimming or

clearing activities to determine if nesting birds are within the affected vegetation. Nesting bird surveys shall be repeated if trimming or removal activities are suspended for five days or more.

AVM-BIO-25 If nesting birds are found within 500 feet of the construction area, appropriate buffers consisting of orange flagging/fencing or similar (typically 300 feet for birds and 500 feet for raptors) shall be installed and maintained until nesting activity has ended, as determined in coordination with the project biologist and regulatory agencies, as appropriate.

With the implementation of avoidance and minimization measures, adverse impacts on, or take of, special-status birds are not anticipated; therefore, no mitigation is proposed.

Fish

To avoid and/or minimize impacts on steelhead and their designated critical habitat, the following measure shall be implemented:

AVM-BIO-26 Construction within the channel shall be limited to between June 15 and October 15.

To mitigate impacts on special-status plants, the following mitigation measures (MM) shall be implemented:

MM-BIO-27 The Dry Creek banks would be restored using a "soil burrito" (a combination of native soil, biodegradable fabric, and planting), root wad system, and/or similar method to re-establish the natural channel vegetation. Willow cuttings would be planted in the bank slopes.

MM-BIO-28 Willow cuttings shall be planted along the Dry Creek banks.

Avoidance measures (**AVM-BIO-43** through **AVM-BIO-50**) and mitigation measures (**MM-BIO-27**, **MM-BIO-28**, and **MM-BIO-51**) discussed in Jurisdictional Wetlands and Waters Section, and installation of root wads are anticipated to be adequate to mitigate, avoid, and minimize project impacts on steelhead and steelhead critical habitat, and no additional mitigation is proposed. However, mitigation requirements shall be finalized following completion of consultation with NMFS.

Invertebrates

To avoid and/or minimize impacts on the western bumble bee, the following measures shall be implemented:

AVM-BIO-29 Vegetation removal and excavation shall be reduced to the extent feasible.

AVM-BIO-30 Pesticides/insecticides shall not be used as part of the project.

AVM-BIO-31 Pre-construction surveys for western bumble bee nests shall be conducted within 72 hours prior to start of construction by a qualified biologist. If a western bumble bee nest is found during pre-construction surveys, high visibility ESA protective fencing, shall be installed around the nest to prevent construction staff or equipment from entering this area, to the extent feasible.

AVM-BIO-32 Areas temporarily impacted during construction shall be restored using native, regionally appropriate plant species. The native species palette shall include, at a minimum, four annual and four perennial species.

With the implementation of avoidance and minimization measures, adverse impacts on the western bumble bee are not anticipated; therefore, no mitigation is proposed.

Mammals

The following measures shall be implemented to avoid and/or minimize impacts on the North American porcupine:

AVM-BIO-33 Pre-construction surveys shall be conducted for North American porcupine dens within 72 hours prior to start of construction by a qualified biologist. If a den is found during pre-construction surveys, high visibility ESA protective fencing, shall be installed around the den to prevent construction staff or equipment from entering this area, to the extent feasible. If ESA protective fencing around an observed den is not feasible, additional avoidance measures shall be implemented based on recommendations of a qualified biologist.

AVM-BIO-34 All construction equipment and project-related vehicles shall observe a maximum speed limit of 20 mph throughout the construction area.

AVM-BIO-35 To prevent attracting wildlife to the construction area, all food trash shall be kept in wildlife- proof containers and any non-natural food sources shall not be left unattended.

AVM-BIO-36 No rodenticides shall be applied within the construction area throughout construction.

The following measures shall be implemented to avoid/or minimize impacts on bats:

AVM-BIO-37 Where feasible, tree removal shall be conducted outside of the maternal and non-active seasons for bats (October).

AVM-BIO-38 At least 30 days prior to construction, a thorough bat roosting habitat assessment shall be conducted of all trees and structures to be removed or otherwise impacted during construction. Visual and acoustic surveys shall be conducted for at least two nights at all identified roosting habitat to assess the presence of roosting bats. If presence is detected, a count and species analysis shall be completed to help assess the type of colony and usage.

AVM-BIO-39 No less than two weeks prior to construction, and during the non-breeding and active season (typically October), bats shall be safely evicted from roosts impacted by the project under the direction of a qualified biologist. Once bats have been safely evicted, exclusionary devices shall be installed to prevent bats from returning and roosting in these areas prior to removal. Roosts that shall not be impacted by the project shall be left undisturbed.

AVM-BIO-40 If the presence or absence of bats cannot be confirmed in potential roosting habitat, a qualified biologist shall be onsite during removal or disturbance of this area. If the biologist determines that bats are being disturbed during this work, work shall be suspended until bats have left the vicinity on their own or can be safely excluded under direction of the biologist. Work shall resume only once all bats have left the site and/or approval to resume work is given by a qualified biologist.

AVM-BIO-41 After completion of the bat roosting habitat assessment, and prior to tree removal, all trees with potential day roosting habitat, shall be removed using a two-step process. The tree removal shall be conducted over two consecutive days under the supervision of a qualified biologist.

For step one, all non-habitat trees adjacent to and/or surrounding potential habitat trees, as identified by the qualified biologist, shall be removed (or trimmed, if full removal can

be avoided) on the first of the two days. In addition, limited trimming of the potential bat roosting habitat trees (branches and small limbs with no potential roosting features) shall be completed on the first day. During Step one, construction crews shall only use hand tools (i.e. chainsaws or similar).

Step two shall be completed on the calendar day immediately following step one. Step two shall remove all the potential habitat trees that were previously trimmed and/or avoided during step one.

AVM-BIO-42 In the event that a maternal colony of bats is found, no work shall be conducted within 100 feet of the maternal roosting site until the maternal season is finished or the bats have left the site, or as otherwise directed by a qualified biologist. The site shall be designated as a sensitive area and protected as such until the bats have left the site. No activities shall be authorized adjacent to the roosting site. Combustion equipment, such as generators, pumps, and vehicles, shall not be parked or operated under or adjacent to the roosting site. Construction personnel shall not be authorized to enter areas beneath the colony, especially during the evening exodus (typically between 15 minutes prior to sunset and one hour following sunset).

With the implementation of avoidance and minimization measures, adverse impacts are not anticipated; therefore, no mitigation is proposed.

Jurisdictional Wetlands and Waters

In addition to compliance with the conditions of the required regulatory authorizations, to avoid and/or minimize potential impacts on jurisdictional wetlands and waters, the following measures shall be implemented:

AVM-BIO-43 Work areas shall be reduced to the maximum extent feasible.

AVM-BIO-44 Equipment staging and storage areas for vehicles, equipment, material, fuels, lubricants, and solvents shall be restricted to designated areas located a minimum of 100 feet away from Dry Creek and the adjacent riparian corridor.

AVM-BIO-45 Best management practices (BMP), such as silt fencing, fiber rolls, straw bales, or other measures shall be implemented during construction to minimize dust, dirt, and construction debris from entering the creek and drainage features, and/or leaving the construction area.

AVM-BIO-46 Appropriate hazardous material BMPs shall be implemented to reduce the potential for chemical spills or contaminant releases into the creek and drainage features including any non-stormwater discharge.

AVM-BIO-47 Removal of riparian vegetation shall be avoided to the maximum extent possible. Prior to construction, high visibility ESA protective fencing shall be installed at the limits of construction to prevent construction staff or equipment from further encroaching on Dry Creek or the adjacent riparian community.

AVM-BIO-48 All equipment refueling, and maintenance shall be conducted in the staging area away from the creek and drainage features. In addition, vehicles and equipment shall be checked daily for fluid and fuel leaks, and drip pans shall be placed under all equipment that is parked and not in operation. Any leaking vehicle or equipment shall not be operated at the project area until repaired. All workers shall be informed of the importance of preventing spills and the appropriate measures to take should a spill

happen.

AVM-BIO-49 Stationary equipment such as motors, pumps, generators, compressors, and welders located within 100 feet of Dry Creek shall be positioned over drip-pans, including when in operation.

AVM-BIO-50 Any temporary erosion control implemented during construction shall be completed using non-invasive species. At project completion, all temporarily disturbed areas shall be re- contoured to the pre-construction condition and re-vegetated using native species.

To mitigate impacts on jurisdictional features, the following measure shall be implemented:

MM-BIO-51 Mitigation for permanent impacts on riparian habitat shall be accomplished through the purchase of in-lieu fees, on-site mitigation, or purchase of mitigation bank credits. Mitigation shall be at a minimum ratio of 2:1 for permanent impacts and 1:1 for temporary impacts; however, the final ratio shall be established through consultation and coordination with regulatory agencies during the permitting process.

Oak Woodlands

To avoid and/or minimize impacts on oak woodlands, the following measures shall be implemented:

AVM-BIO-52 Removal of oak woodlands shall be avoided to the maximum extent possible. Prior to construction, high visibility ESA protective fencing shall be installed at the limits of construction to prevent construction staff or equipment from further encroaching on oak woodlands.

AVM-BIO-53 Individual oak trees shall be avoided to the maximum extent possible. Prior to construction, high visibility ESA protective fencing shall be preferentially installed a minimum of two feet beyond the driplines of native oak trees to be protected in place.

AVM-BIO-54 Demolition and asphalt grinding of the existing road shall be completed from within the footprint of the existing roadbed to avoid additional impacts on oak woodlands adjacent to the existing roadbed. This restriction excludes bridge demolition and areas within grading limits.

AVM-BIO-55 Temporary disturbances on the Mixed Oak Forest community shall be re-vegetated with locally native species, as feasible.

Although the project shall have impacts on the Mixed Oak Forest community, the County has determined that mitigation is not warranted based on the project analysis provided in the NES; therefore, no mitigation is proposed.

5. Cultural Resources

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Project:					
a.	Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	☐	☒
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☐	☒	☐
c.	Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

The following discussion incorporates the results of the Draft Historic Property Survey Report and Archaeological Survey Report (October 2021) that was prepared for this project (Paleowest, 2021).

Regulatory Setting

State Regulations

California Code of Regulations Section 15064.5 (California Natural Resources Agency, 2021)

a) For purposes of this section, the term "historical resources" includes the following:

1. A resource listed in or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (CRHR) (PRC § 5024.1, Title 14 California Code of Regulations (CCR), Section 4850 et seq.).
2. A resource included in a local register of historical resources, as defined in section 5020.1(k) of the PRC or identified as significant in an historical resource survey meeting the requirements section 5024.1(g) of the PRC, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
3. Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource is considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the CRHR (PRC § 5024.1, Title 14 CCR, Section 4852) including the following:

    I. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
    II. Is associated with the lives of persons important in our past;
    III. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
    IV. Has yielded, or may be likely to yield, information important in prehistory or history.

4. The fact that a resource is not listed in, or determined to be eligible for listing in the CRHR, not

included in a local register of historical resources (pursuant to section 5020.1(k) of the PRC), or identified in an historical resources survey (meeting the criteria in Section 5024.1(g) of the PRC) does not preclude a lead agency from determining that the resource may be an historical resource as defined in PRC Sections 5020.1(j) or 5024.1.

b) A project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.

1. Substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.
2. The significance of a historical resource is materially impaired when a project

   I. 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 CRHR; or
   II. 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 section 5020.1(k) of the PRC or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the PRC, 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
   III. 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.

3. Generally, a project that follows the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings* shall be considered as mitigated to a level of less than a significant impact on the historical resource.
4. A lead agency shall identify potentially feasible measures to mitigate significant adverse changes in the significance of an historical resource. The lead agency shall ensure that any adopted measures to mitigate or avoid significant adverse changes are fully enforceable through permit conditions, agreements, or other measures.
5. When a project will affect state-owned historical resources, as described in PRC Section 5024, and the lead agency is a state agency, the lead agency shall consult with the State Historic Preservation Officer as provided in PRC Section 5024.5. Consultation should be coordinated in a timely fashion with the preparation of environmental documents.

c) CEQA applies to effects on archaeological sites.

1. When a project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource, as defined in subdivision (a).
2. If a lead agency determines that the archaeological site is an historical resource, it shall refer to the provisions of Section 21084.1 of the PRC, and this section, Section 15126.4 of the Guidelines, and the limits contained in Section 21083.2 of the PRC do not apply.
3. If an archaeological site does not meet the criteria defined in subdivision (a) but does meet the

definition of a unique archeological resource in Section 21083.2 of the PRC the site shall be treated in accordance with the provisions of section 21083.2. The time and cost limitations described in PRC Section 21083.2 (c–f) do not apply to surveys and site evaluation activities intended to determine whether the project location contains unique archaeological resources.

4. If an archaeological resource is neither a unique archaeological nor an historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment. It shall be sufficient that both the resource and the effect on it are noted in the IS or Environmental Impact Report, if one is prepared to address impacts on other resources, but they need not be considered further in the CEQA process.

d) When an IS identifies the existence of, or the probable likelihood, of Native American human remains within the project, a lead agency shall work with the appropriate Native Americans as identified by the Native American Heritage Commission (NAHC) as provided in PRC Section 5097.98. The applicant may develop an agreement for treating or disposing of, with appropriate dignity, the human remains, and any items associated with Native American burials with the appropriate Native Americans as identified by the NAHC. Action implementing such an agreement is exempt from:

1. The general prohibition on disinterring, disturbing, or removing human remains from any location other than a dedicated cemetery (Health and Safety Code Section 7050.5).
2. The requirements of CEQA.

e) In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken:

A. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:

I. The coroner of the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required, and

II. If the coroner determines the remains to be Native American:
   - The coroner shall contact the NAHC within 24 hours.
   - The NAHC shall identify the person or persons it believes to be the most likely descended from the deceased Native American.
   - The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98, or

B. Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.

I. The NAHC is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission.

II. The descendant identified fails to make a recommendation; or

III. The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the NAHC fails to provide measures acceptable to the

landowner.

IV. As part of the objectives, criteria, and procedures required by Section 21082 of the PRC, a lead agency should make provisions for historical or unique archaeological resources accidentally discovered during construction. These provisions should include an immediate evaluation of the find by a qualified archaeologist. If the find is determined to be an historical or unique archaeological resource, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or appropriate mitigation should be available. Work could continue on other parts of the building site while historical or unique archaeological resource mitigation takes place.

Local Regulations

Napa County General Plan

Cultural resources are protected by the National Historic Preservation Act (NHPA), CEQA, and the California PRC. The General Plan also contains goals and policies to protect the County's archaeological and historical resources.

- **Goal CC-4**: Identify and preserve Napa County's irreplaceable cultural and historic resources for present and future generations to appreciate and enjoy.
    - **Policy CC-23**: The County supports continued research into and documentation of the county's history and prehistory and shall protect significant cultural resources from inadvertent damage during grading, excavation, and construction activities.
        - **Action Item CC-23.1**: In areas identified in the Baseline Data Report as having a significant potential for containing significant archaeological resources, require completion of an archival study and, if warranted by the archival study, a detailed on-site survey or other work as part of the environmental review process for discretionary projects.
        - **Action Item CC-23.2**: Impose the following conditions on all discretionary projects in areas which do not have a significant potential for containing archaeological or paleontological resources:
            - "The Planning Department shall be notified immediately if any prehistoric, archaeologic, or paleontological artifact is uncovered during construction. All construction must stop and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology shall be retained to evaluate the finds and recommend appropriate action."
            - "All construction must stop if any human remains are uncovered, and the County Coroner must be notified according to Section 7050.5 of California's Health and Safety Code. If the remains are determined to be Native American, the procedures outlined in CEQA Section 15064.5 (d) and (e) shall be followed."

Environmental Setting

The project is located within a rural area of the county, with no residential properties visible from the project area. The closest structure to the building is approximately 40 feet southwest of the project area.

The Area of Potential Effects (APE) is defined under Section 106 of the NHPA (36 CFR Part 800), as the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the

character or use of historic properties, if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.

The APE for the project was delineated to take into account the horizontal and vertical extent of all areas subject to ground disturbance which includes the excavation for new bridge abutments, grading along the approach to the bridge, excavation for short seat cantilever abutments on two rows of cast-in-drilled-hole (CIDH) piles, and excavation of stormwater bioretention basins. The APE totals 5.34 acres. The depths of project ground disturbance (i.e., the "vertical APE") are 7 feet for the bridge abutments, 6-8 feet for the bioretention basins, the CIDH piles will be 2 feet in diameter and excavated to a depth of 27 feet. The project area is zoned AW and designated as "Agriculture, Watershed, and Open Space" in the 2008-2030 Napa County Land Use Plan (Napa County, 2015; Napa County, 2016).

Cultural Resources

Records Search

A record search of the APE and a surrounding one-mile radius was conducted on March 25, 2019, at the Northwest Information Center (NWIC) at Sonoma State University, in Rohnert Park, California. The record search, NWIC File No: 18-1820, included a review of the State of California Office of Historic Preservation Historic Properties Directory with summary information from the National Register of Historic Places (NRHP), CRHR, California Inventory of Historic Resources (1976), California Points of Historical Interest listing (May 1992 and updates), California Historical Landmarks (2012), Handbook of North American Indians, Vol. 8, California (1978), and the Archaeological Determination of Eligibility (April 5, 2012).The records at the search did not identify any previously recorded resources within the APE. Additionally, no cultural resources were recorded within the one-mile search buffer. The bridge is included in the Caltrans Historic Bridge Inventory of local bridges as a Category 5 bridge, which means that it is not eligible for listing under the NRHP (Paleowest, 2021).

A map review of the APE identified a historic-age schoolhouse with a county assessor-built date of 1932 (APN 027-530-003-000). However, during the latter half of the 20th century, the property owners converted the schoolhouse building to a residence which resulted in significant alterations as described in a 2001 Napa Valley Register article and depicted on aerial maps. The resource is exempt from further evaluation under the Section 106 PA, Attachment 4, Property Type 3: Buildings, structures, objects, districts, and sites so altered as to appear less than 30 years old.

Four previous investigations have taken place within a 1-mile search radius of the APE. The records search did not identify any previously recorded resources within the APE. Additionally, no cultural resources were recorded within the 1-mile search buffer. No previous cultural resource studies have been conducted within or immediately adjacent to the project APE. A pedestrian survey of the APE did not identify archaeological cultural deposits. In addition, the records search did not identify any previously recorded archaeological resources within the APE. Additionally, no sites were recorded within the one-mile buffer.

Native American Consultation

Consultation with the NAHC in Sacramento was conducted by submitting an electronic request form through the NAHC website on March 19, 2019. PaleoWest received a response letter from Katy Sanchez of the NAHC dated April 15, 2019 providing a list of six Native American tribal representatives with traditional lands or cultural places within the county: Charlie Wright (Cortina Rancheria - Kletsel Dehe Band of Wintun Indians), Gene Buvelot (Federated Indians of Graton Rancheria), Greg Sarris (Federated

Indians of Graton Rancheria), Jose Simon III (Middletown Rancheria), Scott Gabaldon, Mishewal-Wappo Tribe of Alexander Valley, and Anthony Roberts (Yocha Dehe Wintun Nation).

On April 23, 2019, PaleoWest staff sent a certified letter to all the Native American contacts describing the undertaking, providing a location map, and requesting any information and/or concerns regarding the undertaking or undertaking area; subsequent telephone calls were also made to contacts to solicit information about cultural resources or sacred sites in or near the project area. Consultation with the NAHC and with interested Native American individuals and groups provided by the NAHC resulted in no additional information about specific cultural resources or sacred sites within the APE. One individual recommended monitoring of the APE during ground disturbing activities (Paleowest, 2021).

Prehistory

The prehistoric context of the APE includes three broad periods defined as (1) the Paleoindian period; (2) the 3-staged Archaic Period which includes the Lower Archaic, the Middle Archaic, and the Upper Archaic; and (3) the Emergent Period.

- The Paleoindian Period, 10,000-6,000 B.C., began when the first people entered California. Typically, it is thought that these people subsisted on large game and minimally processed plant foods and had few, if any, trade networks. Current research indicates that there may have been more plant processing, trade, and sedentism than originally thought.
- The Lower Archaic, 6,000-3,000 B.C., is typically characterized by abundant milling stones, dependence on plant processing instead of hunting, and the lack of extensive trade networks. During the Middle Archaic, 3,000-500 B.C., subsistence patterns began to diversify with the developing acorn intensification, and the rising importance of hunting. Regional trade networks became well established allowing for goods like obsidian and Kuksu ceremonial practices to travel more widely. The Middle Archaic, period also saw status and wealth distinctions as well as increased social complexity. This increase in social complexity carried forward into the Upper Archaic (500 B.C.-A.D. 1000).
- During the Emergent Period, A.D. 1,000-1,800, many of the social complexities of the Upper Archaic continued to flourish. The Lower Emergent was characterized by well-established territorial boundaries and trade networks. The Upper Emergent solidified a monetary system based on the clamshell disk bead.

Native American occupation in the Upper Napa Valley began around the Middle Archaic and continued into the Upper Emergent. CA-NAP-131, a Middle Archaic site located near St. Helena, yielded numerous artifacts such as concave-base projectile points, milling slabs, and hand stones. Typical Emergent Period sites in St. Helena and the surrounding area have produced sites with Rattlesnake Series and Stockton Series projectile points and the population boomed as shown by high site densities and the large-scale village sites.

Discussion of Checklist Responses

a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?

No Impact. The potential for the project to impact historic properties resources is directly related to the likelihood that such resources are present in the project area, and whether they would be encountered during project construction. No prehistoric resources, National Register of Historic Places, or other local, state, or federally listed or recognized properties have been identified in the APE or within a 1-mile radius

around the project area. In addition, no cultural resources or sacred sites were identified in the project vicinity. Therefore, there would be no impact.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

Less than Significant Impact. As discussed above in response (a), there are no known cultural or archaeological resources in the project vicinity. The project area includes a bridge and roadway, therefore there has been previous ground disturbance within the project area. Additionally, project construction would result in a relatively small amount of new horizontal ground disturbance and there would be a small potential to encounter previously unidentified archaeological deposits during construction of the project. The potential for the project to adversely affect unknown potentially intact buried archeological deposits that might be eligible for National Register of Historic Places (NRHP) listing is low. However, the project is not anticipated to cause a substantially adverse change in significance to any archaeological resource, therefore the impact would be less than significant. If previously unidentified resources are uncovered, avoidance and minimization measure **AVM-CUL-1** would be implemented as part of the project.

c. Would the project disturb any human remains, including those interred outside of formal cemeteries?

Less than Significant Impact. The project area is in a rural portion of the county and is not near or within a formal cemetery; additionally, the land within and surrounding the project area has been previously disturbed. However, construction of the project would include ground-disturbing activities that could unearth previously undiscovered human remains interred outside of a formal cemetery, should they be present in the project area. Per avoidance and minimization measure **AVM-CUL-2**, if any human remains are discovered, all construction activities would cease, and the Napa County Coroner would be contacted in accordance with 14 CCR Section 15064.5(e). If the coroner determines that the human remains are of Native American origin, the NAHC would be notified to determine the Most Likely Descendent (MLD) for the area. The MLD would make recommendations for the arrangements for the human remains per PRC Section 5097.98. Project impacts on human remains would be less than significant.

Avoidance, Minimization, and/or Mitigation Measures

To avoid and/or minimize impacts on cultural resources, the following avoidance and minimization measures shall be implemented:

AVM-CUL-1: If previously unidentified cultural materials are encountered or unearthed during construction, work would be halted in that area until a qualified archaeologist can assess the nature and significance of the find. Additional surveys would be required if the project limits change to include areas not previously surveyed.

AVM-CUL-2: In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, steps would be taken in compliance with the CCR Section 15064.5. All construction activities would cease, and the County Coroner would be contacted if any human remains are discovered, in accordance with 14 CCR Section 15064.5(e). If the coroner determines that the human remains are of Native American origin, the NAHC would be notified to determine the MLD for the area. The MLD would make recommendations for the arrangements for the human remains per PRC Section 5097.98.

6. Energy

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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?	☐	☐	☐	☒

Regulatory Setting

State Regulations

Executive Order S-01-07 (January 18, 2007)

This order sets forth the low carbon fuel standard (LCFS) for California. Under this EO, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by the year 2020. CARB re-adopted the LCFS regulation in September 2015, and the changes went into effect on January 1, 2016. The program establishes a strong framework to promote the low-carbon fuel adoption necessary to achieve the Governor's 2030 and 2050 GHG reduction goals.

Senate Bill 375, Chapter 728, 2008, Sustainable Communities and Climate Protection

This bill requires ARB to set regional emissions reduction targets for passenger vehicles. The Metropolitan Planning Organization (MPO) for each region must then develop a Sustainable Communities Strategy (SCS) that integrates transportation, land use, and housing policies to plan how it will achieve the emissions target for its region.

Energy Efficiency Strategic Plan

The California Public Utilities Commission (CPUC) adopted an Energy Efficiency Strategic Plan in September of 2008 outlining a roadmap to maximum energy savings for California's groups and sectors (California Public Utilities Commission, 2011).

Local Regulations

Napa County General Plan

The General Plan outlines measures to promote energy conservation and efficiency.

- **Goal CON-16:** Promote the economic and environmental health of Napa County by conserving energy, increasing the efficiency of energy use, and producing renewable energy locally.

Environmental Setting

The project area includes existing transportation facilities, Dry Creek Road and Dry Creek Bridge The project area does not currently require energy resources to operate.

Discussion of Checklist Responses

a. Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less than Significant Impact. During construction, the project would require energy for haul trips, equipment use, and worker commute trips. Equipment and vehicles would primarily be powered by diesel fuel and would likely require minimal electricity. Fuel consumption from construction vehicles and equipment would be temporary and would represent a negligible increase in regional energy consumption. Following construction, energy consumption would be consistent with existing activities in the project area. The project would not add or expand services that could increase energy consumption in the project area. Therefore, impacts would be less than significant.

b. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact. Implementation of the project would not result in increased traffic, growth, or new uses of energy resources. As a result, long-term changes in energy use (i.e., fuel consumption) are anticipated to be negligible. Fuel consumption from construction vehicles and equipment for the project would be temporary and would represent a negligible increase in regional energy consumption. Once operational, the energy requirements for the project would be similar to existing energy usage. The project would not conflict with or obstruct any state or local plans for renewable energy or energy efficiency. Therefore, there would be no impact.

Avoidance, Minimization, and/or Mitigation Measures

None. The project would not require Avoidance, Minimization, and/or Mitigation Measures for Energy.

7. Geology and Soils

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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 an on-site 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 wastewater disposal systems in areas 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?	☐	☐	☒	☐

Regulatory Setting

State Regulations

Alquist-Priolo Earthquake Fault Zone

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy**.** The main purpose of the Alquist-Priolo Earthquake Fault Zoning Act is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. Through the facilitation of seismic retrofitting to strengthen buildings, including historical buildings, against ground shaking, policies and criteria are also intended to provide citizens with increased safety and to minimize the loss of life during and immediately following earthquakes.

Seismic Hazard Mapping Act

The Seismic Hazards Mapping Act was passed in 1990 to address non-surface fault rupture earthquake hazards, including liquefaction and seismically induced landslides. The purpose of Seismic Hazards Mapping Act is to reduce threats to public health and safety and to minimize property damage caused by earthquakes, strong ground shaking, liquefaction, landslides, or other hazards caused by earthquakes. This act requires the State Geologist to delineate various seismic hazard zones, and cities, counties, and

other local permitting agencies to regulate certain development projects within these zones. Before a development permit is granted for a site within a seismic hazard zone, a geotechnical investigation must be conducted, and appropriate mitigation measures need to be incorporated into the project's design.

California Building Standards Code

The purpose of the California Building Standards Code is to regulate and control the design, construction, quality of materials, use occupancy, location, and maintenance of all building and structures within its jurisdiction. Title 24 serves as the basis for design and construction of buildings in California. The provisions of the California Building Standards Code apply to the construction, alteration, movement, replacement, and demolition of every building or structure, or any appurtenances connected or attached to such buildings or structures throughout California.

California Geological Survey

The California Geological Survey (CGS) was created in 1860 and is dedicated to fulfilling its mission to provide scientific products and services about the state's geology, seismology, and mineral resources that affect the health, safety, and business interests of the people of California. Seismic and Geotechnical Hazard Zones include active and potentially active faults identified by the CGS (formerly the Division of Mines and Geology) under the provisions of the Alquist-Priolo Earthquake Fault Zones Act (California PRC, Division 2, Chapter 7.5). Faults that are also considered active, based on published and unpublished information, as well as seismically induced liquefaction and landslide areas are also identified in the Seismic and Geotechnical Hazard Zones Policy Map.

California Administrative Code, Section 4307

In California, paleontological resources are afforded protection by CEQA, California Administrative Code, Title 14, Section 4307 et seq., and PRC Section 5097.5. CEQA requires that public agencies not approve a project as proposed if there is a feasible alternative or reasonable mitigation measures available that would substantially lessen the significant environmental effects of the project (Chapter 1, Section 21002). PRC 5097.5 protects vertebrate fossil localities situated on public land, including those localities that have produced fossilized footprints or any other paleontological feature. Typical California requirements for paleontological investigations and mitigation are outlined in the Caltrans (2011) Standard Environmental Reference, Volume 1, Chapter 8—Paleontology.

Local Regulations

Napa County General Plan

The General Plan's Conservation Element outline the following goals and policies regarding geology and soils:

- **Policy CON-6:** The County shall impose conditions on discretionary projects which limit development in environmentally sensitive areas such as those adjacent to rivers or streamside areas and physically hazardous areas such as floodplains, steep slopes, high fire risk areas and geologically hazardous areas.
- **Policy CON-48:** Proposed developments shall implement project-specific sediment and erosion control measures (e.g., erosion control plans and/or stormwater pollution prevention plans) that maintain pre-development sediment erosion conditions or at minimum comply with state water quality pollution control (i.e., Basin Plan) requirements and are protective of the County's sensitive domestic supply watersheds. Technical reports and/or erosion control plans that recommend site-specific erosion control measures shall meet the requirements of the County

Code and provide detailed information regarding site specific geologic, soil, and hydrologic conditions and how the proposed measure will function.

Environmental Setting

Regional Geology

California is divided into 11 geomorphic provinces, which are naturally defined geologic regions that display a distinct landscape or landform. The project area is in the northern portion of the Coast Ranges Geomorphic Province, which is a series of low mountain ranges and northwest-trending valleys that run nearly parallel to the San Andreas Fault (California Geological Survey, 2002). The project area is underlain by Franciscan Complex rock, which is comprised of Cretaceous and Jurassic sandstone with smaller amounts of shale, chert, limestone, and conglomerate (California Department of Conservation, 2010).

Soil Characteristics

The United States Department of Agriculture Web Soil Survey indicates the project area is primarily underlain by Lodo-Maymen-Felton association (30 to 75 percent slopes) based on survey data for the county (United States Department of Agriculture, 2018). An association is a group of soils associated in a characteristic repeating pattern, defined and delineated as a single map unit in the Web Soil Survey. Lodo, Maymen, and Felton soils were formed from the weathering of sandstone and shale.

Lodo-Felton-Maymen association soils are well drained with a water table depth of more than 80 inches and have a high runoff class. Lodo soil profile consists of loam from zero to seven inches and from seven to 17 inches is unweathered bedrock. Maymen soil has a similar profile gravelly loam from zero to 12 inches and unweathered bedrock from 12 to 22 inches. At zero to 10 inches Felton soil profile consists of gravelly loam, 10 to 33 inches is clay loam, and 33 to 59 inches is unweathered bedrock.

Soil Erosion Potential

The composition, moisture, and compaction of soil are all major factors in determining soil erosion potential. Sediments containing more clay tend to be more resistant to erosion than those with sand or silt, as clay helps to bind soil particles together. In addition, soils with high levels of organic materials are often more resistant to erosion because the organic materials create stronger, more stable soil structure (United States Department of Agriculture, Soil Conservation Service, 1990).

The soil erodibility factor K indicates the erodibility of whole soil. The estimates of the K factor are based primarily on percentage of silt, sand, and organic matter, and on soil structure and saturated hydraulic conductivity. In the project area the K factor is 0.24 (United States Department of Agriculture, 2018). A K factor between 0.25 and 0.4 indicates the soils have a moderate potential for erosion because the soils are medium textures, and therefore have a moderate susceptibility to detachment and produce moderate runoff (Michigan State University, 2002).

Lodo and Maymen soils belong to Hydrologic Soil Group D, soils in this group typically have greater than 40 percent clay and less than 50 percent sand. This soil group has the highest runoff potential and very low infiltration rates. Felton soils belong to Hydrologic Soil Group C, soils in this group typically have between 20 to 40 percent clay and less than 50 percent sand. They also have loam, silt loam, sandy clay loam, clay loam, and silty clay loam texture. Soils in this group have moderately high runoff potential, with low infiltration rates (United States Department of Agriculture, 2007).

Nearby Faults and Seismicity

According to the Association of Bay Area Governments (ABAG), the most likely faults to produce strong ground shaking in the county include the Northern Hayward/Rodgers Creek in the west, the Maacama in

the northwest, the Hunting Creek-Berryessa in the north, the Green Valley in the southeast, and West Napa in the south central (ABAG, 2013). The Concord Green Valley and the West Napa Fault are the only two major faults that pass-through county boundaries (ABAG, 2013).

Discussion of Checklist Responses

a. Would the project 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?

No Impact. The project is not within an Alquist-Priolo Earthquake Zone and there are no active faults within the vicinity of the project area. As such, the project would not expose people or structures to risk of injury or death from rupture of an active fault; therefore, there would be no impact.

ii. Strong Seismic Groundshaking?

No impact. According to the State Seismic Commission maps showing the earthquake shaking potential for California, there is a medium intensity of ground shaking and damage in the project area from anticipated future earthquakes. The county has historically experienced earthquakes of sufficient magnitude to damage structures and bridges that did not meet current seismic safety standards. However, the project would meet current seismic standards, and would not increase exposure to existing hazards in the project area. In addition, construction of the project would not increase the chances of seismic groundshaking. Therefore, there would be no impact.

iii. Seismic-related Ground Failure, including landslides?

No Impact. Soil liquefaction occurs when a saturated or partially saturated soil substantially loses strength and stiffness in response to an applied stress, usually earthquake shaking or other sudden change in stress condition, causing it to behave like a liquid. Other types of ground failure resulting from seismic activities include collapsible soils, subsidence (the gradual caving in or sinking of an area of land), landslides, and lateral spreading (landslides that commonly form on gentle slopes and that have rapid fluid-like flow movement).

A liquefaction zone is an area that has a historical occurrence of liquefaction, or local geological, geotechnical, and ground water conditions which indicate a potential for permanent ground displacements. According to the Department of Conservation's CGS, the project area is not located in a liquefaction zone (California Department of Conservation, 2019), and the project would not expose people or structures to new potential impacts involving seismic-related ground failure. Therefore, there would be no impact.

iv. Landslides, Including Seismically Induced Landslides?

No Impact. According to the Department of Conservation's CGS, the project area is not located in an area susceptible to landslides (California Department of Conservation, 2019). The project would enhance safety of the bridge through design. In addition, the project would not include pile driving which would increase groundbourne vibration and potentially cause a landslide. Therefore, there would be no impact.

b. Would the project result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. The project may result in minor soil erosion due to excavation, vegetation removal, and other construction activities. However, standard BMPs would be implemented to minimize

the potential for soil erosion during construction. Therefore, impacts would be less than significant.

c. Would the project 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?

No Impact. As discussed above in response (a.iii), the project area is not located within or near a liquefaction or landslide zone. Therefore, there would be no impact.

d. Would the project be located on expansive soil, creating substantial direct or indirect risks to life or property?

Less than Significant Impact. Expansive soil is a soil that is prone to large volume changes (swelling and shrinking) that are directly related to changes in water content; with higher moisture levels, the soils swell, and with lower moisture levels, the soils shrink. According to the U.S. Geological Survey's Swelling clays map of the conterminous United States, the project area is located in an area that has a high swelling potential because part of the unit (generally less than 50 percent) consists of clay (United States Geological Survey, 1989). However, Standard BMPs would be implemented to minimize the potential for soil erosion during construction. Therefore, impacts would be less than significant.

e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. The project would not include any uses, features, or facilities that would generate wastewater; it does not propose to construct any septic or wastewater disposal systems. Therefore, there would be no impact.

f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant Impact. Paleontological resources include fossils, which are the preserved remains or traces of animals, plants, and other organisms from prehistoric time (i.e., the period before written records). Fossils and traces of fossils are preserved in sedimentary rock units (formed by the deposition of material at the Earth's surface); and are more likely to be preserved subsurface, where they have not been damaged or destroyed by previous ground disturbance or natural causes, such as erosion by wind or water. The project area is in a rural area where soils have been previously disturbed, and there are no unique geologic features in the project area. Soil disturbance resulting from the project would include excavation for the bridge abutments of depth up to seven feet below the existing road surface, grading, and roadway construction. The project area has been previously disturbed; therefore, it is unlikely a unique paleontological or geologic feature would be destroyed by implementation of the project. Therefore, the project would result in a less than significant impact.

Avoidance, Minimization, and/or Mitigation Measures

None. The project would not require Avoidance, Minimization, and/or Mitigation Measures for Geology and Soils.

8. Greenhouse Gas Emissions

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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?	☐	☐	☐	☒

Regulatory Setting

There are numerous state plans, policies, regulations, and laws related to GHGs and global climate change that 1) establish overall state policies and GHG reduction targets; 2) require state or local actions that result in direct or indirect GHG emission reductions for the project; 3) require CEQA analysis of GHG emissions; and 4) provide generally accepted guidance in performing GHG analyses. The major components of California's climate change policy are reviewed below.

State Regulations

Assembly Bill 1493

AB 1493 (Pavley) of 2002 (Health and Safety Code Sections 42823 and 43018.5) requires the ARB to develop and adopt the nation's first GHG emission standards for automobiles. These standards are also known as Pavley I. The California Legislature declared in AB 1493 that global warming is a matter of increasing concern for public health and the environment. It cites several risks that California faces from climate change, including a reduction in the state's water supply, an increase in air pollution caused by higher temperatures, harm to agriculture, an increase in wildfires, damage to the coastline, and economic losses caused by higher food, water, energy, and insurance prices. The bill also states that technological solutions to reduce GHG emissions would stimulate California's economy and provide jobs. In 2004, the State of California submitted a request for a waiver from federal clean air regulations, as the State is authorized to do under the FCAA, to allow the State to require reduced tailpipe emissions of Carbon Dioxide (CO_2) In late 2007, the US EPA denied California's waiver request and declined to promulgate adequate federal regulations limiting GHG emissions. In early 2008, the State brought suit against the US EPA related to this denial.

In January 2009, President Obama instructed the US EPA to reconsider the Bush Administration's denial of California's and 13 other states' requests to implement global warming pollution standards for cars and trucks. In June 2009, the US EPA granted California's waiver request, enabling the State to enforce its GHG emissions standards for new motor vehicles beginning with the current model year.

Also, in 2009, President Obama announced a national policy aimed at both increasing fuel economy and reducing GHG pollution for all new cars and trucks sold in the US. The new standards would cover model years 2012 to 2016 and would raise passenger vehicle fuel economy to a fleet average of 35.5 miles per gallon by 2016. When the national program takes effect, California has committed to allowing automakers who show compliance with the national program to also be deemed in compliance with state requirements. California is committed to further strengthening these standards beginning in 2017 to obtain a 45 percent GHG reduction from the 2020 model year vehicles.

Executive Order S-3-05 (June 1, 2005)

The goal of this EO is to reduce California's GHG emissions to 1) 2000 levels by 2010; 2) 1990 levels by 2020; and 3) 80 percent below 1990 levels by 2050. In 2006, this goal was further reinforced with the passage of AB 32. The Legislature also intended that that the statewide GHG emissions limit continue in existence and be used to maintain and continue reductions in emissions of GHGs beyond 2020 (Health and Safety Code Section 38551(b)). The law requires CARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions.

Senate Bill (SB) 391 -Chapter 585, 2009 California Transportation Plan

SB 391 bill requires the state's long-range transportation plan to meet California's climate change goals under AB 32.

Executive Order S-6-06

EO S-6-06 (State of California), signed on April 25, 2006, established two primary goals related to the use of biofuels within California, including (1) by 2010, 20 percent of its biofuels need to be produced within California; increasing to 40 percent by 2020 and 75 percent by 2050; and (2) by 2010, 20 percent of the renewable electricity should be generated from biomass resources within the state, maintaining this level through 2020.

Senate Bill 375, Chapter 728, 2008, Sustainable Communities and Climate Protection

SB 375 requires the CARB to set regional emissions reduction targets from passenger vehicles. The MPO for each region must then develop a SCS that integrates transportation, land use, and housing policies to plan for the achievement of the emissions target for their region.

Assembly Bill 32 - California Global Warming Solutions Act of 2006

AB 32, or the California Global Warming Solutions Act of 2006, was passed to establish regulations that reduce GHG emissions in California 1990 levels by 2020, and to monitor and enforce compliance with the program. As part of AB 32, a scoping plan was created to outline the strategies for meeting emissions goals (California Air Resources Board, 2017b).

Senate Bill 97 and Amendments to the State CEQA Guidelines

As directed by Senate Bill SB 97, the California Natural Resources Agency adopted amendments to the State CEQA Guidelines on December 30, 2009, adding a new Section 15064.4, "Determining the Significance of Impacts from GHG Emissions," and a new Section 15126.4(c), "Mitigation Measures Related to GHG Emissions." The amendments became effective on March 18, 2010.

CARB GHG Emissions Data and Scoping Plan

AB 32 requires CARB to develop a scoping plan to lower the state's GHG emissions to meet the 2020 limit. The AB 32 Climate Change Scoping Plan was approved at the December 2008 CARB meeting, and the first update to the AB 32 Climate Change Scoping Plan was approved in May 2014 (CARB, 2014). Key elements of the scoping plan include expanding and strengthening existing energy efficiency programs and building and appliance standards; achieving a statewide renewable energy mix of 33 percent; developing a California cap and trade program linked with other similar programs; establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets; implementing existing laws and standards, such as California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and issuing targeted fees to fund the state's long-term commitment to AB 32 administration.

Climate Change Scoping Plan

In October 2008, CARB published its Climate Change Scoping Plan, which is the state's plan to achieve GHG reductions in California required by AB 32. The scoping plan contains the main strategies California will implement to achieve reduction of 169 million metric tons of CO_2 equivalent (CO_2e), or approximately 30 percent from the state's projected 2020 emissions level of 596 Metric tons of CO_2 equivalent ($MMTCO_2e$) under a business-as-usual scenario (this is a reduction of 42 $MMTCO_2e$, or almost 10 percent, from 2002–2004 average emissions). The Scoping Plan also includes ARB-recommended GHG reductions for each emissions sector of the state's GHG inventory. The largest proposed GHG reduction recommendations are from improving emissions standards for light-duty vehicles (estimated reductions of 31.7 $MMTCO_2e$), implementation of the Low Carbon Fuel Standard (15.0 $MMTCO_2e$) program, energy efficiency measures in buildings and appliances and the widespread development of combined heat and power systems (26.3 $MMTCO_2e$), and a renewable portfolio standard for electricity production (21.3 $MMTCO_2e$). The scoping plan identifies the local equivalent of AB 32 targets as a 15 percent reduction below baseline GHG emissions level, with baseline interpreted as GHG emissions levels between 2003 and 2008.

A key component of the scoping plan is the Renewable Portfolio Standard, which is intended to increase the percentage of renewables in California's electricity mix to 33 percent by year 2020, resulting in a reduction of 21.3 $MMTCO_2e$. Sources of renewable energy include, but are not limited to, biomass, wind, solar, geothermal, hydroelectric, and anaerobic digestion. Increasing the use of renewables will decrease California's reliance on fossil fuels, thus reducing GHG emissions.

The scoping plan states that land use planning and urban growth decisions will play important roles in the state's GHG reductions because local governments have primary authority to plan, zone, approve, and permit how land is developed to accommodate population growth and the changing needs of their jurisdictions. ARB further acknowledges that decisions on how land is used will have large impacts on the GHG emissions that will result from the transportation, housing, industry, forestry, water, agriculture, electricity, and natural gas emissions sectors. With regard to land use planning, the scoping plan expects approximately 5.0 $MMTCO_2e$ will be achieved associated with implementation of SB 375, which is discussed further below.

The initial scoping plan was first approved by ARB on December 11, 2008 and is updated every five years. The first update of the scoping plan was approved by the ARB on May 22, 2014, which looked past 2020 to set mid-term goals (2030-2035) on the road to reaching the 2050 goals. ARB is moving forward with a second update to the Scoping Plan to reflect the 2030 target established in SB 32 and EO B-30-15.

California Building Code

The California Building Code (CBC) contains standards that regulate the method of use, properties, performance, or types of materials used in the construction, alteration, improvement, repair, or rehabilitation of a building or other improvement to real property. The CBC is adopted every three years by the Building Standards Commission (BSC). In the interim, the BSC also adopts annual updates to make necessary mid-term corrections. The CBC standards apply statewide; however, a local jurisdiction may amend a CBC standard if it makes a finding that the amendment is reasonably necessary due to local climatic, geological, or topographical conditions.

Green Building Standards

In essence, green buildings standards are indistinguishable from any other building standards. Both are contained in the CBC and regulate the construction of new buildings and improvements. The only practical distinction between the two is that whereas the focus of traditional building standards has been

protecting public health and safety, the focus of green building standards is to improve environmental performance.

AB 32, which mandates the reduction in GHG emissions in California to 1990 levels by 2020, increased the urgency around the adoption of green building standards. In its scoping plan for the implementation of AB 32, ARB identified energy use as the second largest contributor to California's GHG emissions, constituting roughly 25 percent of all such emissions. In recommending a green building strategy as one element of the scoping plan, ARB estimated that green building standards would reduce GHG emissions by approximately 26 $MMTCO_2e$ by 2020.

The green buildings standards were most recently updated in 2013. The 2013 building energy efficiency standards are 25 percent more efficient than previous standards for residential construction and 30 percent more efficient for non-residential construction.

Local Regulations

Napa County General Plan

The 2008 General Plan includes policies aimed at reducing local contributions to global climate change. These policies include supporting efforts to reduce GHG emissions, participating in programs related to global climate change, promoting sustainable practices and green technology in development, promoting the research and development of renewable energy technology, and providing incentives for energy-efficient forms of transportation, among others.

- **Goal CON-15:** Reduce emissions of local GHGs that contribute to climate change.
    - **Policy CON-65**: The County shall support efforts to reduce and offset GHG emissions and strive to maintain and enhance the County's current level of carbon sequestration functions through the following measures:
        - Consider GHG emissions in the review of discretionary projects. Consideration may include an inventory of GHG emissions produced by the traffic expected to be generated by the project, any changes in carbon sequestration capacities caused by the project, and anticipated fuel needs generated by building heating, cooling, lighting systems, manufacturing, or commercial activities on the premises. Projects shall consider methods to reduce GHG emissions and incorporate permanent and verifiable emission offsets.
    - **Policy CON-66**: The County shall promote the implementation of sustainable practices and green technology in agriculture, commercial, industrial, and residential development through the following actions:
        - Project Construction
            - 1) Utilize recycled, low-carbon, and otherwise climate-friendly building materials such as salvaged and recycled content materials for buildings, hard surfaces, and landscaping materials.
            - 2) Minimize, reuse, and recycle construction-related waste.
            - 3) Utilize alternative fuels in construction equipment and require construction equipment to utilize the best available technology to reduce emissions.

Environmental Setting

GHG are gases that trap heat in the atmosphere. The transportation sector (i.e., the movement of people and goods by cars, trucks, trains, ships, airplanes, and other vehicles) accounts for 41 percent of total GHG

emissions in California (California Air Resources Board, 2019). The majority of GHG from transportation are carbon CO_2 emissions resulting from the combustion of petroleum-based products, like gasoline, in internal combustion engines (U.S. Environmental Protection Agency, 2017). The largest sources of transportation-related GHG emissions include passenger cars and light-duty trucks, which account for over half of the emissions from the sector. The sources of GHG emissions within the project area are limited to the internal combustion engine vehicles that use the bridge.

Discussion of Checklist Responses

a. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than Significant Impact. During construction, the use of construction equipment, delivery of construction materials and waste, and worker commutes would contribute to the generation of GHGs. Because construction would be temporary and short term, the contribution of construction greenhouse gas emissions to climate change would be minimal. Operation of the project is not expected to increase GHG emissions because it would maintain the same number of through lanes (one in each direction) and would not increase capacity or result in additional cars on the roadway. As such, operation of the project would not result in significant impacts related to GHG emissions. Therefore, impacts would be less than significant.

b. Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

No Impact. As discussed above in response (a), operation of the project is not expected to increase GHG emissions, and construction of the project would contribute to minimal increases in GHG emissions. Therefore, the project is not expected to conflict with any local or state targets for GHG emissions reduction, and there would be no impact.

Avoidance, Minimization, and/or Mitigation Measures

None. The project would not require Avoidance, Minimization, and/or Mitigation Measures for Greenhouse Gas Emissions.

9. Hazards and Hazardous Materials

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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 that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e.	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?	☐	☐	☒	☐

The following discussion incorporates the results of the Hazardous Materials Memorandum that was prepared for this project (GPA Consulting, 2020).

Regulatory Setting

State Regulations

Hazardous Waste and Substances Site List - Site Cleanup (Cortese List)

The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the state, local agencies and developers to comply with CEQA requirements in providing information about the location of hazardous materials release sites. Government Code section 65962.5 requires the California EPA to develop at least annually an updated Cortese List. California Department of Toxic Substances Control (DTSC) is responsible for a portion of the information contained in the Cortese List. Other state and local government agencies are required to provide additional hazardous material release information for the Cortese List.

The California Hazardous Waste Control Law

The Hazardous Waste Control Law (HWCL) is the primary hazardous waste statute in the State of California. The HWCL implements RCRA as a "cradle-to-grave" waste management system in California. The law states that generators have the primary duty to determine whether their wastes are hazardous and to ensure their proper management. The HWCL also establishes criteria for the reuse and recycling of

hazardous wastes. The law exceeds federal requirements by mandating source reduction planning, and a much broader requirement for permitting facilities that treat hazardous waste. It also regulates a number of types of wastes and waste management activities that are not covered by RCRA.

California Code of Regulations

Most state and federal regulations and requirements that apply to generators of hazardous waste are spelled out in the CCR, Title 22, Division 4.5. Title 22 contains detailed compliance requirements for hazardous waste generators and transporters, and treatment, storage, and disposal facilities. Because California is a fully authorized state according to RCRA, most RCRA regulations (those contained in 40 CFR 260, et seq.) have been duplicated and integrated into Title 22. However, because the DTSC regulates hazardous waste more stringently than the EPA, Title 22 contains fewer exemptions and exclusions than 40 CFR 260. Title 22 also regulates a wider range of waste types and waste management activities than RCRA regulations in 40 CFR 260. To make regulatory requirements more accessible and easier to follow, California compiled the hazardous materials, waste, and toxics-related regulations contained in CCR, Titles 3, 8, 13, 17, 19, 22, 23, 24, and 27 into one consolidated CCR Title 26 "Toxics." However, California hazardous waste regulations are still commonly referred to as Title 22.

Local Regulations

Napa County General Plan

The General Plan's Circulation, Conservation and Safety Elements outline the following goals and policies regarding Hazardous Waste and Materials:

- **Policy CIR-8**: Roadway, culvert, and bridge improvements and repairs shall be designed and constructed to minimize fine-sediment and other pollutant delivery to waterways, to minimize increases in peak flows and flooding on adjacent properties, and where applicable to allow for fish passage and migration, consistent with all applicable codes and regulations.
- **Policy CON-6:** The County shall impose conditions on discretionary projects which limit development in environmentally sensitive areas such as those adjacent to rivers or streamside areas and physically hazardous areas such as floodplains, steep slopes, high fire risk areas and geologically hazardous areas.
- **Policy SAF-40:** The County will seek to maintain the structural and operational integrity of essential public services during the event of flooding and other natural disaster, including the possible location, when feasible, of new essential public facilities outside of flood hazard zones. All critical public infrastructure intended for emergency use shall be provided with a source of alternate power.

Environmental Setting

Contaminated Sites

The project area is largely undeveloped and rural with several rural residential properties located along Dry Creek Road and Dry Creek Fork Road. The residential structures in the project vicinity are between approximately 250 feet and 600 feet from the existing bridge. The project area is heavily wooded with mixed oak forest, California Bay forest, with some annual Brome grassland. According to the General Plan, the land use surrounding the project area is zoned as Agriculture, Watershed, and Open Space.

Dry Creek Road is classified as a rural minor collector. The current bridge is a single lane bridge with no shoulders that carries 2-way traffic. The current average daily traffic (ADT) amount for Dry Creek Bridge is 774 cars, with a projected ADT of 1,348 cars in 2040.

According to the Department of Toxic Substance Control database, EnviroStor, there are no active hazardous waste sites within the project region. There is roadway striping throughout the project area, including a double-yellow center line along Dry Creek Road. Additionally, according to the SWRCB's GeoTracker, there are no hazardous waste clean-up sites within a half mile radius of the project area (State Water Resources Control Board, 2015)

Airports

There are two public use airports in the county: the Napa County Airport located south of the City of Napa (approximately 16 miles from the project area), and the Angwin-Parrett Field located in Angwin east of St. Helena (approximately 9 miles from the project area).

Discussion of Checklist Responses

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant Impact. Materials stored or disposed of during project construction could present a hazard to construction workers, the public, or the environment. During construction, vehicles and equipment would contain or require the temporary use of potentially hazardous substances, such as fuels, lubricating oils, and hydraulic fluid. Project construction would require the removal of yellow roadway striping paint, which historically contained lead and/or chromium. Yellow roadway striping paint has the potential to contain hazardous levels of these materials. Therefore, the County would characterize the yellow paint that would be removed during construction for hazardous levels of lead and chromium prior to the start of construction activities. The Contractor would follow Caltrans Standard Specification 14-11.12 "Removal of Yellow Traffic Stripe and Pavement Marking with Hazardous Waste Residue", which requires the Contractor to properly manage removed stripe and pavement marking as a hazardous waste and to have and implement a Lead Compliance Plan prepared by a Certified Industrial Hygienist (**AVM-HAZ-1**). Any use of hazardous materials during project construction is inherently required to comply with a variety of regulations that govern the transport, use, and disposal of hazardous materials. With the implementation of avoidance and minimization measure **AVM-HAZ-1** if needed, impacts would continue to be minimized or avoided, and the project would result in less than significant impacts.

b. Would the project 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?

Less than Significant Impact. Dry Creek Road has not been historically subject to significant traffic stoppage, idling, or slow-moving traffic on Dry Creek Road, which would increase the likelihood of hazardous amounts of ADL having accumulated in the project area. Thus, it is not anticipated that the project area would contain hazardous levels of aerially deposited lead in the roadway shoulders.

Soil disturbance resulting from project construction would include excavation for the bridge abutments of a depth up to seven feet, minor regrading of the channel slopes, and roadway reconstruction. It is not anticipated that excess soil would be generated by the excavation activities, and it is not anticipated that soil would be removed from the project area. If upon completion of final design, it is found that soil must be removed from the project area, the County would complete a screening-level soils ADL assessment to determine if soils require further characterization according to the California Department of Toxic Substances Control variance V09HQSCD006. Two samples should be collected at the locations where abutment excavations would occur, at a depth of 0.5 and 1.5 feet.

Construction of the project would require demolition of the existing bridge. Asbestos can be present in construction materials such as bridge pads or shims, or other less obvious materials such as pipe conduits

for utilities. Federal regulations require a Certified Asbestos Consultant (CAC) to make definitive conclusions regarding the presence of asbestos construction building materials (ACBM). The CAC should review as-built drawings (if available) and do a site visit to assess the presence of suspected ACBM. If suspected ACBM is present, the CAC can collect samples for submittal to a lab to be tested for the presence of asbestos in accordance with the appropriate specification and based on the results, prepare a report appropriate for submittal with the notice to the Bay Area Air Quality Management District (BAAQMD). The BAAQMD must be notified via a web-based online Asbestos Notification System no later than 10 days in advance of demolition, regardless of asbestos content. Although, based on current data and examinations of the area, the anticipated impacts are less than significant, **AVM-HAZ-2** would be implemented if lead were discovered during the removal of the existing infrastructure, and **AVM-HAZ-3** would be implemented if asbestos is discovered during the removal. With the implementation of avoidance and minimization measures **AVM-HAZ-2** and **AVM-HAZ-3** if needed, impacts would continue to be minimized or avoided, and the project would continue to result in less than significant impacts.

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. The project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school in the area as no schools are located within 0.25 mile of the project area. The nearest schools, St. Helena High School and Wine Country Day Preschool, are located approximately 10 miles north and six miles east, respectively, from the project area. However, St. Helena High School is located approximately 0.15 miles southwest of State Route 128, a regional connector which could be used to as a route that the project haul traffic would use. However, the use, and removal, of these materials would be subject to appropriate handling and containment measures and is inherently required to comply with a variety of regulations that govern the transport, use, and disposal of hazardous materials. Therefore, the project would not impact any schools.

d. Would the project 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?

No Impact. According to the Department of Toxic Substance Control database, EnviroStor, the project area does not contain any active or inactive hazardous waste or cleanup sites (Department of Toxic Substance Control, 2019). Additionally, according to the State Water Resources Control Board's GeoTracker, there are no hazardous waste clean-up sites within a half mile radius of the project area (State Water Resources Control Board, 2015). Therefore, there would be no impact.

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?

No Impact. The project area is not located within 2 miles of any public or private airport or airstrip. The closest airports are the Angwin-Parrett Field (approximately nine miles from the project area), and Napa County Airport (approximately 16 miles from the project area). Consequently, the project would not conflict with any airport land use plan or operation of nearby airports and would not pose any airport-related safety hazard to people working in the project area. Therefore, there would be no impact.

f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact. Disaster routes are used during times of crisis to save lives, protect property, and minimize impact to the environment. During a disaster, pre-identified disaster routes have priority

for clearing, repairing, and restoration over all over roads. Construction of the project would not require full closure of the roadway. Continuous access for through traffic would be maintained on Dry Creek Road, however, traffic may experience temporary slowdowns or delays during construction. During Stage 1 of construction (approximately five months), the existing bridge on Dry Creek Road would remain open to traffic in both directions while the new bridge and approach roadways are constructed. During Stage 2 (approximately two months), Dry Creek Road would remain open to traffic with temporary roadway sections constructed during Stage 1 to allow one lane of traffic through in each direction. For the remainder stages of construction, Stages 3-4, traffic would shift from the old Dry Creek Road to the new Dry Creek Road and one lane per direction would be maintained. Applicable construction measures would minimize temporary construction impacts by ensuring public safety throughout implementation of temporary roadways and ramps for the project. Therefore, project impacts would be considered less than significant.

g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less than Significant Impact. According to the General Plan's Safety Element, the project is located in an area that is classified as both Moderate and Very High Fire Hazard Severity Zones. However, BMPs including site vegetation maintenance would be implemented during construction to reduce the potential for fire hazards in the project area; construction and operation of the project would not increase the potential for wildland fires or expose people or structures to a significant risk of loss, injury or death involving wildland fires in the area. Therefore, the impacts would be less than significant.

Avoidance, Minimization, and/or Mitigation Measures

To avoid and/or minimize impacts related to hazardous materials, the following avoidance and minimization measures (AVM) shall be implemented:

AVM-HAZ-1: If hazardous levels of lead and chromium are identified in the yellow traffic stripes or pavement marking within the project area, this material would be handled in accordance with Caltrans Standard Specification 14-11.12 "Removal of Yellow Traffic Stripe and Pavement Marking with Hazardous Waste Residue", which requires the Contractor to properly manage removed stripe and pavement marking as a hazardous waste and to have and implement a Lead Compliance Plan prepared by a Certified Industrial Hygienist.

AVM-HAZ-2: If soil must be removed from the project and the results of the screening-level soils ADL assessment identifies hazardous levels of lead in the soil to be exported, the Contractor would complete a Lead Compliance Plan to address and identify and comply with appropriate soil reuse or disposal requirements.

AVM-HAZ-3: If asbestos or ACBM is identified on the bridge, this material would be handled in accordance with Caltrans 2018 Standard Special Provision (SSP) 14-11.16, which requires the preparation and implementation of an Asbestos Compliance Plan to protect worker health and safety, an Asbestos Removal Work Plan for the management of the asbestos materials, and other provisions for protection of workers and air quality.

10. Hydrology and Water Quality

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Project:					
a.	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
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 that 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, rise release of pollutants due to project inundation?	☐	☐	☐	☒
e.	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

The following discussion incorporates the results of the Water Quality Memorandum that was prepared for this project (Avila and Associates, Consulting Engineers, Inc., 2021).

Regulatory Setting

Federal Regulations

Clean Water Act

The USACE regulates the placement of dredged and fill material into the water of the United States (U.S.), including wetlands, under Section 404 of the CWA. The limits of the USACE jurisdiction extend to the ordinary high-water mark. No discharge of dredged or fill material into water of the U.S. is permitted unless authorized under USACE Nationwide Permit or Individual Permit. For all work subject to an USACE Section 404 permit, project proponents must obtain a Water Quality Certification from the applicable RWQCB under CWA Section 401 stating that the project would comply with applicable water quality regulations.

State Regulations

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control 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. The act predates the CWA and regulates discharges to waters of the state. Waters of the state include groundwater and surface waters not considered waters of the U.S. Discharges under the Porter-Cologne Act are permitted by WDR and may be required even when the discharge is already permitted or exempt under the CWA.

California Fish and Game Code Section 1602 Streambed Alteration Agreement

In compliance with California Fish and Game Code Section 1602, the CDFW issues agreements for any alteration of a river, stream, or lake where fish or wildlife resources may be adversely affected. Streams and rivers are defined by the presence of a channel bed, banks, and perennial, intermittent, or ephemeral flow of water. CDFW typically extends the limits of their jurisdictional laterally beyond the channel banks for streams to the outer edges of riparian vegetation. The permit governs activities that modify the physical characteristics of the stream as well as activities that may affect fish and wildlife that use the stream and surrounding habitat.

Local Regulations

Water Quality Control Plan for the San Francisco Bay Basin

The SWRCB determines water rights, sets water pollution control policy, issues water board orders on matters of statewide application, and oversees water quality function throughout the state by approving basin plans, Total Maximum Daily Loads (TMDLs), and National Pollution Discharge Elimination System (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. The San Francisco RWQCB requires permits for any project that may potentially adversely affect a creek or waterway in the region.

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 Water Discharge Requirements), the CWA requires the establishment of TMDLs, which are given allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed.

The San Francisco Bay RWQCB has adopted a Water Quality Control Plan (Basin Plan) to form a basis for water quality regulation in the region. The Basin Plan includes a description of beneficial water uses protected by the RWQCB, as well as water quality objectives and implementation plans for protecting these beneficial uses, including TMDLs. The Basin Plan includes objectives for ocean waters, surface waters, groundwater, as well as specific objectives for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary and the Alameda Creek Watershed.

Napa County General Plan

The General Plan contains the County's goals and desires concerning hydrology and water quality is designed to serve as the basis for development decisions (Napa County, 2008). The following goals and policies from the County's General Plan Conservation Element are applicable to the project:

- **Goal CON-10:** Conserve, enhance, and manage water resources on a sustainable basis to attempt to ensure that sufficient amounts of water will be available for the uses allowed by this General Plan, for the natural environment, and for future generations.
    - **Policy CON-41:** The County will work to protect Napa County's watershed and public and private water reservoirs to provide for the following purposes:
        - Clean drinking water for public health and safety;
        - Municipal uses, including commercial, industrial, and domestic uses;
        - Support of the ecosystem;
        - Agricultural water supply;
        - Recreation and open space; and
        - Scenic beauty.
    - **Policy CON-47:** The County shall comply with applicable Water Quality Control/Basin Plans as amended through the TMDL process to improve water quality, the following may be undertaken:
        - Developing outreach and education programs to inform landowners and managers about improving surface water quality (e.g., rural and private road maintenance, soil and vegetation retention, construction site management, runoff control, etc.) cooperating with other governmental and non-governmental agencies seeking to establish waiver or certification programs.
    - **Policy CON-50:** The County will take appropriate steps to protect surface water quality and quantity, including:
        - Adopt development standards, in conformance with NPDES Phase II requirements, for post-construction storm water control.
        - Address potential soil erosion by maintaining sections of the County Code that require all construction-related activities to have protective measures in place or installed by the grading deadlines established in the Conservation Regulations. In addition, the County shall ensure enforceable fines are levied upon code violators and shall require violators to perform all necessary remediation activities.

Napa County Stormwater Management and Discharge Control Ordinance

The RWQCB administers the NPDES stormwater permitting program under Section 402(p) of the CWA. Under Section 402 of the CWA, a NPDES permit is required for any point source discharge of pollutants into waters of the U.S. and establishes monitoring and reporting requirements. There are two NPDES permits that regulate runoff from construction sites: NPDES Construction General Permit and NPDES Municipal General Permit. Construction activities that involve disturbance of more than one acre require compliance with the statewide NPDES stormwater general permit for construction activities. Construction activity that results in soil disturbances of less than one acre is subject to this permit if there is potential for substantial water quality impairment resulting from the activity as determined by the RWQCB.

The County was issued a Phase II NPDES Municipal General Permit (Municipal General Permit) by the SWRCB in 2003 and renewed in 2013. All incorporated and unincorporated areas within the Napa River watershed are covered under the Municipal General Permit. Under this permit, partners of the Napa Countywide Stormwater Pollution Prevention Plan (NCSPPP) are required to develop, implement, and enforce a program to reduce pollutants from construction sites.

Chapter 16.28 of Napa County Code of Ordinances (County Code) is the Napa County Stormwater Management and Discharge Control Ordinance, which implements conditions set in the Municipal General Permit (Napa County, 2017). Purposes include protecting fish and wildlife habitat, protect and improve water quality, implement use of management practices to reduce the effects of polluted runoff discharges, and to ensure compliance with state and federal law.

Napa Countywide Stormwater Pollution Prevention Plan

NCSPPP is a joint effort by the County, cities of American Canyon, Napa, St. Helena, and Calistoga, and the town of Yountville. The purpose is to prevent stormwater pollution, protect and enhance water quality in creeks and wetlands, preserve beneficial uses of local waterways, and comply with state and federal laws. Provides for coordination and consistency of approaches between the individual participants and documents efforts in an annual report. Also, provides basic guidelines on BMPs for construction projects, including erosion and sediment control BMPs (Napa County, 2018).

Environmental Setting

The project is in unincorporated portion of Napa County, west of Napa Valley, in the hillside. The project area is surrounded by dense trees, vineyards, and private residences. The elevation of the project area is approximately 708 feet above msl.

Hydrology

Surface Waters

Based on classification system for surface water employed by the San Francisco Bay RWQCB, as defined by the United States Geologic Survey (USGS), the project area is in the Napa River Watershed, which covers approximately 133,467 acres; and Dry Creek Subwatershed, which covers approximately 18,471 acres (UC Davis Sustainability Indicators Group, 2018a; UC Davis Sustainability Indicators Group, 2018b).

However, the Napa County Watershed Information and Conservation Council (WICC) uses different parameters than the USGS to define the watersheds within the County and only delineates three watersheds within Napa County: Napa River, Putah Creek, and Suisun Creek. According to the Napa County WICC, the Napa River Watershed is bounded by Mount Saint Helena to the north, Mayacamos Mountains to the west, Howell Mountain, Altas Peak, and Mount George to the east, and the Napa-Sonoma Marsh to the south. The Napa River runs through the center of the watershed, draining numerous tributaries including Dry Creek from the headwaters of Mount Saint Helena to the San Pablo Bay. The 55-mile-long river traverses through forested mountain slopes, vineyards, urban areas, open pasture, grasslands, industrial zones, and marshes (GPA, 2018 and Napa County WICC, 2018b).

According to the San Francisco Bay RWQCB Basin Plan, beneficial uses of Dry Creek are agricultural supply (AGR) municipal and domestic supply (MUN), cold freshwater habitat (COLD), fish migration (MIGR), preservation of rare and endangered species (RARE), fish spawning (SPWN), warm freshwater habitat (WARM), wildlife habitat (WILD), water contact recreation (REC-1), and noncontact water recreation (REC-2) (San Francisco Bay Regional Water Quality Control Board, 2017).

Floodplain

As shown on Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Map Number 06055C0390E, the project area is located in Zone X, which is defined as areas determined to be outside the 0.2 percent annual chance floodplains (Federal Emergency Management Agency, 2008). Therefore, the project area is not located on a FEMA designated floodplain. In addition, the project area is not located within or adjacent to a federal regulatory floodway.

Groundwater

The classification system for groundwater was developed by the California Department of Water Resources (CDWR) and divides groundwater into hydrologic regions, basins, and sub-basins. The project area is within the San Francisco Bay Hydrologic Region (HR), which covers approximately 2.88 million acres and includes San Francisco as well as portions of Marin, Sonoma, Napa, Solano, San Mateo, Santa Clara, Contra Costa, and Alameda counties (California Department of Water Resources, 2003). Within the San Francisco Bay HR, the project area is located outside of the Napa-Sonoma Valley Basin (Basin) and the Napa Valley Subbasin (Subbasin). The Subbasin occupies a northwest trending structural depression in the central Coast Ranges, bounded by the Coast Ranges on the north, east and west and San Pablo Bay on the south (California Department of Water Resources, 2014). In 2014, the Sustainable Groundwater Management Act (SGMA) was passed and provides a framework for sustainable management of groundwater resource by local authorities. The SGMA required CDWR to develop the initial groundwater basin priority (i.e. ranking groundwater basin importance from very low to high), by January 31, 2015; the Subbasin is ranked as a medium priority (California Department of Water Resources, 2015). However, the County has divided the area into 17 subareas, and the project is located in the Western Mountain subarea (Subarea) (Luhdorff & Scalmanini Consulting Engineers, 2016).

Discussion of Checklist Responses

a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less than Significant Impact. Water quality standards are provisions approved by the U.S. EPA that describe the desired condition of a water body. These standards include the designated uses of the water body (e.g., recreation, public drinking water supply), criteria to protect designated uses (e.g., maximum pollutant concentration levels permitted in a water body), antidegradation requirements to protect existing uses and high-quality waters, and general policies to address implementation issues (U.S. Environmental Protection Agency, 2015).

Construction, demolition, excavation, grading, clearing, and grubbing, and other construction activities resulting in ground disturbances has a potential to impact water quality especially during rain events. Other potential impacts to water quality include: The accidental release of oil, fuel, and other petroleum products from construction vehicle and equipment; concrete wash water; oils from asphalt paving; construction waste and waste management areas; porta potty, etc. However, avoidance and minimization measures **AVM-WQ-1** and **AVM-WQ-2,** would be implemented to reduce construction impacts to the greatest extent feasible.

During project construction, there is potential that exposed soils, construction debris, and other pollutants could enter storm water runoff that discharges into Dry Creek. In addition, there is potential for construction-related pollutants to be spilled, leaked, or transported into storm water runoff, which could enter into drainages adjacent to the project area, and could eventually reach downstream receiving waters. The project would include the installation of permanent stormwater treatment facilities including biofiltration swales and bioretention facilities per minimization measure **AVM-WQ-3**. Biofiltration swales are vegetated ditches with a layer of imported biofiltration soil underneath and a layer of permeable material with an underdrain further below, where storm water is directed in with a concentrated flow. The bioretention facilities would be able to treat more impervious surface areas that what would be generated as a result of the project. The project would result in less than significant impacts on water quality standards and waste discharge requirements.

b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less than Significant Impact. Operation of the project would not require the use of any water and project construction would use a minimal amount of water. The bridge improvements would not substantially impact groundwater recharge. Therefore, impacts would be less than significant.

Impervious surfaces can have an effect on local streams, both in water quality and streamflow and flooding characteristics. A substantial portion of rainfall is absorbed into soils (infiltration), is stored as ground water, and is slowly discharged to streams through seeps and springs. Flooding is less substantial in these conditions because some of the runoff during a storm is absorbed into the ground, thus lessening the amount of runoff into a stream during the storm. As watersheds are urbanized, much of the vegetation is replaced by impervious surfaces, reducing the area where infiltration to ground water can occur. Thus, more stormwater runoff occurs - runoff that must be collected by extensive drainage systems that combine curbs, storm sewers, and ditches to carry stormwater runoff directly to streams. In a developed watershed, much more water arrives into a stream much quicker, resulting in an increased likelihood of more frequent and more severe flooding (U.S. Geological Survey, 2016).

The project would increase the impervious surface area by approximately 0.73 acre from the addition of the new bridge and approach roadways on either side of the bridge. The project would result in an increase in impervious surface area. Drainage patterns in the project area would remain similar to existing conditions, and the project would be designed to accommodate anticipated runoff levels. Stormwater treatment facilities would be included as part of the project to help manage stormwater flow and infiltration per minimization measure **AVM-WQ-3**. Project impacts on groundwater supplies and recharge would be less than significant.

c. Would the project 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 surface, in a manner that would:

i. Result in substantial erosion or siltation on- or off-site?

Less than Significant Impact. Alterations in drainage patterns (i.e., the pattern in which storm water flows across the Earth's surface) may result from changes in topography and impervious surfaces (e.g., steeper slopes and an increase in impervious surfaces may increase the velocity of storm water drainage). Erosion is the loosening and transportation of the upper layers of rock and soil from the Earth's surface by wind, rain, or running water. Alterations in drainage patterns that increase the drainage velocity may result in increased erosion or siltation.

Construction of the project would require excavation, vegetation removal, and other construction activities that could result in bank erosion. During construction, the existing bridge would be removed and the wingwalls and existing abutment on the western bank (Abutment One) would be fully removed. The wingwalls and existing abutment on the eastern bank (Abutment Two) would be partially removed (up to 1-foot below the existing top of roadway) in order to not disturb and have to regrade the existing east creek bank. At Abutment One, bank stabilization would be achieved using a "soil-burrito" method, a combination of rolled biodegradable fabrics with native soils, which would be planted with native cuttings to promote riparian growth. Toe rock slope protection "toe rock" would also be placed at the western toe of slope in the stream to further prevent scour. However, the toe rock would not function as traditional RSP and would predominantly be situated below ground. The purpose of the toe rock is to anchor the "soil burritos" and willow stakes in place to provide

stability. At the other existing abutment (Abutment Two), regrading and/or use of toe rock would not be necessary because it is founded on rock, which is scour resistant. Only the western creek bank at the existing bridge would be regraded to a lesser slope (to approximately 4:1 or 3:1 slope), which requires some excavation, and "soil burritos" would be placed on top of the new slope and staked into place. A total of four root wads would also be placed at approximately the existing bridge location. The root wads would be placed at the toe of the embankment.

The project would result in a minor increase in surface runoff, but the project would still be designed to accommodate anticipated runoff levels. The new bridge would not result in an increase in traffic volumes; therefore, it would not result in an increase in pollutant runoff from vehicles. The bioretention facilities would be sufficient to accommodate any minor increases to peak flow as a result of the project. The project would comply with applicable NPDES measures and standards. With the implementation of avoidance and minimization measures **AVM-WQ-4** through **AVM-WQ-8**, which include erosion control measures, impacts would be less than significant.

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

Less than Significant Impact. Although the project would result in a minor increase in surface runoff, the project would be designed to accommodate existing and anticipated runoff levels and would not result in substantial increases in polluted runoff. The new bridge would not result in an increase in traffic volumes; therefore, it would not result in an increase in pollutant runoff from vehicles. Therefore, impacts would be less than significant.

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?

Less than Significant Impact. The project would result in a minor increase to surface water runoff. The increase in impervious surface would be approximately 0.48 acre west of Dry Creek and 0.25 acre east of Dry Creek, for a total of approximately 0.73 acre. However, drainage patterns in the project area would remain similar to existing conditions, and the project would be designed to accommodate anticipated runoff levels. With an increase of impervious surfaces, focused runoff could increase resulting and erosion to that area. The new bioretention facility would be able to treat new or replaced, and existing impervious surfaces. The facility would be approximately 0.48 acre of new or replaced impervious surface west of Dry Creek, 0.22 acre of new or replaced impervious surface east of Dry Creek, and 0.12 acre of existing impervious surface west of Dry Creek for a total of 0.82 acre. Therefore, impacts would be less than significant. In addition, the project would comply with all applicable state and County codes and regulations. Therefore, the impacts would be less than significant.

iv. Impede or redirect flood flows?

Less than Significant Impact. A water diversion would likely be required to divert water around the construction area, which would temporarily alter creek flows during construction. The diversion would be minimized to the extent feasible and would not be longer than necessary to divert water through the construction area. Following construction, the water diversion would be removed, and flow patterns would be restored to their normal conditions.

d. Is the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact. As shown on Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Map Number 06055C0390E, the project area is located in Zone X, which is defined as areas

determined to be outside the 0.2 percent annual chance floodplain (Federal Emergency Management Agency, 2008). Therefore, the project area is not located on a floodplain, or within a federal regulatory floodway. Additionally, the project is not in a tsunami or seiche zone (California Department of Conservation, n.d). Therefore, there would be no impact.

e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less Than Significant Impact. During project construction, there is potential that exposed soils, construction debris, and other pollutants could enter the creek. In addition, there is potential for construction-related pollutants to be spilled or leaked into the water. However, standard BMPs, including erosion control measures, would be incorporated into the project to comply with the County's NPDES Permit. Therefore, impacts would be less than significant.

Avoidance, Minimization, and/or Mitigation Measures

Standard Conditions

Standard BMPs, including erosion control measures, would be incorporated into the project to comply with the County's NPDES Permit. The measures that would be implemented for the project area are listed in the sections below.

Hazardous Materials Conditions

To avoid and/or minimize impacts related to hazardous materials entering Dry Creek, the following avoidance and minimization measures shall be implemented:

AVM-WQ-1 Appropriate hazardous material BMPs, including having a spill prevention kit onsite, would be implemented to minimize potential for chemical spills or containment releases into Dry Creek.

AVM-WQ-2 All equipment refueling, and maintenance would be conducted in the upland staging area away from the creek, per standard specifications and regulatory permits. In addition, vehicles and equipment would be checked daily for fluid and fuel leaks, and drip pans would be placed under all equipment that is parked and not in operation.

Applicable Best Management Practices

To avoid and/or minimize impacts on water quality within Dry Creek, the following avoidance and minimization measures shall be implemented:

AVM-WQ-3 The project would include the installation of permanent stormwater treatment facilities including biofiltration swales and bioretention facilities. Biofiltration swales are vegetated sections of land that capture sediment and pollutants as stormwater passes over them in sheet flows. Biofiltration swales are vegetated ditches with a layer of imported biofiltration soil underneath and a layer of permeable material with an underdrain further below, where storm water is directed in with a concentrated flow. The bioretention facilities would treat impervious surface areas that what would be generated as a result of the project.

AVM-WQ-4 Work areas would be minimized to smallest area feasible.

AVM-WQ-5 Staging areas would be sited away from the edges of the river to reduce potential for disturbance of, or non-stormwater discharge to, Dry Creek.

AVM-WQ-6 BMPs, including silt fencing and fiber rolls, would be implemented to minimize dust, dirt, and debris resulting from construction activities, and to protect the water quality of Dry Creek pursuant to the requirements of the RWQCB and project permits.

AVM-WQ-7 Following completion of construction activities, appropriate erosion control measures would be implemented to ensure that soils disturbed by construction are stabilized, to minimize non-stormwater discharges into Dry Creek, and to meet requirements of the RWQCB and project permits.

AVM-WQ-8 All disturbance to aquatic habitat, including riparian vegetation and jurisdictional water would be minimized with the use of environmentally sensitive area fencing and all soil exposed because of project construction would be revegetated using native-plant hydroseeding or live planting methods. Restoration would be at a minimum ratio of 1:1 or as agreed upon as part of regulatory permitting.

With the implementation of the above avoidance and minimization measures and compliance with applicable water quality regulations and regulatory permits, the project would not be expected to result in substantial water quality impacts.

Permits Required

Because work would be required within the creek, a Section 1602 Lake or Streambed Alteration Agreement, Section 401 Water Quality Certification, and Section 404 Nationwide Permit and Construction General Permit would be required for the project.

11. Land Use and Planning

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Project:					
a.	Physically divide an established community?	☐	☐	☒	☐
b.	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

The following discussion incorporates the results of the Land Use and Community Impacts Memorandum that was prepared for this project (GPA Consulting, 2021b).

Regulatory Setting

State Regulations

California Government Code Section 65300

California Government Code Section 65300, et seq. establishes the obligation of cities and counties to adopt and implement general plans. The general plan is a comprehensive, long-term, and general document that describes plans for the physical development of a city or county and of any land outside its boundaries that, in the city's or county's judgment, bears relation to its planning. The general plan addresses a broad range of topics, including at a minimum land use, circulation, housing, conservation, open space, noise, and safety. In addressing these topics, the general plan identifies the goals, objectives, policies, principles, standards, and plan proposals that support the city's or county's vision for the area.

California State Zoning Law

The State Zoning Law (California Government Code Section 65800, et seq.) establishes that zoning ordinances, which are laws that define allowable land uses within a specific zone district, are required to be consistent with the general plan.

Local Regulations

Napa County General Plan

- **Goal CC-1:** Preserve, improve, and provide visual access to the beauty of Napa County.
    - **Policy CC-8**: Scenic roadways which shall be subject to the Viewshed Protection Program are designated by the Board of Supervisors in the future.
- **Goal CIR-1:** The County's transportation system shall be correlated with the policies of the Agricultural Preservation and Land Use Element and protective of the County's rural character.

Discussion of Checklist Responses

a. Would the project physically divide an established community?

Less Than Significant Impact. The project would replace an existing bridge and the new bridge would be realigned along a new straight roadway alignment. The new bridge would be constructed along a roughly east-west alignment located approximately 150 south of the existing bridge in order to straighten the bridge approach and bypass the hairpin curve segment of Dry Creek Road. Proposed changes in alignment of Dry Creek Road would require improvements to driveways accessible from Dry Creek Road and Dry Creek Fork Road in the project area. Driveway access would be provided at all times during construction.

Four driveways would be modified to accommodate the proposed alignment of Dry Creek Road. Three driveways (APN 027-330-002, 027-330-015 and 027-330-017) would be replaced to conform to the proposed roadway alignment of Dry Creek Road. Driveways 2 and 3 would merge together before intersecting with Dry Creek Road. The existing Dry Creek Road would be converted to a driveway access, Driveway 4 (currently Dry Creek Fork Road), for the properties located along Dry Creek Fork Road. Although right of way acquisition from adjacent properties would be needed due to the realignment of the roadway, changes to the roadway alignment would primarily occur adjacent to the existing roadway and would not result in the division of any existing neighborhoods.

Construction activities would potentially be disruptive to the community and would create typical construction-related temporary and intermittent inconvenience for local and regional users and adjacent residents (i.e., construction delays, equipment operations, and temporary traffic lane closures). However, avoidance and minimization measure **AVM-TR-2** (described in *Section 17, Transportation*), would avoid and minimize temporary construction impacts by ensuring public safety throughout implementation of temporary roadways and lane detours for the project.

The project is anticipated to result in a beneficial impact on the community by replacing the structurally deficient Dry Creek Bridge with a new bridge structure that would meet the current minimum design standards and improve safety at the Dry Creek crossing. The project would not physically divide an established community. Therefore, impacts would be less than significant.

b. Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. The purpose of the project is to provide a safe, functional, and reliable crossing over Dry Creek on Dry Creek Road. The purpose of the project is consistent with Goal CIR-1 of the County's General Plan and other policies specified as related to the project above. The project would not require re-designation of land use or rezoning and would be consistent with the existing land use designations included in the General Plan. Due to the increased width of the new bridge and realignment of the roadway, the project could require ROW acquisition from adjacent properties. and would not alter the existing land use of the roadway. In addition, the channel fish passage improvements of the project would be consistent with the goals and policies for fisheries habitat restoration articulated in the General Plan.

Avoidance, Minimization, and/or Mitigation Measures

Measure **AVM-TR-2** (see *Section 17. Transportation*) would be implemented to avoid and/or minimize impacts on Land Use and Planning.

12. Mineral Resources

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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?	☐	☐	☐	☒

Regulatory Setting

State Regulations

Surface Mining and Reclamation Act of 1975

The Surface Mining and Reclamation Act of 1975 (SMARA, PRC, Sections 2710-2796) encourages the production, conservation, and protection of California's mineral resources. SMARA requires that the State Mining and Geology Board map areas throughout the State of California that contain regionally significant mineral resources. These mineral resources are classified based on the Mineral Resource Zone (MRZ) system, which classifies MRZs into four categories:

- **MRZ-1**: Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
- **MRZ-2**: Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence.
- **MRZ-3**: Areas containing mineral deposits for which the significance cannot be determined from available data.
- **MRZ-4**: Areas where available information is inadequate for assignment of any other MRZ category.

Local Regulations

Napa County General Plan

The County's General Plan contains the County's goals and desires concerning mineral resources and is designed to serve as the basis for development decisions. The following goals and policies from the County's General Plan, Soil and Mineral Resources Section are applicable to the project:

- **Goal CON-7:** Identify and conserve areas containing significant mineral deposits for future use and promote the reasonable, safe, and orderly operation of mining and extraction and management activities, where environmental, aesthetic, and adjacent land use compatibility impacts can be adequately addressed.

Environmental Setting

According to the General Plan, there are three active mines within Napa County: the Napa Quarry, Pope Creek Quarry, and the American Canyon Quarry. Of these, the Napa Quarry is the only significantly producing mine which generates approximately 500,000 tons of basalt rock annually for use as concrete aggregate (Napa County Department of Conservation, Development and Planning, 2008).

Discussion of Checklist Responses

a. Would the project 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?

No Impact. According to the County's General Plan, there are three active mines within the county. However, mineral resources were not identified in or near the project area. For this reason, the project would not result in a loss of a known mineral resource, and there would be no impact.

b. Would the project 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?

No Impact. See discussion in response (a) above.

Avoidance, Minimization, and/or Mitigation Measures

None. The project would not require Avoidance, Minimization, and/or Mitigation Measures for Mineral Resources.

13. Noise

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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?	☐	☐	☐	☒

The following discussion incorporates the results of the Traffic and Noise Memorandum that was prepared for this project (GPA Consulting, 2021a).

Regulatory Setting

Federal Regulations

23 CFR 772 provides procedures for preparing operational and construction noise studies and evaluating noise abatement considered for federal and federal-aid highway projects. 23 CFR 772 requires that construction noise impacts be identified.

State Regulations

A significant environmental effect under CEQA generally is defined as a substantial or potentially substantial adverse change in the physical environment. The Caltrans Traffic Noise Analysis Protocol for New Highway Construction, Reconstruction, and Retrofit Barrier Projects (Protocol) directs a CEQA-only NSR to identify the relative increase in noise level between design-year build conditions and existing conditions. According to the Protocol, "Section 15125 of the State CEQA Guidelines states that this environmental setting normally will constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. Because CEQA focuses on comparisons to the existing conditions baseline, Caltrans determines the significance of noise impacts under CEQA based on a comparison of design-year with project conditions to the existing conditions baseline. This approach is consistent with Chapter 7 (Approach to Assessing CEQA Noise Impacts) of the Protocol.

- Section 14-8.02, Noise Control, of Caltrans standard specifications
- Section 14-8.02 provides information that can be considered in determining whether construction would result in adverse noise impacts. The specification states:
    - Do not exceed 86 A-weighted decibels (dBA) at 50 feet from the job site activities from 9 p.m. to 6 a.m.
    - 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.

Section 216 of the California Streets and Highways Code

Section 216 relates to the noise effects of a proposed freeway project on public and private elementary

and secondary schools. Under Section 216, a noise impact occurs if, as a result of a proposed freeway project, noise levels exceed 52 dBA-L_{eq}(h) in the interior of classrooms, libraries, multipurpose rooms, or spaces at public or private elementary or secondary schools.

Local Regulations

Napa County General Plan

The Napa County General Plan's Community Character Element identifies the following goals and polices regarding noise:

- **Policy CC-38**: The following are the County's standards for maximum exterior noise levels for various types of land uses established in the County's Noise Ordinance. Additional standards are provided in the Noise Ordinance for construction activities (i.e., intermittent or temporary noise).
- **Policy CC-46**: Noise created by the construction of new transportation noise sources (such as new roadways or new rail service) shall be mitigated so as not to exceed maximum acceptable outdoor or indoor noise levels for existing noise-sensitive land uses. Mitigation may include the retrofitting of existing buildings with noise insulation to maintain interior quiet.

  A detailed noise analysis shall be conducted as part of roadway improvement design where a proposed road widening, or extension may expose existing noise-sensitive land uses to traffic noise in excess of County noise standards or (in the case where noise standards have already been exceeded) result in a substantial increase in traffic noise levels. The analysis shall identify potential impacts to sensitive receptors and identify noise attenuation features to mitigate substantial noise increase to the extent feasible. Features may include noise barriers, retrofitting buildings with additional noise insulation, use of specialized construction materials, or other appropriate measures. These features shall be incorporated into the roadway design and implemented as part of construction of roadway improvements.
- **Policy CC-49**: Consistent with the County's Noise Ordinance, ensure that reasonable measures are taken such that temporary and intermittent noise associated with construction and other activities does not become intolerable to those in the area. Construction hours shall be limited per the requirements of the Noise Ordinance. Maximum acceptable noise limits at the sensitive receptor are defined in Policies CC-35, CC-36, and CC-37.

Acceptable noise levels in unincorporated areas of the county are established in Title 8 of the County Code of Ordinances. The standards as applicable to construction activities are described below in **Table 3**. The County Noise Ordinance further prohibits the use of equipment used in construction, drilling, repair, alteration, or demolition work between the hours of 7:00 p.m. and 7:00 a.m. to prevent construction-related noise from disturbing residential or commercial property owners.

Table 3. Napa County Noise Ordinance

Time Period	Residential	Commercial**	Industrial
Day (7 am - 7 pm)	75 dBA	80 dBA	85 dBA
Night (7 pm -7 am)	60 dBA	65 dBA	70 dBA
Source: (Napa County, Noise Control Regulations, 2013c)			

Environmental Setting

The project area is largely undeveloped and rural with several rural residential properties located along Dry Creek Road and Dry Creek Fork Road. The residential structures in the project vicinity are between

approximately 250 feet and 600 feet from the existing bridge. No residences are visible from the existing bridge.

Discussion of Checklist Responses

a. Would the project result in the 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?

Less than Significant Impact. Short-term noise impacts would occur during project construction, which would include demolition of the existing bridge and use of construction machinery, equipment and vehicles. During construction of the project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. **Table 4** summarizes noise levels produced by construction equipment commonly used on bridge demolition and construction projects.

Based on the levels depicted in **Table 4**, construction equipment can be expected to generate noise levels ranging from approximately 70 to 95 dBA maximum sound level at a distance of 50 feet. Actual noise levels will vary depending on various factors, including the type and number of pieces of equipment used, and duration of use.

Table 4. Construction Equipment Noise

Equipment	Typical Noise Level 50 feet from Source (dBA)
Generator	82
Skid steer loader	83
Excavator	85
Signal Boards	70
Crane	85
Tractor/Loader/Backhoe	84
Paver	85
Roller	85
Pump	77
Vibratory Pile Driver	95
Haul truck	84

Source: (U.S. Department of Transportation, 2006)

Noise impacts due to construction activities would be regulated by Section 8.16.070 – Exterior Noise Limits, or the Napa County Municipal Code (Napa County, 2021c). This code states that all construction and demolition activities can only occur between the hours of 7 a.m. and 7 p.m. The project would not include the addition of new buildings or homes to the area and would only replace the structurally deficient Dry Creek Bridge with a new one with a different alignment than the existing bridge. Thus, project improvements would not increase noise levels in the area compared to existing conditions, and construction of the project would comply with the General Plan and the Napa County Municipal Code. Additionally, due to the distance of the nearest sensitive receptor from the project area, it is not anticipated that project construction would result in substantial increases in noise at sensitive receptor locations during construction. Therefore, impacts would be less than significant.

b. Would the project result in the generation of excessive groundborne vibration or groundborne noise levels?

Less than Significant Impact. Groundborne vibration generated by road vehicles can have a significant environmental impact on nearby buildings. Inhabitants perceive vibration either directly as motion in floors and walls or indirectly as reradiated noise. Movement of household objects, or by the rattling of windowpanes and glassware is another significant source of disturbance caused by groundborne vibrations. In all these cases, the problem of groundborne vibration is important at frequencies typically up to 200 to 250 Hz. Vibration at higher frequencies is generally attenuated rapidly with distance along the transmission path through the ground. Although, the nearest sensitive receptors are located between approximately 250 and 600 feet away from the project area, vibration can travel long distances from its source.

According to the USGS human activities such as excavation during road building and (or) maintenance, and earthquake shaking, or other intense vibration may serve as a trigger for landslides. However, during construction, standard BMPs, would be used to reduce geotechnical hazards in the project area.

Temporary construction activities would be subject to the noise and vibration regulations specified in Section 18.40.200 of the Napa County Municipal Code (Napa County, 2021b). Following project construction, construction noise would cease and return to existing conditions. Operation of the project would not introduce new vibration sources, following project construction, and construction noise would cease and return to existing conditions. Additionally, due to the distance of the nearest sensitive receptor from the project area, it is not anticipated that project construction would result in substantial increases in groundborne vibration or noise at sensitive receptor locations during construction. Therefore, impacts would be less than significant.

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?

No Impact. The project would replace a structurally deficient bridge located in a rural portion of the county. The project would not construct or indirectly result in the construction of noise sensitive land uses in the vicinity of an airstrip or airport. Therefore, the project would not impact any airport land use plan.

Avoidance, Minimization, and/or Mitigation Measures

None. The project would not require Avoidance, Minimization, and/or Mitigation Measures for Noise.

14. Population and Housing

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Project:					
a.	Induce substantial unplanned 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 people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Environmental Setting

The project would be located in unincorporated Napa County, west of Oakville, southwest of Rutherford, and north of Kenwood. The population in Napa County was estimated to be 140,973 in 2017 (U.S. Census, 2017). The project area is largely undeveloped and rural with several rural residential properties located along Dry Creek Road and Dry Creek Fork Road. The residential structures in the project vicinity are between approximately 250 feet and 600 feet from the existing bridge. No residences are visible from the existing bridge.

In the project area, Dry Creek Road is classified as a rural minor collector. The existing bridge and roadway approach are on a winding road alignment with limited views to and from the bridge because of the angle of the roadway and bridge, and trees and vegetation surrounding the roadway and bridge. Within the project area, Dry Creek is a natural, un-lined waterway with medium to heavily vegetated banks and a rocky/cobbly creek bed. Several areas along the creek are lined with steep slopes and dense vegetation, such as poison oak, making the creek inaccessible at these locations.

Discussion of Checklist Responses

a. Would the project induce substantial unplanned 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)?

No Impact. The project would not induce population growth because the project only includes the removal and installation of a new bridge. While the bridge would increase from one lane to two lanes, that would not allow more traffic through the area, as the current bridge is used as if it had two lanes. Additionally, the project does not include the construction of homes or businesses. As such, the project would not induce population growth. Therefore, there would be no impact.

b. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The project would not involve the displacement of housing units or people. Partial parcel acquisition may be required to complete the project; however, acquisition of those parcels would not require the relocation or displacement of current residents. Therefore, there would be no impact.

Avoidance, Minimization, and/or Mitigation Measures

None. The project would not require Avoidance, Minimization, and/or Mitigation Measures for Population and Housing.

15. Public Services

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Project:					
a.	Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
	Fire protection?	☐	☐	☒	☐
	Police protection?	☐	☐	☒	☐
	Schools?	☐	☐	☐	☒
	Parks?	☐	☐	☐	☒
	Other public facilities?	☐	☐	☐	☒

Regulatory Setting

No federal or state plans, policies, regulations, or laws related to public services are applicable to the project.

Local Regulations

Napa County General Plan

The following goals and policies from the General Plan Housing Element are applicable to the project:

- **Goal H-7**: Maintain an orderly pace of growth that helps the County preserve the public health, safety, and welfare and provide needed public services.

Environmental Setting

The project area is in a rural area of the county. Emergency services that service the project area include:

- ***Fire Protection:*** Napa County Fire Department – Station 16 Dry Creek/Lokoya (Volunteer); 5900 Dry Creek Road, Napa, CA 94558
- ***Police Protection:*** Yountville Police Department; 1950 Mulberry Street, Yountville, CA 94599

There are no schools, parks, or other public facilities within a 2-mile radius of the project area.

Discussion of Checklist Responses

a. 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 public services fire protection, police protection, schools, parks, or other public facilities?

i.-ii. Fire Protection, Police Protection

Less Than Significant Impact. Construction of the project would not require full closure of the roadway; a construction traffic staging plan was prepared to ensure continuous access would be provided to through traffic and driveway access to adjacent residencies throughout project

construction. During the first stage of the project (5 months), the existing Dry Creek Road, including the bridge, would remain open to traffic in both directions while the new bridge is being constructed. For the remainder of project construction, Stages 2-4, the new bridge over Dry Creek would have a temporary lane that would be used for continuous access. Through traffic may experience slowdowns or temporary delays during construction. However, avoidance and minimization measure **AVM-TR-2** (described in *Section 17, Transportation*), would avoid and minimize temporary construction impacts by ensuring public safety throughout implementation of temporary roadways and lane detours for the project; thus, the project would not substantially impair fire protection or police protection in the project area.

The project would not increase the capacity of the roadway; therefore, the project would not result in population growth that would require the need for additional fire protection services, police protection services. The project would improve public safety and maintain access across the bridge; therefore, impacts would be less than significant.

iii.– v. Schools, Parks, Other Facilities

No Impact. There are no schools, parks, or other public facilities within a 2-mile radius of the project. Additionally, as discussed above in response (a.i-ii), the project would not increase the capacity of the roadway; therefore, the project would not result in population growth that would require the need for additional schools, parks, or other public facilities or governmental services. Therefore, there would be no impact.

Avoidance, Minimization, and/or Mitigation Measures

Measure **AVM-TR-2** (see *Section 17. Transportation*) would be implemented to avoid and/or minimize impacts on Public Services.

16. Recreation

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Project:					
a.	Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b.	Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Regulatory Setting

No federal or state plans, policies, regulations, or laws related to recreation are applicable to the project.

Local Regulations

Napa County General Plan

The General Plan discusses Recreation as a resource that should be available to everyone at no cost, or low costs price points. Due to this, the county aims to preserve recreational and open spaces.

- **Goal CON-6**: Preserve, sustain, and restore forests, woodlands, and commercial timberland for their economic, environmental, recreation, and open space values.
    - **Policy CON-1**: The County will preserve land for greenbelts, forest, recreation, flood control, adequate water supply, air quality improvement, habitat for fish, wildlife and wildlife movement, native vegetation, and natural beauty. The County will encourage management of these areas in ways that promote wildlife habitat renewal, diversification, and protection.

Environmental Setting

The project area is between two major transportation corridors, CA-12 located 4.3 miles to the west of the project area and CA-29 located 2.9 miles the east of the project area. Both freeways support commercial uses and are lined with wine and entertainment businesses. The immediate area surrounding the project area includes mostly rural private residential uses and vineyards. The nearest recreational uses include Jack London State Historic Park, approximately 5.1 miles to the southwest, and Lake Hennessey City Recreation Area, approximately 8.1 miles to the northeast.

Discussion of Checklist Responses

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?

No Impact. The project is not anticipated to result in population growth or generate increased demand for recreational facilities. Construction of the project also would not necessitate the closure of any parks. As such, the project would not be expected to increase the use of any existing parks or recreational facilities. Therefore, there would be no impact.

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?

No Impact. The project does not include recreational facilities and would not require the construction of any such facilities. The project would be located entirely within County land and TCEs on adjacent properties and would be limited to bridge replacement, riparian restoration, and associated activities. Therefore, there would be no impact.

Avoidance, Minimization, and/or Mitigation Measures

None. The project would not require Avoidance, Minimization, and/or Mitigation Measures for Recreation.

17. Transportation

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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?	☐	☐	☒	☐

The following discussion incorporates the results of the Traffic and Noise Memorandum that was prepared for this project (GPA Consulting, 2021a).

Regulatory Setting

Local Regulations

Napa County General Plan

The Circulation Element of the General Plan's Circulation and Safety Elements identify the following goal and policies that are applicable to the project:

- **Goal CIR-2:** The County's transportation system shall provide for safe and efficient movement on well-maintained roads throughout the County, meeting the needs of Napa County residents, businesses, employees, visitors, special needs populations, and the elderly.
    - **Policy CIR-5:** Roadways outside the urbanized areas of the county shall reflect the rural character of the county.
    - **Policy CIR-6:** The county's roadway improvements should minimize disruption to residential neighborhoods, communities, and agriculture.
    - **Policy CIR-7:** Roadway improvements shall be designed to conform to existing landforms and shall include landscaping and/or other treatments to ensure that aesthetics and rural character are preserved.
    - **Policy CIR-8:** Roadway, culvert, and bridge improvements and repairs shall be designed and constructed to minimize fine-sediment and other pollutant delivery to waterways, to minimize increases in peak flows and flooding on adjacent properties, and where applicable to allow for fish passage and migration, consistent with all applicable codes and regulations.
    - **Policy SAF-40:** The County will seek to maintain the structural and operational integrity of essential public services during the event of flooding and other natural disaster, including the possible location, when feasible, of new essential public facilities outside of flood hazard zones. All critical public infrastructure intended for emergency use shall be provided with a source of alternate power.

Environmental Setting

Dry Creek Road is classified as a rural minor collector. There are three driveways located on the western side of the existing bridge, one on the northern side of the road and two driveways on the eastern side; east of the existing bridge, there is one driveway located on the northern side of the existing roadway. The current bridge is an 18 foot-wide single lane bridge with no shoulders that carries 2-way traffic. The current ADT volume for Dry Creek Bridge is 774 cars, with a projected ADT of 1,348 cars in 2040.

Discussion of Checklist Responses

a. Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less than Significant Impact. The project would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system. The project would replace a structurally deficient bridge along Dry Creek Road in order to provide a safe, functional, and reliable crossing over Dry Creek. Although the project would ensure continued vehicular and pedestrian safety and reliable accessibility along Dry Creek Road, it would not increase traffic along the roadway in relation to the existing traffic capacity. Therefore, impacts would be less than significant.

b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Less Than Significant Impact. Section 15064.3(b) of the CEQA Guidelines states that projects considered transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact. The Office of Planning and Research (OPR) Technical Advisory on Evaluating Transportation Impacts in CEQA states, "Transit and active transportation projects generally reduce VMT and therefore are presumed to cause a less-than-significant impact on transportation" (Office of Planning and Research, 2018). Transportation projects include rehabilitation, maintenance, replacement, safety, and repair projects designed to improve the condition of existing transportation assets (e.g., highways, roadways, bridges, culverts) and would not add additional motor vehicle capacity. Dry Creek Road is a rural minor collector in the County road system, with a current ADT along the road of 774 cars. Although the existing bridge is a single lane bridge that carries two-way traffic, the new bridge would have two lanes (one lane in each direction). However, the project would not increase the capacity of the roadway or bridge as the new bridge width is designed to mee current design standards that will provide a safe, functional, and reliable crossing over Dry Creek. Therefore, implementation of the project would not conflict or be inconsistent with the provisions of CEQA Guidelines Section 15064.3, subdivision (b) because it would replace an existing bridge and is designed to improve the condition of an existing transportation asset (bridge) and would not add additional motor vehicle capacity. Therefore, impacts would be less than significant.

c. Would the project substantially increase hazards due to a geometric design feature or incompatible uses?

Less than Significant Impact. The project would comply with County Road and Street standards to replace a structurally deficient bridge along Dry Creek Road. Construction staging would be completed within the project footprint and accessed primarily from the existing Dry Creek Road. During construction, potential safety hazards could result from construction vehicles and equipment traveling or being staged along the roadway. Because the shortest detour route would be approximately 40 miles, the project would be constructed in four stages in order to provide continuous access for through traffic.

Although the new bridge would have two lanes (one lane in each direction), the project would not increase the capacity of the roadway or bridge. No dangerous geometric design features or incompatible uses would be implemented as part of the project, in comparison to existing conditions, as the project would

straighten the bridge approach to bypass the hairpin curve segment of Dry Creek Road. Therefore, impacts would be less than significant.

d. Result in inadequate emergency access?

Less Than Significant Impact. The project would be completed in four stages to ensure continuous access would be maintained during construction. Though continuous access for through traffic would be maintained on Dry Creek Road, traffic may experience temporary slowdowns or delays during construction. During construction, emergency vehicles or personal vehicles travelling during an emergency may use Dry Creek Road in the project area, which could conflict with construction vehicles and equipment that are travelling or being staged along the roadway for project construction. However, construction-related traffic impacts on emergency services or emergency evacuation routes would be avoided and minimized with implementation of traffic control measures **AVM-TR-1** and **AVM-TR-2**, which include preparing a construction staging plan, and coordination with emergency service providers to ensure that appropriate detour routes are provided, if necessary. Therefore, impacts would be considered less than significant.

Avoidance, Minimization, and/or Mitigation Measures

To avoid and/or minimize impacts on traffic, the following avoidance and minimization measures shall be implemented:

AVM-TR-1: The project would comply with the Napa County Road and Street Standards during construction. Per Section 17, Traffic Control Devices, project construction would be consistent with construction procedures identified in the California Manual on Uniform Traffic Control Devices.

AVM-TR-2: A Traffic Control Plan would be prepared to provide details regarding the access route details for each construction stage and an implementation plan.

18. Tribal Cultural Resources

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

Regulatory Setting

State

Assembly Bill 52

In 2014, AB 52 added the term "tribal cultural resources" to CEQA, and AB 52 is commonly referenced instead of CEQA when discussing the process to identify tribal cultural resources (as well as identifying measures to avoid, preserve, or mitigate effects to them). Defined in PRC Section 21074(a), a tribal cultural resource is a CRHR or local register eligible site, feature, place, cultural landscape, or object which has a cultural value to a California Native American tribe. Tribal cultural resources must also meet the definition of a historical resource.

Environmental Setting

The following environmental setting was developed using the Archaeological Survey Report (ASR) prepared for this project (Paleowest, 2021). The Napa Valley, at the time of European contact, was within the territory of the Wappo, a Yukian language group (Shipley, 1978). The Wappo territory at this time included the area between Cobb Mountain, Alexander Valley, and the City of Napa. While little is known about the Napa Valley Wappo during the ethnographic period, it is noted that two Wappo ethnographic villages were recorded near the project APE, these villages were called Annakotanoma, and Tsemanoma.

The settlement pattern typical of the Wappo around the time of Euro-American contact resembles the "tribelet" or "village community". These village communities had a main winter village, where the chief resided, with smaller, secondary, satellite settlements that were used during the spring and summer months.

Native American Consultation

On July 21, 2021, the Napa County Planning Division mailed, via certified delivery, notifications of an invitation to consult on the proposed project to three tribes who had requested to be notified pursuant to AB 52. Notifications were sent to the Mishewal Wappo Tribe of Alexander Valley, the Yocha Dehe

Wintun Nation, and the Middletown Rancheria of Pomo Indians. The County received no responses nor requests to consult under AB 52 from any of the notified tribes during either the 30-day contact period or afterward.

Additionally, consultation with the NAHC in Sacramento was conducted by submitting an electronic request form through the NAHC website on March 19, 2019. PaleoWest received a response letter from Katy Sanchez of the NAHC dated April 15, 2019 providing a list of six Native American tribal representatives with traditional lands or cultural places within the county: Charlie Wright (Cortina Rancheria - Kletsel Dehe Band of Wintun Indians), Gene Buvelot (Federated Indians of Graton Rancheria), Greg Sarris (Federated Indians of Graton Rancheria), Jose Simon III (Middletown Rancheria), Scott Gabaldon, Mishewal-Wappo Tribe of Alexander Valley, and Anthony Roberts (Yocha Dehe Wintun Nation).

All tribal representatives were provided a description of the project, a location map, and contacts for any information requests or project concerns. However, consultation with the NAHC and with interested Native American individuals and groups provided by the NAHC, resulted in no additional information about specific cultural resources or sacred sites within the Area of Potential Effects (APE).

Discussion of Checklist Responses

a. and b. Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is 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 a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.

Less than Significant Impact. A record search of the APE and a surrounding 1-mile radius was conducted at the California Historic Resources Information System, NWIC to identify any historic properties or previous cultural resources studies on file. The record search did not identify any prehistoric resources or previous cultural resources. In addition, no cultural resources or sacred sites were identified by the NAHC consultation, or with the interested Native American individuals and groups identified by the NAHC.

Pedestrian reconnaissance field surveys were also conducted to examine the APE for evidence of cultural resources. Native soil was visible in most of the project APE, and animal burrows in the creek banks provided the opportunity for additional examination of subsurface native soils. No prehistoric or historic cultural material was observed during the reconnaissance survey.

The records search, consultation with the NAHC and interested Native American individuals, and the pedestrian reconnaissance survey did not identify any historic properties within the APE. Due to the nature of previous ground disturbances within the APE for the construction of both Dry Creek Road and the Dry Creek Road Bridge, and the relatively small amount of new horizontal ground disturbances, there remains a low potential to adversely affect unknown, potentially intact buried archaeological deposits that might be eligible for National Register of Historic Places listing. Based on existing records and evaluation, any impacts would be less than significant. In the event that indications of tribal resources are found, the avoidance and minimization measures of **AVM-CUL-2** would be implemented, ensuring that there would continue to be less than significant impacts.

Avoidance, Minimization, and/or Mitigation Measures

If unanticipated buried cultural materials or human remains are encountered during construction of the project, avoidance and minimization measure **AVM-CUL-2** would be implemented.

19. Utilities and Service Systems

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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 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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Regulatory Setting

Privately owned companies that provide electricity, natural gas, water and sewer, and telephone services are regulated by the California Public Utilities Commission (CPUC). The CPUC is available to help resolve disputes and work through issues unresolvable through the service provider. Publicly owned utilities, such as power, gas, and cable television and Internet services, are not regulated by the CPUC.

Environmental Setting

There are overhead utility lines in the project area and one 3-inch diameter AT&T conduit that runs along the existing bridge. No other utilities have been identified in the project area.

The county is served by five solid waste service providers and two joint power agencies/authorities (Napa County, 2008). Solid waste generated by the project would likely be taken to the Devlin Road Recycling and Transfer Facility (approximately 20 miles away from the project), where most of the County's solid waste is sorted and routed for disposal elsewhere. The Devlin Road facility receives an average of 560 tons of waste a day but has the capacity to handle up to 1,440 tons of daily waste (Napa County, 2008). Items brought to the Devlin Road Facility are first assessed for recycling, reuse, or composting before being sent to the Keller Canyon Landfill for disposal (Napa Recycling and Waste Services, 2013). Keller Canyon Landfill, located in Pittsburg, CA, accepts solid waste, non-liquid industrial waste, contaminated soils, ash, grit, and sludges. The landfill is permitted to accept up to 3,500 tons of waste per day; however, current daily disposal volumes average 2,500 tons (Allied Waste, 2013). A survey of landfill capacity conducted in 2006 indicated that the facility had 64.8 million cubic yards of remaining capacity and an estimated closure date of 2030 (Napa County, 2008).

Discussion of Checklist Responses

a. Would the project 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?

Less Than Significant Impact. The project would not require the relocation or construction of new or expanded water or wastewater treatment facility or the expansion of an existing facility, electric power, or natural gas facilities. However, one 3-inch diameter AT&T conduit would be relocated from the existing bridge and suspended from the deck between two girders on the north side of the proposed bridge.

The project would include the construction of a new straight roadway alignment and a new bridge structure along a roughly east-west alignment approximately 150 feet south of the existing bridge. This new roadway alignment and new bridge is needed in order to straighten the bridge approach and bypass the hairpin curve segment of Dry Creek Road. The new approach roadway and bridge would result in a minor increase of impervious surface areas. These modifications would affect existing drainage patterns, and the rate or amount of surface runoff during project operation. Project design features, including installation of a permanent stormwater treatment facility would be implemented as part of the project per avoidance and minimization **AVM-WQ-3** (see *Section 10 Hydrology and Water Quality*). Expansion of existing drainage facilities would not be required. Therefore, impacts would be less than significant.

b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less Than Significant Impact. Project construction would use a minimal amount of water (typically limited to water applied for dust control and concrete wash out) and there are sufficient water supplies available to serve these needs. The project would not involve the construction of any structures or facilities that would require additional water supplies. Construction of the new single span bridge, new roadway encroachment, and demolition of the existing bridge over Dry Creek would result in removal of approximately 1.04 acres of vegetation within the project area, including 0.94 acres in the oak woodlands habitat and 0.10 acres of riparian habitat (GPA Consulting, 2021c). Once construction is completed, the area would be revegetated using hydroseeding as a general erosion control. In addition, container plants would be used to replace native trees and shrubs. Additional water could be temporarily required for landscape irrigation, but the amount of water needed would not necessitate any new or expanded entitlements.

The project would not increase population or alter the distribution of population in the project such that additional water supplies would be required. The project also would not expand agriculture and thus would not require additional agricultural water supply. Therefore, impacts would be less than significant.

c. Would the project 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?

No Impact. The project would not induce population growth or include any uses, features, or facilities that would generate wastewater and would not require the need for wastewater treatment. Therefore, there would be no impact.

d. Would the project 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?

Less Than Significant Impact. Solid waste would be generated during construction. The existing bridge structure, roadway approaches, and adjacent driveways would be demolished and require disposal.

Material excavated for construction of the bridge abutments and pier would also require disposal. However, the disposal of solid waste during construction would be short-term, and operation of the project would not result in the long-term generation, or disposal, of solid waste. Solid waste would be taken to Devlin Road Recycling and Transfer Facility, which has capacity to handle the anticipated amounts of construction waste. Therefore, the project would not generate solid waste in excess of the capacity of these facilities during construction, and impacts would be less than significant.

e. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No Impact. The project would not result in the long-term generation, or disposal, of solid waste during operation. The disposal of solid waste during construction would be short-term, and would be conducted in compliance with federal, state, and local statues and regulations related to solid waste. Therefore, there would be no impact.

Avoidance, Minimization, and/or Mitigation Measures

Measure **AVM-WQ-3** (see *Section 10 Hydrology and Water Quality*) would be implemented to avoid and/or minimize impacts on Utilities and Service Systems.

20. Wildfire

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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?	☐	☐	☒	☐

Regulatory Setting

State Regulations

California Department of Forestry and Fire Protection

California law requires CAL FIRE to designate areas, or make recommendations for local agency designation of areas, that are at risk from significant fire hazards based on fuels, terrain, weather, and other relevant factors (California Department of Forestry and Fire Protection, 2013). These areas at risk of fire losses are referred to by law as "Fire Hazard Severity Zones." The law requires different zones to be identified (Moderate to Very High). But with limited exception, the same wildfire protection building construction and defensible space regulations apply to all "State Responsibility Areas" and any "Fire Hazard Severity Zone" designation.

Local Regulations

Napa County General Plan

The General Plan contains the County's goals and desires concerning hazards (Napa County, 2008). The following goals and policies from the County's General Plan Safety Element are applicable to the project:

- **Goal SAF-3:** It is the goal of Napa County to effectively manage forests and watersheds, and to protect homes and businesses from fire and wildfire and minimize potential losses of life and property.

Environmental Setting

The project is in a State Responsibility Area, which is defined as an area that the state has the primary responsibility for the prevention and suppression of wildland fires (California Board of Forestry and Fire Protection, 2010). The project area is in the western portion of central Napa County; this area of the county contains moderate to very fire severity zones (Calfire, 2007). The project area is primarily flat with dense trees and grasslands including Mixed Oak Forest, California Bay Forest, and Annual Brome Grassland, with a steep slope north of the bridge and to the northeast of the hairpin turn along Dry Creek Road.

Discussion of Checklist Responses

a. Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact. During project construction, there would be continuous access on Dry Creek Road. Temporary roadway sections would be constructed to allow one lane of through traffic in each direction at all times. However, traffic may experience slowdowns or delays during construction. With avoidance and minimization measure **AVM-TR-2**, the County would ensure continuous emergency access through the project area throughout construction. Therefore, impacts on emergency response and evacuation plans would be less than significant.

b. Would the project, 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?

Less Than Significant Impact. According to the Napa County General Plan's Safety Element, the project is located in an area that is classified as both Moderate and Very High Fire Hazard Severity Zones. The project would replace a structurally deficient bridge with a bridge that has been designed to comply with current AASHTO and Caltrans standards. In addition, the bridge and road would realign and straighten the existing hairpin turn to reduce sight distance hazards. BMPs, including site vegetation maintenance during construction, would be implemented to reduce the potential for fire hazards in the project area. Construction and operation of the project would not increase the potential for wildland fires or expose people or structures to a significant risk of loss, injury or death involving wildland fires in the area. Therefore, the impacts would be less than significant.

c. Would the project 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?

Less than Significant Impact. As stated previously in *Section 18 Utilities and Services*, there is one existing 3-inch diameter AT&T conduit that would be relocated from the existing bridge and suspended from the deck between two girders on the north side of the proposed bridge. In addition, construction equipment may require the use of combustible equipment that could create sparks. There are vegetated steep slopes surrounding the project area that could exacerbate wildfire risks. Wildfire could cause direct or indirect injury to persons in the vicinity of the project altered through environmental conditions. The presence of construction equipment and fuel sources could temporarily exacerbate fire risk in the project area. BMPs including site vegetation maintenance would be implemented to reduce the potential for fire hazards in the project area; thus, construction and operation of the project would not increase the potential for significant risk in comparison to existing conditions. Therefore, impacts would be less than significant.

d. Would the project 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?

Less Than Significant Impact. The project area is located in a rural area of Napa County that is largely undeveloped. Dry Creek Road is a winding two-lane roadway (one lane in each direction) that traverses the Napa hillsides and is surrounded by forestland. The proposed bridge structure would result in changes to the roadway alignment and vertical profile of the existing structure; although the new bridge would be longer and wider than the existing bridge, it would not increase capacity in the project area. Implementation of the project would not result in a substantial alteration of existing drainage patterns in the project area. The project would result in a minor increase of approximately 0.73 acre of impervious

surface area (0.48 acre west of the creek and 0.25 acre east of the creek), which could result in a slight increase in surface runoff. However, the project would be designed to accommodate existing and anticipated runoff levels with stormwater management facilities such as bioswale and bioretention facilities. Additionally, the project would not result in substantial increases in runoff or drainage changes that would result in downslope or downstream flooding or landslides. Therefore, impacts would be less than significant.

Avoidance, Minimization, and/or Mitigation Measures

Measure **AVM-TR-2** (see *Section 17. Transportation*) would be implemented to avoid and/or minimize impacts on Wildfire.

21. Mandatory Findings of Significance

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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?	☐	☒	☐	☐

Regulatory Setting

Please refer to the regulatory setting sections above for discussions of the applicable federal, state, or local regulations.

Existing Environment

Please refer to the sections above for discussions of the existing environment.

Discussion of Checklist Responses

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?

Less Than Significant with Mitigation Incorporated. As described in *Section 4 Biological Resources*, implementation of mitigation measures **MM-BIO-4**, **MM-BIO-27** to **MM-BIO-28**, and **MM-BIO-51** would reduce impacts to less than significant. Avoidance and minimization measures **AVM-BIO-1** to **AVM-BIO-3**, **AVM-BIO-5** to **AVM-BIO-26**, **AVM-BIO-29** to **AVM-BIO-50**, and **AVM-BIO-52** to **AVM-BIO-55** would be implemented to avoid and minimize impacts on biological resources. In addition, *Section 5 Cultural Resources* and *Section 18 Tribal Cultural Resources* describes measures **AVM-CUL-1 and AVM-CUL-2** which would avoid and minimize impacts on cultural and tribal cultural resources. With the inclusion of those mitigation measures, the project would result in a less than significant impact to the quality of the environment, fish or wildlife species habitat, fish or wildlife population, plant or animal communities, the number or restricting the range of a rare or endangered plant or animal, or important examples of the major periods of California history or prehistory.

b. Does the project have impacts that are individually limited, but cumulatively considerable?

Less Than Significant with Mitigation Incorporated. According to 14 CCR § 15355, "Cumulative impacts" refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. The cumulative impact from several projects is the change in the environment which results from the incremental impact when added to other closely related past, present, and reasonably foreseeable future projects. **Table 5** provides a summary of projects within two miles of the project area, which is used in the cumulative impact analysis. The project would not result in any significant impacts with the implementation of mitigation measures **MM-BIO-4**, **MM-BIO-27** to **MM-BIO-28**, and **MM-BIO-51** mentioned in *Section 4 Biological Resources*. Implementation of those measures would reduce impacts to a less than significant level. Additionally, avoidance and minimization measures **AVM-BIO-1** to **AVM-BIO-3**, **AVM-BIO-5** to **AVM-BIO-26**, **AVM-BIO-29** to **AVM-BIO-50**, and **AVM-BIO-52** to **AVM-BIO-55** would be implemented to avoid and minimize impacts on biological resources. Therefore, with implementation of avoidance, minimization, and/or mitigation measures, the project's contribution to cumulative impacts would be less than cumulatively considerable. With implementation of avoidance and minimization measures addressed for the remaining environmental issue areas, any potential impacts would be less than significant. Because the project's impacts would be less than significant, the project would not contribute considerably to cumulative impacts. Therefore, cumulative impacts would be less than significant.

Table 5. Projects Within Two Miles

Project Name	Project Limits	Project Description	Project Location in Relation to Project Area	Status
County Road Striping Maintenance, RDS 21-27	The project is located on various roads throughout Napa County, including Dry Creek Road.	The proposed project will consist of the placement of Caltrans specification for water based latex paint. The restriping shall consist of four inches in all locations, unless specifically called out otherwise.	The County Road Striping Maintenance project is located on various roads throughout Napa County, including Dry Creek Road.	Completed
RFQ 2021 Dry Creek MPM 6.2 Repair, Dry Creek MPM 9.75 Repair, and Campbell Culvert Replacement	The project is located at Latitude: N38.382645 Longitude: -122.400976 and Latitude: N38.407175 Longitude: -122.433525.	The proposed project will consist of slide repairs, culvert replacement, and roadway stabilization.	RFQ 2021 Dry Creek 6.2 and Campbell Culvert project is located approximately 1.1 miles from the project area.	Design in late-2021
Mt. Veeder Road Rehabilitation, RDS 21-16	This project is located on Mt. Veeder Road in Napa County for its entire length from Redwood Road	The proposed project will include pavement grind outs and replacement at locations marked on the ground including additive alternate bids	Mt. Veeder Road Rehabilitation project is located approximately 0.7 miles from the project area.	Completed

	to Dry Creek Road.	for double chip seal and alternate improvement at the intersections.		
Partrick & Dry Creek Construction Project, RDS 21-18	This project is located on Partrick and Dry Creek Road in Napa County.	This project is for a major rehabilitation for a portion on Partrick and Dry Creek Road in Napa County. The rehabilitation will consist of a full depth base rehabilitation and covering with a layer of new asphalt. Bicycle signing and Pavements Markings will also be part of this project.	Partrick and Dry Creek Construction project is located approximately 1.1 miles from the project area.	Completed

Source: (Napa County, 2021)

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

Less Than Significant with Mitigation Incorporated. The project would not have environmental effects causing substantial adverse effects on human beings, directly or indirectly. Impacts associated with biological resources, cultural resources, hazards and hazardous materials, hydrology and water quality, and transportation would all be reduced with implementation of avoidance, minimization, and/or mitigation measures **AVM-BIO-1** to **AVM-BIO-3**, **MM-BIO-4**, **AVM-BIO-5** to **AVM-BIO-26**, **MM-BIO-27** to **MM-BIO-28**, **AVM-BIO-29** to **AVM-BIO-50**, **MM-BIO-51**, and **AVM-BIO-52** to **AVM-BIO-55**; **AVM-CUL-1** through **AVM-CUL-2**; **AVM-HAZ-1** through **AVM-HAZ-3**; **AVM-WQ-1** through **AVM-WQ-8;** and **AVM-TR-1** through **AVM-TR-2**. Therefore, with implementation of these measures, impacts would be less than significant.

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IX. List of Technical Studies

The following studies were prepared for this environmental document:

- Avila and Associates, Consulting Engineers, Inc. *Dry Creek Bridge Replacement Project – Final Design Hydraulic Study.* February 2020
- Avila and Associates, Consulting Engineers, Inc. *Dry Creek Bridge Replacement Project – Water Quality Memorandum.* September 2021
- GPA Consulting. *Dry Creek Bridge Replacement Project - Biological Assessment*. April 2021
- GPA Consulting. *Dry Creek Bridge Replacement Project - Equipment Staging Memorandum.* January 2021
- GPA Consulting. *Dry Creek Bridge Replacement Project – Hazardous Materials Memorandum.* March 2020
- GPA Consulting. *Dry Creek Bridge Replacement Project - Land Use and Community Impacts Memorandum.* February 2021
- GPA Consulting. *Dry Creek Bridge Replacement Project – Natural Environment Study.* February 2019
- GPA Consulting. *Dry Creek Bridge Replacement Project – Construction Noise and Traffic Memorandum.* January 2021
- PaleoWest. *Dry Creek Bridge Replacement Project – Draft Historic Property Survey Report and Archaeological Survey Report.* October 2021.