

Chiles Pope Bridge over Chiles Creek Replacement Project

Initial Study/Mitigated Negative Declaration



Prepared for:

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



Prepared by:

GPA Consulting
2600 Capitol Ave., Ste 100
Sacramento, CA 95816



September 2021

GPA Consulting. 2021. *Chiles Pope Bridge over Chiles Creek Replacement Project
Initial Study/Mitigated Negative Declaration.*
Prepared for Napa County Department of Public Works. September. Sacramento, CA.

TABLE OF CONTENTS

Table of Contents.....	3
List of Tables	4
List of Figures	4
List of Acronyms.....	5
I. INTRODUCTION	8
1. Introduction	8
2. Legal Authority and Findings	8
3. Intent and Scope of this Document.....	8
4. Organization of this Document.....	13
5. Terminology	13
II. PROJECT DESCRIPTION	15
1. Project Title	15
2. Lead Agency Name and Address	15
3. Project Sponsor	15
4. Contact Person	15
5. Project Location	15
6. General Plan Designation and Zoning	15
7. Project Description.....	15
III. Environmental Factors Potentially Affected	20
IV. Determination.....	21
V. Evaluation of Environmental Impacts.....	22
1. Aesthetics	23
2. Agriculture and Forestry Resources	29
3. Air Quality	33
4. Biological Resources	41
5. Cultural Resources	70
6. Energy.....	77
7. Geology and Soils.....	79
8. Greenhouse Gas Emissions	85
9. Hazards and Hazardous Materials.....	90
10. Hydrology and Water Quality	95
11. Land Use and Planning.....	103
12. Mineral Resources	105
13. Noise.....	107
14. Population and Housing.....	112
15. Public Services	113
16. Recreation.....	115
17. Transportation.....	117
18. Tribal Cultural Resources	120
19. Utilities and Service Systems.....	124

20.	Wildfire	126
21.	Mandatory Findings of Significance	129
VI.	List of Preparers	131
VII.	References	132
VIII.	List of Technical Studies	138

LIST OF TABLES

Table 1. San Francisco Bay Area Attainment Status of the State and Federal Ambient Air Quality Standards	34
Table 2. BAAQMD CEQA Thresholds of Significance for Criteria Air Pollutants	37
Table 3. Napa County Noise Ordinance	109
Table 4. Construction Equipment Noise.....	109

LIST OF FIGURES

Figure 1: Regional Location	9
Figure 2: Project Location	10
Figure 3: Project Footprint.....	11
Figure 4: Project Features	12

LIST OF ACRONYMS

AB	Assembly Bill
AM	morning
AQMP	Air Quality Management Plan
ARB	Air Resources Board
bgs	Below Ground Surface
BMP	Best Management Practices
BOF	Board of Forestry and Fire Protection
BSA	biological study area
BSC	Building Standards Commission
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CGP	Construction General Permit
CGS	California Geological Survey
CMP	Corrugated Metal Pipe
CNDDDB	California Natural Diversity Database
CNPS Inventory	California Native Plant Society Inventory of Rare, Threatened, and Endangered Plants of California
CO	carbon monoxide
CO ₂	carbon dioxide
County	County of Napa
CWA	Clean Water Act
dB	decibel(s)
DHS	California Department of Health Services

DOC	California Department of Conservation
DPM	Diesel Particulate Matter
DSA	Disturbed Soil Area
DTSC	Department of Toxic Substances Control
EO	Executive Order
FCAA	Federal Clean Air Act
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FMMP	Farmland Mapping and Monitoring Program
FSR	Fire Safe Regulations
GHG	greenhouse gas
GIS	Geographical Information System
HDPE	High Density Poly Ethylene
L _{max}	maximum sound level
L _{min}	minimum sound level
MBTA	Migratory Bird Treaty Act
MND	Mitigated Negative Declaration
MLD	Most Likely Descendant
MPO	Metropolitan Planning Organization
MRZ	Mineral Resource Zone
MS4	Municipal Separate Storm Sewer System
NAAQS	National Air Ambient Air Quality Standards
NAHC	Native American Heritage Commission
Neg Dec	Negative Declaration
NHPA	National Historic Preservation Act
NO ₂	Nitrogen Dioxide
NO _x	Nitrogen Oxide
NPDES	National Pollutant Discharge Elimination System
NVTA	Napa Valley Transportation Authority

O ₃	Ozone
OWP	Overall Work Program
PM	evening
PM _{2.5}	particulate matter 2.5 microns or less in diameter
PM ₁₀	particulate matter 10 microns or less in diameter
PRC	Public Resources Code
project	Chiles Pope Bridge Project
ROW	Right-of-Way
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SR	State Route
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminants
TCR	Tribal Cultural Resource
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
US EPA	U.S. Environmental Protection Agency
USGS	U.S. Geological Survey
USFWS	U.S. Fish and Wildlife Service
WDR	Waste Discharge Requirements

I. INTRODUCTION

Napa County Department of Public Works 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 Chiles Pope Bridge Replacement Project (Project). This document was prepared pursuant to the requirements of the California Environmental Quality Act (CEQA) of 1970 (as amended) and the State CEQA Guidelines (14 California Code of Regulations 15000 et seq.).

1. Introduction

Napa County (County), in cooperation with California Department of Transportation (Caltrans), proposes to replace the existing structurally deficient Chiles Pope Bridge (bridge) at Chiles Pope Valley Road in Napa County, California as part of the Highway Bridge Program (HBP) (see **Figure 1**. Regional Location). The bridge (Bridge No. 21C0075) is 2.1 miles north of State Route 128 (SR-128) and spans over Chiles Creek (see **Figure 2**. Project Location, **Figure 3**. Project Footprint, and **Figure 4**. Project Features).

2. Legal Authority and Findings

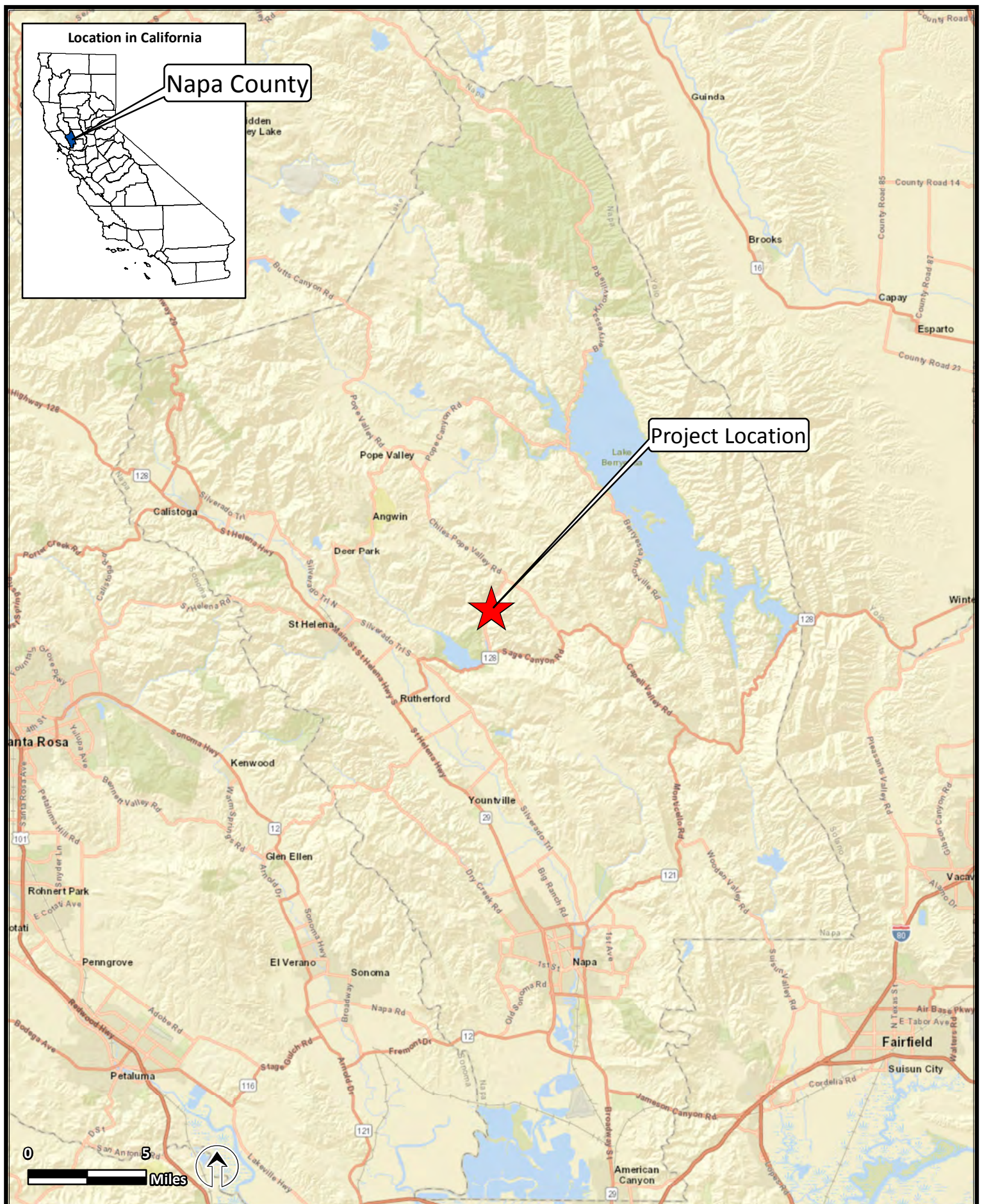
The County is the Lead Agency pursuant to CEQA. The County has prepared this IS in accordance with the Guidelines for the Implementation of CEQA (CEQA Guidelines) (California Code of Regulations [CCR], Title 14, Chapter 3, Sections 15000 et seq.). Although consultants assisted in the preparation of this IS, all analysis, conclusions, findings and determinations presented in the IS 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.

3. Intent and Scope of this Document

This IS/MND has been prepared in accordance with CEQA, under which the Chiles Pope Bridge Replacement Project constitutes a “project.” 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 to the following resources:

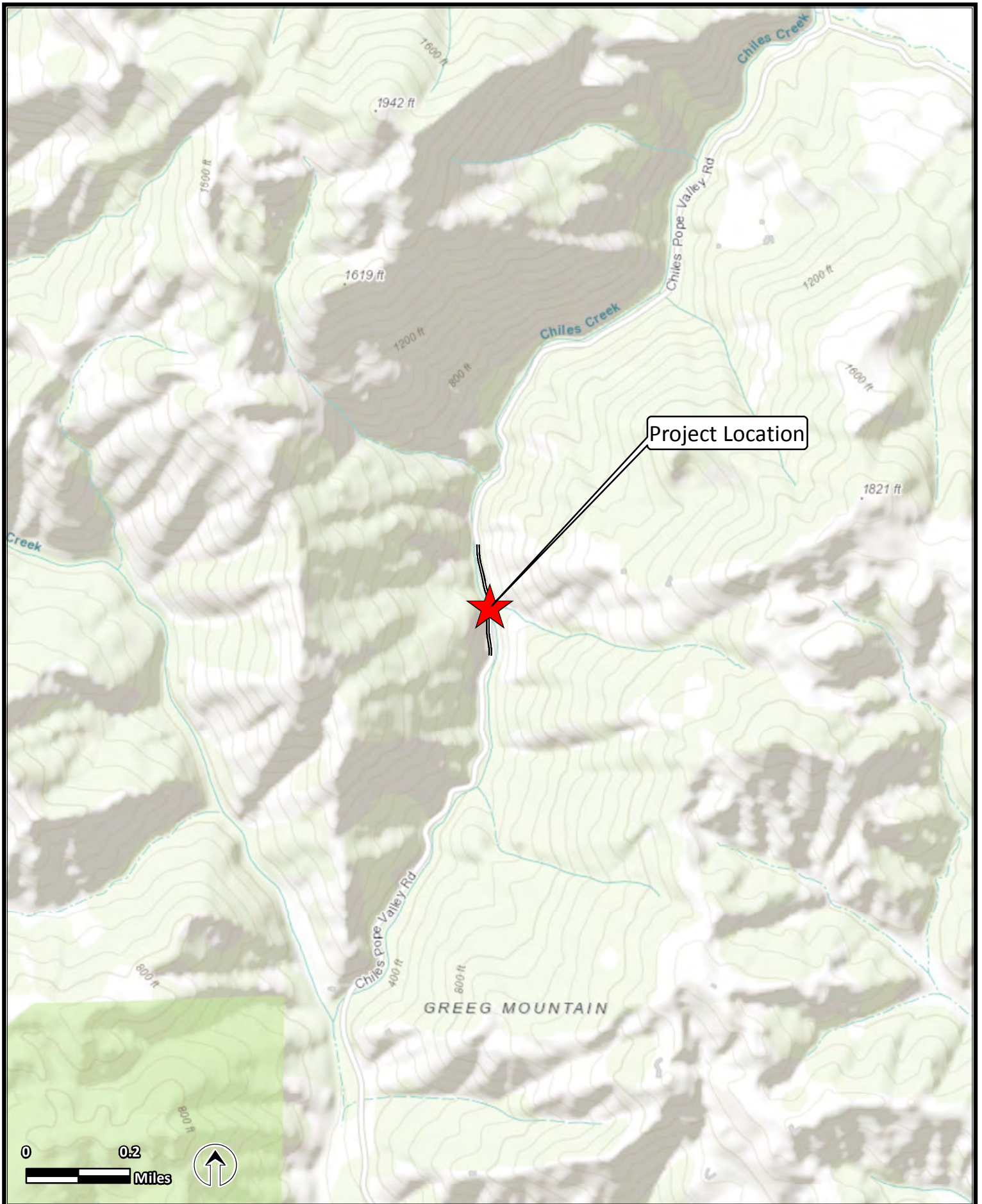
Aesthetics	Greenhouse Gas Emissions	Public Services
Agricultural and Forestry	Hazards and Hazardous	Recreation
Air Quality	Hydrology and Water	Transportation
Biological Resources	Land Use and Planning	Tribal Cultural Resources
Cultural Resources	Mineral Resources	Utilities and Service Systems
Energy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



Sources: ESRI 2018.



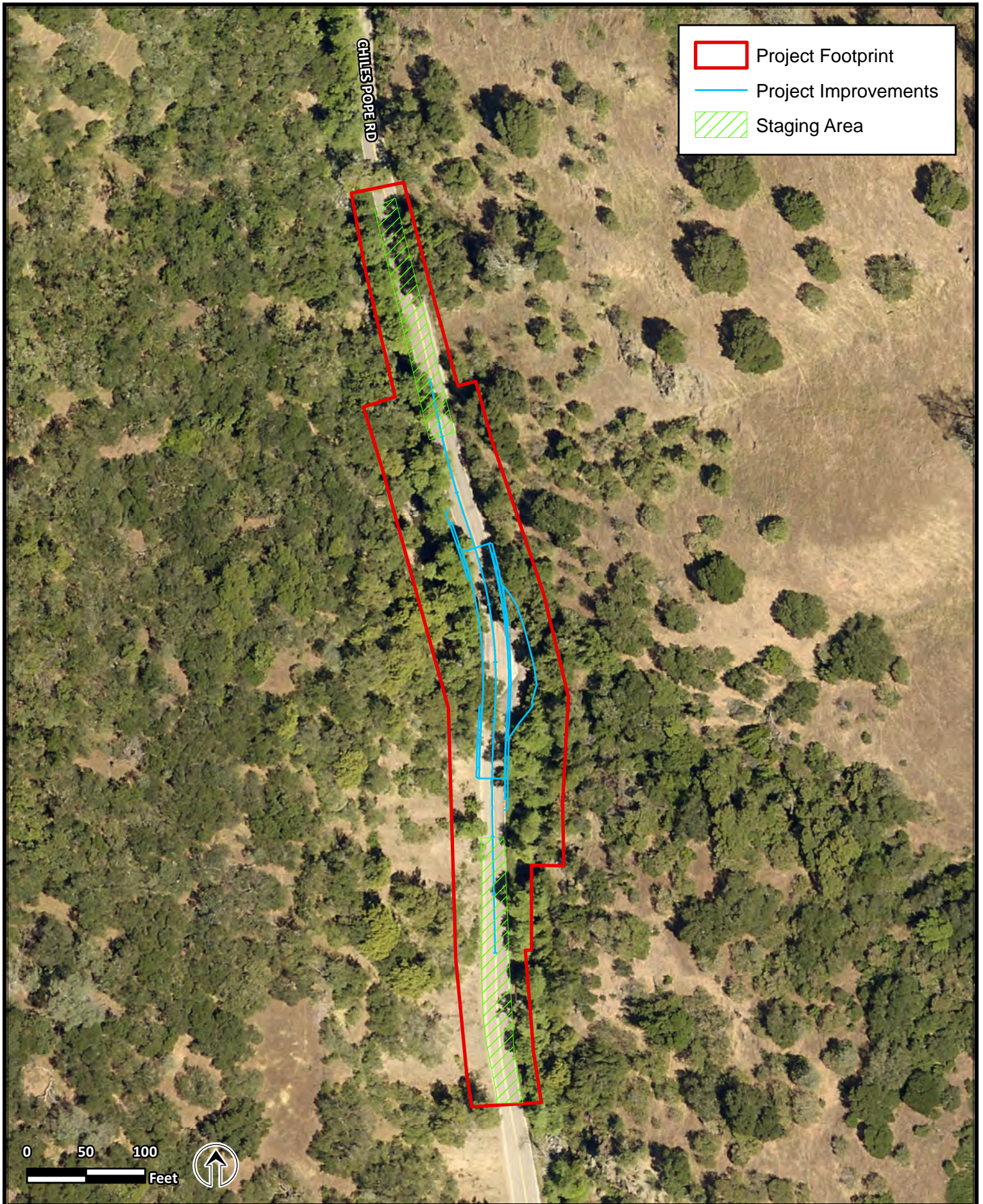
**FIGURE 1: REGIONAL LOCATION
Chiles-Pope Bridge Replacement Project**



Sources: ESRI 2018.



FIGURE 2: PROJECT LOCATION
Chiles-Pope Bridge Replacement Project



Sources: ESRI 2019.



FIGURE 3: PROJECT FOOTPRINT
Chiles-Pope Bridge Replacement Project

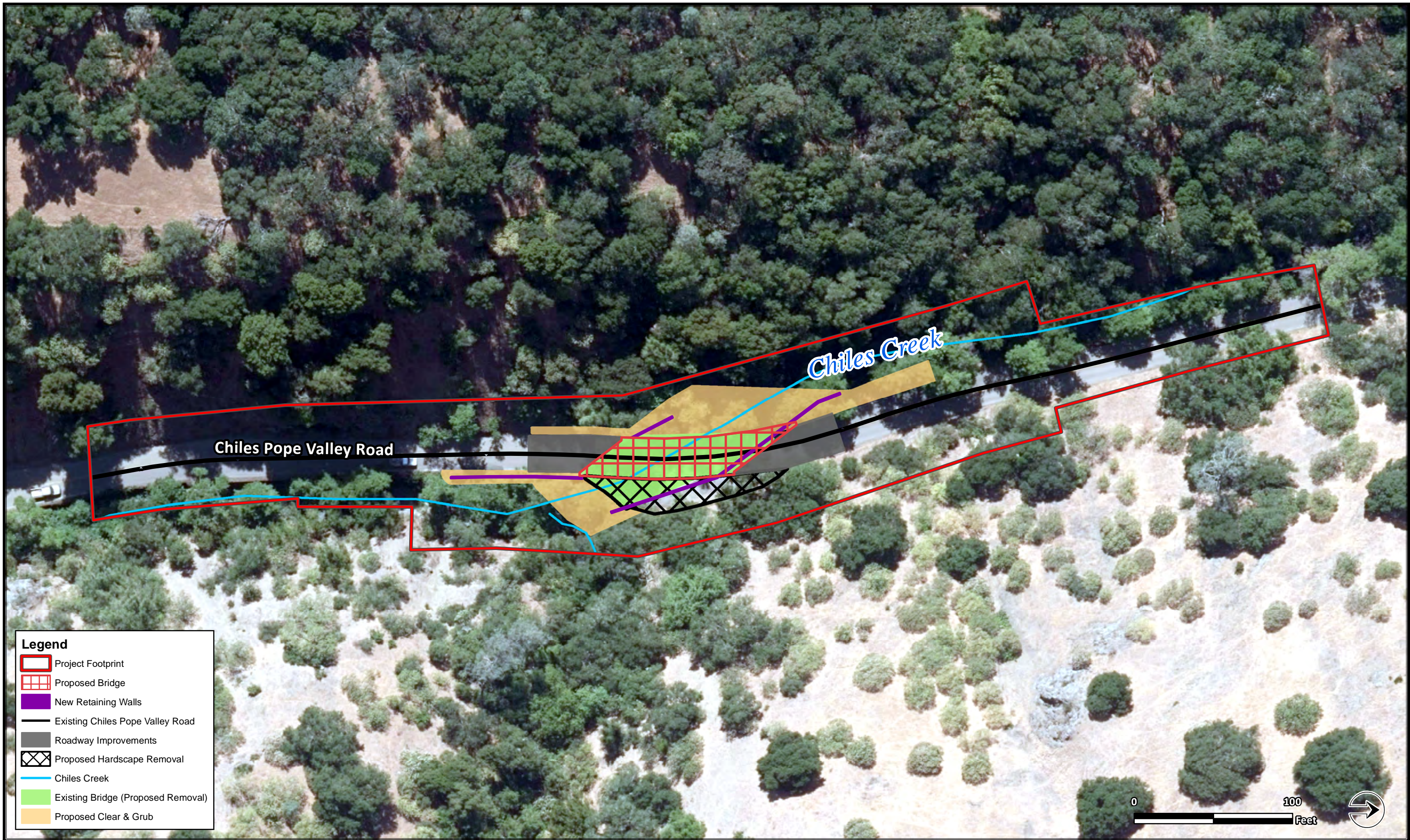


FIGURE 4. PROJECT FEATURES
Chiles Pope Valley Road Bridge Replacement Project

4. Organization of this Document

This IS/MND document contains the following elements:

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

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

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

Section III, Environmental Factors Potentially Affected: 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: provides the recommended environmental documentation for the project.

Section V, Evaluation of Environmental Impacts: 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: provides a list of key personnel involved in the preparation of this report and key personnel consulted.

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

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

5. 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 California Code of Regulations (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.

II. PROJECT DESCRIPTION

1. Project Title

Chiles Pope Bridge over Chiles Creek 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

James Reese, P.E.
707-259-8281
James.Reese@countyofnapa.org

5. Project Location

The Chiles Pope Bridge Replacement Project is located on Chiles Pope Valley Road, within a rural portion of Napa County, California. No residential properties are visible from the project area and the nearest residence is located approximately 1,800 feet east of Chiles Pope Valley Road and is not accessible from the project area.

The County does not have ROW at the existing approach roadway and within Chiles Creek. Project improvements could be completed within existing easements for maintaining Chiles Pope Valley Road and the existing bridge. Temporary construction easements (TCE) would be required for parcels APNs 025-440-002 (0.08 acre), 025-440-003 (0.09 acre), 025-440-004 (0.003 acre), and 025-440-047 (0.03 acre), located immediately west and east of the existing bridge structure, to construct the replacement bridge and retaining walls. A permanent roadway easement would be needed from APN 025-440-003 (0.01 acre). No permanent ROW acquisition is anticipated.

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 (Napa County, 2015; Napa County, 2016).

7. Project Description

Napa County (County), in cooperation with the California Department of Transportation (Caltrans), proposes to replace the existing structurally deficient Chiles Pope Bridge at Chiles Pope Valley Road (bridge) in Napa County, California as part of the Highway Bridge Program (HBP) (see **Figure 1**. Regional Location). The bridge (Bridge No. 21C0075) is 2.1 miles north of State Route 128 (SR-128) and spans over

Chiles Creek (see **Figure 2**. Project Location, **Figure 3**. Project Footprint, and **Figure 4**. Project Features). The bridge is upstream of Lake Hennessey and Conn Dam, which prevents anadromous fish from swimming up Chiles Creek.

The County is the Lead Agency pursuant to the California Environmental Quality Act (CEQA). Caltrans, under authority delegated by the Federal Highway Administration (FHWA), is the Lead Agency pursuant to the National Environmental Policy Act (NEPA).

Project History

The bridge was originally built in 1907 as a single span masonry arch. In 1950 the bridge was widened on the west side with three-span, reinforced concrete T-beam girders on two-column (Bent 2) and one-column (Bent 3) bents with reinforced concrete diaphragm abutments. The existing structure has been rated as structurally deficient.

The bridge is included in the Caltrans Historic Bridge Inventory of local bridges and is identified as a Category 5 bridge, which means that it is not eligible for listing under the National Register of Historic Places (NRHP).

Project Purpose

The purpose of the project is to provide a safe, functional, and reliable crossing over Chiles Creek on Chiles Pope Valley 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. Per the current Structure Inventory and Appraisal Report prepared for the bridge, the bridge qualifies for rehabilitation funding under the HBP because the bridge has a Sufficiency Rating of 54.9 and is flagged as Structurally Deficient. The following deficiencies have been observed:

- The deck has large transverse cracks and shallow spalls (i.e. chipped material from corrosion, weathering, etc.) with exposed rebar in the deck slab (top flange).
- Mortar weathering and deterioration of the original masonry arch construction.
- Spalls and delamination of the reinforced concrete columns.
- Two of the bent footings (Column 1-Bent 2 and Column 2-Bent 2) are exposed all around the footing up to a maximum depth of 1.5 feet and seem to be founded on erodible material. Rock and concrete protection at abutment one of the masonry arch is undermined 10 feet (length) by 1.5 feet (vertically) by 1.5 feet (horizontally).
- Bridge railing was missing top and bottom chords in some areas and was replaced with substandard members, based on National Cooperative Highway Research Program (NCHRP) Report 350, Recommended Procedures for the Safety Performance Evaluation of Highway Features, criteria.
- Bridge ends are not protected by a guardrail.

Existing Conditions

The bridge structure is 85 feet long and is comprised of two bridge types; the original single-span masonry

stone arch bridge, built in 1907, and the 3-span reinforced concrete T-beam widening built in 1950. The existing bridge carries two lanes of traffic (one lane in each direction) over Chiles Creek. The structure curb-to-curb width is approximately 25 feet.

The project area is largely undeveloped and rural with mountains framing the roadway on both sides. No residential properties are visible from the project area. Chiles Pope Valley Road provides access to several private roads that lead to residential properties. The closest residential property (APN 025-240-037) is accessible via a private driveway that branches off Chiles Pope Valley Road approximately one mile north of the project area.

Chiles Pope Valley Road is a major collector in the County road system and is a rural mountain road that runs along the bottom of Chiles Canyon adjacent to Chiles Creek. At the existing bridge location, the creek crosses from one side of the road to the other. Steep hillsides and vegetation run along the roadway on both sides, providing limited sight distances to and from the bridge.

Within the project area, Chiles Creek is a natural, un-lined waterway with medium to heavily vegetated steep-sloped banks. Several areas along the creek are lined with steep slopes and dense vegetation 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). There are several recreational areas along Chiles Pope Valley Road. Moore Creek Park, which is operated by Napa County Regional Park and Open Space District, is approximately one mile south of the project area. In addition, there are several fishing access points approximately two miles south of the project area. Chiles Pope Valley Road is a designated Class III Bike Route.

Proposed Project

The County proposes to replace the existing bridge structure on the existing alignment, maintaining the existing vertical profile. The proposed bridge structure would consist of an approximately 105-foot-long by 26-foot-wide two-span cast-in-place prestressed concrete slab bridge that is two feet in depth. Abutments 1 and 3 would consist of a seat-type abutment cap beam supported on soldier piles with ground anchors. The soldier pile walls would also retain soil behind Abutments 1 and 3. Bent 2 would consist of four 3-foot cast-in-place-drilled-hole (CIDH) shaft extensions. Driven piles would not be feasible because of the presence of rock. The new abutments would require excavation to a depth of approximately six feet below existing road surface.

The project site has steep ground slopes along and adjacent to the proposed bridge. To provide the ground stability and to retain the soil along the steep elevation differences, four new retaining walls would be constructed as follows:

- Retaining Wall 1 (RW1): Soldier pile wall downstream of Abutment 1 to accommodate a Midwest Guardrail System (MGS) on the northbound approach roadway
- Retaining Wall 2 (RW2): Soldier pile wall at Abutment 1 to alleviate potential erosion as the creek bends at the bridge location
- Retaining Wall 3 (RW3): Soldier pile wall downstream of Abutment 3 to alleviate potential erosion of

the canyon slope due to creek flow exiting past the bridge and hitting the canyon slope

- Retaining Wall 4 (RW4): Soldier pile wall upstream of Abutment alleviate potential erosion as the creek bends at the bridge location.

Pile installation for the retaining walls and abutments would be performed from the roadway and may be installed prior to removal of the existing bridge. With the exception of RW4, after the removal of the existing bridge and once the piles are in place, excavation and installation of wall and abutment facing would be constructed from within the creek. A temporary heavy equipment access road down into the creek would be created by grading of the roadway approach and the creek bank just upstream of the existing bridge. Construction of RW4 would be conducted at the location of the temporary access road after it is removed, and without the use of heavy equipment in the creek.

The new bridge would be longer than the existing bridge in order to widen the creek channel and eliminate the constriction posed by the existing bridge. In addition to removing the existing bridge, the project would remove portions of the existing roadway approach within the limits of the new bridge (at Abutments 1 and 3 and RW3). These existing approaches likely consist of a combination of previous fill and native material, which would be off-hauled and disposed of off-site. Vegetation adjacent to the existing road and existing bridge would require removal to accommodate project activities.

Masonry from the 1907 masonry arch section of the bridge will be saved for use to repair other masonry arch bridges in Napa County. The reinforced concrete from the 1950 section of the bridge will be disposed of as appropriate after demolition.

The roadway would be completely closed off to traffic for approximately nine months in order to construct the bridge superstructure in a single stage.

Standard Caltrans Type 85 concrete barriers would be utilized with tubular bicycle railing on each side of the proposed bridge deck. MGS would be utilized on both approaches at the edge of traveled way adjacent to the creek.

Utilities

There are no known utilities in the project area, and no utility relocations are anticipated.

Right of Way

The County does not have right of way (ROW) at the existing approach roadway and within the creek. The County currently has easements for maintaining Chiles Pope Valley Road and the existing bridge. The County is seeking opportunities to acquire the additional easements on which the bridge and roadway are to be constructed.

Anticipated Construction Schedule and Methods

Project construction is anticipated to take approximately nine months. However, if an accelerated schedule is approved it is possible the duration of project construction could take less than nine months. Full closure of Chiles Pope Valley Road to the public is anticipated for the full duration of construction in order to construct the bridge replacement in a single stage. During construction, access for fire and emergency vehicles would be provided, if needed, except for an anticipated period of four months when a complete closure of the bridge would be needed when the existing bridge has been removed. Once the

traffic control plans are finalized, the County will notify the Fire Department, Sheriff's Department, and local residents up to one year prior to the start of construction with road closure and traffic detour information. During construction, the contractor shall also notify the Fire Department, Sheriff's Department, and local residents of upcoming road closures and traffic detour plans prior to and during construction.

Traffic would be detoured via SR 128 and Lower Chiles Valley Road. The total length of detour would be 11.3 miles. For traffic traveling between the Chiles Pope Valley Road / Lower Chiles Valley Road intersection and SR 128 west, the detour would add 4.0 miles (about 8 minutes) to each trip.

Construction would require demolishing the existing bridge structure, including the entire masonry stone arch bridge. Retaining walls 1 thru 3, as well as Abutments 1 and 3 foundations and cap beams are anticipated to be constructed prior to the removal of the existing bridge. The construction of the retaining walls would be performed from within the creek and on the approach roadway. The bridge superstructure would be constructed in a single stage.

Pile installation for the retaining walls and abutments would be performed from the roadway and from the existing bridge. With the exception of RW4, after the removal of the existing bridge and once the piles are in place, installation of wall and abutment facing may be constructed from within the creek. A temporary stream diversion consisting of an upstream coffer dam and Corrugated Metal Pipe (CMP) or a High Density Poly Ethylene (HDPE) pipe to contain the water through the construction area are anticipated to be required during construction. A temporary heavy equipment access road down into the creek would be created by grading of the roadway approach and the creek bank just upstream of the existing bridge. Construction of RW4 would be conducted at the location of the temporary access road after it is removed, and without the use of heavy equipment in the creek.

Responsible and Trustee Agencies

Responsible Agencies: None

Trustee Agencies: California Department of Fish and Wildlife

III. Environmental Factors Potentially Affected

The environmental factors checked below would potentially be affected by this project, as indicated by the checklist on in Section V, Evaluation of Environmental Impacts.

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

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 site. 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

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 Section 21099, would the Project:				
a. Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The following discussion incorporates the results of the Visual Impacts Assessment Memorandum (April 2020) that was prepared for this project (GPA Consulting, 2020).

Regulatory Setting

Local Regulations

Napa County General Plan

The Napa County General Plan identifies aesthetics as an important factor contributing to the County's "community character," and includes goals and policies that directly influence proposed projects within the county. According to the General Plan's Community Character Element, Napa has maintained an aesthetically pleasing character for decades; and in cooperation with the County's incorporated cities and towns, has succeeded in retaining a rural, agriculture-based economy and prevented widespread urban development and sprawl. Additionally, Napa County is home to hundreds of miles of scenic driving corridors from which can be seen internationally distinguished vineyards and hundreds of architecturally unique wineries (Napa County, 2013).

In addition, the County has adopted a Viewshed Protection Ordinance that has been established to protect aesthetic quality for both visitors and residents. The General Plan's Community Character Element and Circulation Element outline the following goals and policies regarding aesthetics, views, and scenic roadways:

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 February 4, 2020 (Napa County, 2020). 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 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 of Napa. 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 central Napa County, approximately 6.5 miles east of the City of St. Helena and approximately 15 miles north of the City of Napa. The project area is largely undeveloped and rural with mountains framing the roadway on both sides. There are no residential properties located near the project area and the nearest residence is located approximately 1,800 feet east of Chiles Pope Valley Road and not accessible from the project area.

Chiles Pope Valley Road is a major collector in the County road system which consists of two 11-foot lanes with minimal shoulders and no medians. Chiles Pope Valley Road is a rural mountain road that runs along the bottom of Chiles Canyon adjacent to Chiles Creek with relatively steep canyon slopes framing both sides of the roadway and Chiles Creek at the canyon bottom. Steep hillsides and vegetation run along the roadway on both sides, providing limited sight distances to and from the bridge. At the existing bridge location, the creek crosses from one side of the road to the other. The creek is a natural, unlined waterway with medium to heavily vegetated steep-sloped banks. Several areas along the creek are lined with steep

slopes and dense vegetation making the creek inaccessible at these locations.

Scenic Highways

The County 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, SR-121, and SR-221 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 policies 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. Chiles Pope Valley road is identified as a scenic roadway under the Napa County General Plan's Community Character Element (Napa County, 2013).

Viewer Groups

Land on both sides of the project is 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 Chiles Pope Valley Road. These viewers may include persons who live or work in the area, tourists, or people traveling to nearby recreation destinations.

Discussion of Checklist Responses

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

Less Than Significant Impact. The project area is in a rural part of Napa County that is largely undeveloped. In the project area, relatively steep canyon slopes frame both sides of the roadway and Chiles Creek at the canyon bottom. Views from Chiles Pope Valley Road are predominately obstructed due to the steep, vegetated slopes framing the roadway; however, Chiles Creek and distant hills are visible from the project area. The project area and preliminary project plans indicate that the project would not result in substantial adverse impacts on the visual environment because the existing bridge would be replaced with a new bridge of similar design and on the same alignment and vertical profile.

During construction of the project, there could be temporary visual impacts associated with onsite storage of construction vehicles, equipment, and materials; however, these impacts would be temporary, and following construction, the area would largely be restored to pre-project conditions. Therefore, impacts on scenic vistas 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. Chiles Pope Valley Road has been identified as a scenic roadway subject to the viewshed protection program in the 2008 Napa County General Plan. 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, big-leaf maple, 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 stabilized with a weed-free seed mixture.

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 Chiles Pope Valley 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 does not contain commercial or residential buildings, and the nearest residence is located approximately 1,800 feet east of the Chiles Pope Valley Road, and not accessible from the project area.

The project would replace the existing bridge with a new bridge of similar design, on the same alignment and vertical profile. The proposed bridge would be approximately 20 feet longer and one foot wider than the existing bridge, resulting in a slightly wider creek channel than existing conditions under the bridge structure. However, the replacement bridge would have a smaller permanent footprint than the existing bridge due to the removal of existing roadway elements, such as adjacent paving.

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; and four new retaining walls to provide ground stability and retain soil along the steep slopes adjacent to the proposed bridge. However, the retaining walls would be constructed to contour the adjacent slope, and the proposed barriers, guardrails, and retaining walls would not extend above the existing vertical elements; thus, views of the surrounding areas would not be blocked or distorted.

During construction of the project, staging and storage areas for vehicles, equipment, material, fuels, lubricants, and solvents would be restricted to designated areas located on the existing roadway. The staging area would be located on existing paved surfaces outside the limits of Chiles 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. New Sources of Light or Glare

Less Than Significant Impact. The existing sources of lighting in the project area are primarily associated with roadway vehicles traveling through Chiles Pope Valley Road. The nearest residence to the project is approximately 1,800 feet away, and not accessible from the project area. The new bridge would be similar to existing infrastructure in the area and would not include any lighting or materials that could cause glare. Additionally, the project would not include any permanent facilities that would require new or modified sources of light that would 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, during the nine-month construction period, Chiles Pope Valley Road would be closed to through traffic; thus, 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

None. The project would not require Avoidance, Minimization, and/or Mitigation Measures for 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 compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment project; and 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code (PRC) section 12220(g)), timberland (as defined by PRC 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

The Napa County General Plan's Agriculture Preservation and Land Use Element outlines the following goals and policies regarding agricultural and forestry resources (Napa County, 2013):

- **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. Chiles Pope Valley Road is a rural mountain road that runs along the bottom of Chiles Canyon adjacent to Chiles Creek with relatively steep canyon slopes framing both sides of the roadway and Chiles Creek at the canyon bottom. The relatively steep canyon slopes and vegetation along the roadway provides limited sight distance for vehicles traveling to and from the bridge.

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 nearest agricultural use, which is associated with APN 025-240-006, includes a vineyard and an accessory structure located approximately 0.2 mile east of the project area.

According to the 2016 Napa County Important Farmland Map, the most recent map issued by the California Department of Conservation (CDOC) for the County, parcels in and adjacent to the project area are designated as “Grazing Land” (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 Chiles Creek. Project improvements could be completed within existing easements for maintaining Chiles Pope Valley Road and the existing bridge. Temporary construction easements (TCE) would be required for parcels APNs 025-440-002 (0.08 acre), 025-440-003 (0.09 acre), 025-440-004 (0.003 acre), and 025-440-047 (0.03 acre), located immediately west and east of the existing bridge structure, to construct the replacement bridge and retaining walls. A permanent roadway easement would be needed from APN 025-440-003 (0.01 acre). No permanent ROW acquisition is anticipated. As stated above, the parcels in and adjacent to the project area are designated as Grazing Land (California Department of Conservation, 2017). According

to the CDOC, the project area is not located within or adjacent to any land designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (California Department of Conservation, 2017). Therefore, there would be no impact from conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

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

No Impact. Construction of the project would require a permanent roadway easement from APN 025-440-003 (0.01 acre), located immediately east of the existing bridge structure, which is designated as Grazing Land (California Department of Conservation, 2017). However, no permanent ROW acquisition is anticipated. According to the CDOC, none of the parcels within and adjacent to the project area are subject to protection under the Williamson Act. TCEs would include “sliver” portions of the steep hillsides adjacent to the existing transportation corridor where no grazing or other agricultural uses occur. No residences, vineyards, or accessory structures would be affected. Although it does not appear that any of the parcels from which TCEs would be needed are currently being farmed, all remaining land on the properties would remain available for agricultural uses and it is anticipated that future farming activities on agricultural parcels would be unaffected by the proposed “sliver” acquisitions. In addition, no indirect impacts on farmlands or farming activities, such as permanent changes in irrigation supplies or property access would result from the project. Therefore, there would be no project impacts to existing zoning for agriculture use, or Williamson Act properties.

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 44 miles north of the project area, and the El Dorado National Forest, located approximately 90 miles west of the project area (United States Forest Service, 2019). According to the California Department of Fish and Wildlife’s Timberland Conservation Program, the project area is surrounded by land designated as private timberland (California Department of Fish and Wildlife, 2015). Although construction of the project would require ROW from private parcels surrounding the project area, the purpose of the project is to replace a structurally deficient bridge along Chiles Pope Valley 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 considered 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 forest lands are the Mendocino National Forest, located approximately 44 miles north of the project area, and the El Dorado National Forest, located approximately 90 miles west 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 above, the project would not 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.

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

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 (O₃), particulate matter equal to or smaller than 10 microns (PM₁₀) or 2.5 microns (PM_{2.5}) in diameter, sulfur dioxide (SO₂), nitrogen dioxide (NO₂), and lead (Pb).

State Regulations

California Clean Air Act

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

The Federal Clean Air Act (FCAA) requires the U.S. Environmental Protection Agency (EPA) to establish NAAQS for criteria pollutants, which are ozone (O₃), coarse particulate matter less than 10 microns in diameter (PM₁₀), fine particulate matter less than 2.5 microns in diameter (PM_{2.5}), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and lead (Pb). Under the California Clean Air Act (CCAA), the CARB requires that each local air district prepare and maintain an air quality management plan 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 air quality management plan (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 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/m³)	N ⁹	0.070 ppm Primary same as secondary	N ⁴
	1 Hour	0.09 ppm (180 µg/m³)	N		See Note #5
Carbon Monoxide	8 Hour	9.0 ppm (10 mg/m³)	A	9 ppm (10 mg/m³)	A ⁶
	1 Hour	20 ppm (23 mg/m³)	A	35 ppm (40 mg/m³)	A
Nitrogen Dioxide	1 Hour	0.18 ppm (339 µg/m³)	A	0.100 ppm <i>See Note #11</i>	See Footnote #11
	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)		0.053 ppm (100 µg/m³)	A
Sulfur Dioxide See Note #12	24 Hour	0.04 ppm (105 µg/m³)	A	0.14 ppm (365 µg/m³)	See Footnote #12
	1 Hour	0.25 ppm (655 µg/m³)	A	0.075 ppm (196 µg/m³)	See Footnote #12
	Annual Arithmetic Mean			0.030 ppm (80 µg/m³)	See Footnote #12
Particulate Matter (PM10)	Annual Arithmetic Mean	20 µg/m³	N ⁷		
	24 Hour	50 µg/m³	N	150 µg/m³	U
Particulate Matter - Fine (PM2.5)	Annual Arithmetic Mean	12 µg/m³	N ⁷	12 µg/m³ See Note #15	U/A
	24 Hour			35 µg/m³ See Note #10	N
Sulfates	24 Hour	25 µg/m³	A		
Lead See Note #13	30-day Average	1.5 µg/m³		-	A
	Calendar Quarter	-		1.5 µg/m³	A
	Rolling 3 Month Average ¹⁴	-		0.15 µg/m³	See Note #14
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m³)	U		
Vinyl Chloride (chloroethene)	24 Hour	0.010 ppm (26 µg/m³)	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/m³=milligrams per cubic meter		ppm=parts per million		µg/m³=micrograms per cubic meter	
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 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 0.100ppm (effective January 22, 2010). The US Environmental Protection Agency (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 National Ambient Air Quality Standards (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.

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

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 California Air Resources Board (CARB) was created by the legislature in 1967, and the CAAQS that had been set by the Department of

Public Health were subsequently adopted by the CARB in 1969. Thus, the CAAQS predate the NAAQS set by U.S. EPA. California law continues to mandate CAAQS, although attainment of the NAAQS has precedence over attainment of the CAAQS due to federal penalties for failure to meet federal attainment deadlines. California law continues to mandate California ambient air quality standards (CAAQS), which are often more stringent than national standards (California Air Resources Board, 2017).

California State Implementation Plan

The 1990 amendments to 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 eight-hour ozone standard and the fine particulate matter (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

The Bay Area Air Quality Management District (BAAQMD) adopted the Bay Area Clean Air Plan (Bay Area CAP) in 2010 to provide a plan to improve Bay Area air quality and meet public health goals. More specifically, the control strategy described in the Bay Area CAP is designed to reduce emissions and decrease ambient concentrations of harmful pollutants and safeguard public health by reducing exposure to air pollutants that pose the greatest health risk.

The Bay Area CAP addresses four categories of pollutants: (1) ground level ozone and its key precursors, reactive organic gases (ROG) and nitrogen oxides (NOx); (2) particulate matter, primarily particulate matter less than 2.5 microns in diameter (PM_{2.5}), as well as precursors to secondary PM_{2.5}; (3) air toxics; and (4) greenhouse gases (GHGs). The control strategy in the Bay Area CAP describes stationary source measures, transportation control measures, mobile source measures, land use and local impact measures, energy and climate measures, and further study measures to reduce air pollutants (BAAQMD 2012a). The BAAQMD is currently planning to prepare an update to the Bay Area CAP.

To fulfill federal air quality planning requirements, the Air District's Board of Directors adopted a PM_{2.5} emissions inventory for year 2010 at a public hearing on November 7, 2012. The Air District transmitted the inventory to the California Air Resources Board (CARB) for inclusion in the California State Implementation Plan (SIP). The PM report will help to guide the Air District's on-going efforts to analyze and reduce PM in the Bay Area in order to better protect public health (BAAQMD 2013b).

BAAQMD adopted the Bay Area Ozone Attainment Plan in 2001 in response to EPA's finding of failure of the Bay Area to attain the national ambient air quality standard for ozone. The Plan includes a control strategy for ozone and its precursors to ensure reduction in emissions from stationary sources, mobile sources, and the transportation sector (BAAQMD 2001).

The BAAQMD Bay Area 2005 Ozone Strategy charts a course for future actions to further reduce ozone levels in the Bay Area. The control strategy outlines a set of control measures to further reduce ozone precursor emissions in order to reduce ozone levels in the Bay Area and to reduce transport of pollution to downwind regions. The control strategy includes stationary source measures, mobile source measures, and transportation control measures (BAAQMD 2012b).

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 receptors to substantial pollutant concentrations, and create objectionable odors. The thresholds were originally published in 1999. In 2010, BAAQMD adopted updated thresholds in particular for lowered ozone precursors (NO_x and ROG) and PM_{2.5} specifically for construction and operation projects as well as thresholds for risk and hazards to sensitive receptors (BAAQMD 2010a). At this time, due to pending lawsuits, BAAQMD has yet to recommend use of these thresholds. However, these thresholds are based on substantial evidence and are used for this analysis. 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 (PM ₁₀)	82	82	15
Particulate Matter (PM _{2.5})	54	54	10
PM ₁₀ /PM _{2.5} (fugitive dust)	Best Management Practices	None	
Local Carbon Monoxide (CO)	None	9.0 ppm (8-hour average), 20.0 ppm (1-hour average)	
Risk and Hazards for new sources and receptors (Individual Project)	Same as Operational Thresholds	Compliance with Qualified Community Risk Reduction Plan OR <ul style="list-style-type: none">Increased cancer risk of >10.0 in a millionIncreased non-cancer risk of > 1.0 Hazard Index (Chronic or Acute)Ambient PM_{2.5} increase: > 0.3 µg/m³ annual average <u>Zone of Influence:</u> 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 <ul style="list-style-type: none">Cancer risk: >100 million (from all local sources)Non-cancer risk: > 10.0 Hazard Index (from all local sources, Chronic)Ambient PM_{2.5}: > 0.8 µg/m³ annual average (from all local sources) <u>Zone of Influence:</u> 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	Screening level distances and complaint history	

tpy – tons per year; lb./day – pounds per day; ppm – parts per million

Source: BAAQMD 2010a

The Napa County 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 (Napa County Department of

Conservation, Development and Planning, 2008).

- **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.
 - a. New sources of toxic air contaminants or odors proposed near residences or sensitive receptors within screening distances recommended by the California Air Resources Board (CARB) or BAAQMD shall be evaluated and adequate buffers or filters or other equipment shall be provided.
 - b. New residences or other sensitive receptors proposed near sources of toxic air contaminants or odors within screening distances recommended by CARB or BAAQMD shall be evaluated and adequate buffers shall be established or mitigations such as filters or other equipment shall be required.

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 ozone 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 carbon monoxide (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. Napa 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 project is located in central Napa County, approximately 6.5 miles east of the City of St. Helena and approximately 15 miles north of the City of Napa. The project area is largely undeveloped and rural with mountains framing the roadway on both sides. There are no residential properties located near the project area and the nearest residence is located approximately 1,800 feet east of Chiles Pope Valley Road and

not accessible from the project area.

Discussion of Checklist Responses

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

No Impact. Operation of the new bridge would not include an additional number of through lanes along Chiles Pope Valley Road; thus, the project would not increase traffic through the project area, and traffic conditions during project operation would be similar to existing traffic conditions. 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.

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. Project improvements include the replacement of a structurally deficient bridge along Chiles Pope Valley Road. Napa County is not a non-attainment or maintenance area for any criteria pollutants. Operation of the project would not result in a net increase of any criteria pollutants in or near the project area. However, project construction would result in temporary emissions of CO, NOX, ROG, PM2.5, and PM10 during construction. 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. 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.

The nearest sensitive receptors are located approximately 1,800 feet east of Chiles Pope Valley Road and not accessible from the project area, and would not be affected by construction or operation of the project; 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. Some examples of sources are gasoline and diesel engine exhausts, paint spraying, and street paving. During construction, the project could result in potential odors from exhaust emissions from construction equipment used on the construction site, as well as the vehicles used to transport materials to and from the site, and from

the motor vehicles of the construction crew. These exhaust emissions include Volatile Organic Compounds (VOCs), Carbon monoxide (CO), Ozone (O₃), Nitrogen Dioxide (NO₂), 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Have a substantial adverse effect on state or federally protected wetlands (including but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Conflict with the provisions of an adopted Habitat Conservation Plan (HCP); Natural Community Conservation Plan; or other approved local, regional, or state HCP?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

Regulatory Setting

Clean Water Act

The United States Army Corps of Engineers (USACE) regulates the placement of dredged and fill material into waters of the United States (U.S.), including wetlands, under Section 404 of the Clean Water Act (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 Regional Water Quality Control Board (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 Code of Federal Regulations (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).

In 2015, the USACE and United States Environmental Protection Agency (U.S. EPA) published the Clean Water Rule, which more clearly defined waters of the U.S. The intent of the rule was to make the definition of waters of the U.S. easier to understand, more predictable, and more consistent with current science, while better protecting waters of the U.S. The rule went into effect on August 28, 2015; however, on October 9, 2015, the U.S. Court of Appeals for the Sixth Circuit stayed the Clean Water Rule nationwide pending further action of the court. In response, the USACE and U.S. EPA resumed using the prior regulations defining waters of the U.S. This report uses the current definition of waters of the U.S., provided above.

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)).

Currently, the RWQCB relies upon the definition used in the CWA to define wetlands. However, the State Water Resources Control Board (SWRCB) is in the process of redefining wetlands as part of their proposed Procedures for Discharges of Dredged or Fill Material to Waters of the State (SWRCB, 2017). The new definition, which is currently not adopted, 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 December 2013 (United States Fish and Wildlife Service, 2013). In accordance with the Migratory Bird Treaty Reform Act of 2004 the United States Fish and Wildlife Service (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 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 California Department of Fish and Wildlife (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 California Code of Regulations (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 (SAA) 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" (Cowardin et al., 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 Municipal Code

The Napa County Municipal Code 16.04.750 Riparian Zones-Restricted Activities 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 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). Because the project is a public works project, Napa County has determined that the project is exempt from Napa County Municipal Code 16.04.750.

The Napa County Municipal Code Section 18.108.027 Sensitive Domestic Water Supply Drainages identifies limitations on vegetation clearing, timing of earth-disturbing activities, and concentrated runoff, and requires notification to owner/operator(s) of public-serving water supply system(s) and preparation of geotechnical reports for actions undertaken in sensitive domestic water supply drainages. Chiles Creek is tributary to Lake Hennessey and is, therefore, considered a sensitive domestic water supply drainage. Because the project would conduct activities in Chiles Creek, the project is subject to the provisions of Napa County Municipal Code 18.108.027.

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, 2013).
- 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, 2013).
- 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, Public Resources Code 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 Napa County General Plan Action Item CON NR-7 (Voluntary Oak Woodlands Management Plan), which implements Policy CON-24 (Napa County, 2013).

Oak Woodlands Preservation Act

The Oak Woodlands Preservation Act (California Code, Public Resources Code 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) includes areas that could be directly impacted by the project, either temporarily or permanently. Land within the BSA consists of Chiles Pope Valley Road, Chiles Pope Bridge, Chiles Creek, and natural vegetation communities. According to the County, the land use surrounding the project area is designated for Agriculture, Watershed, and Open Space use (Napa County, 2016). Vegetation communities classified within the BSA include *Alnus Rhombifolia* Forest Alliance (White Alder Groves) and *Quercus* Forest Alliance (Mixed Oak Forest).

Special-Status Species

Plants

According to the California Natural Diversity Database (CNDDDB) and USFWS searches, 71 special-status plant species have the potential to be in the BSA based on recorded geographical distribution. Based on habitat requirements and survey results, the following 16 special-status plant species have potential to be in the BSA: Napa false indigo (*Amorpha californica* var. *napensis*), bent-flowered fiddleneck (*Amsinckia lunaris*), Brewer's milk-vetch (*Astragalus breweri*), Jepson's milk-vetch (*Astragalus rattanii* var. *jepsonianus*), Brewer's clarkia (*Clarkia breweri*), mountain lady's-slipper (*Cypripedium montanum*), streamside daisy (*Erigeron biolettii*), northern California black walnut (*Juglans hindsii*), Colusa layia (*Layia septentrionalis*), broad-lobed leptosiphon (*Leptosiphon latisectus*), bristly leptosiphon (*Leptosiphon acicularis*), Cobb Mountain lupine (*Lupinus sericatus*), Mt. Diablo cottonweed (*Micropus amphibolus*), marsh checkerbloom (*Sidalcea oregana* ssp. *hydrophila*), Napa bluecurls (*Trichostema ruygtii*), and dark-mouthed triteleia (*Triteleia lugens*). 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 CNDDDB, National Marine Fisheries Service (NMFS), and USFWS searches, 47 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 23 special-status wildlife species have potential to be in the BSA: California giant salamander (*Dicamptodon ensatus*), foothill yellow-legged frog

(*Rana boylei*), California red-legged frog (*Rana draytonii*), great egret (*Ardea alba*), great blue heron (*Ardea Herodias*), yellow-breasted chat (*Icteria virens*), black-crowned night heron (*Nycticorax nycticorax*), purple martin (*Progne subis*), yellow warbler (*Setophaga petechia*), 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 blossevillei*), hoary bat (*Lasiurus cinereus*), western small-footed myotis (*Myotis ciliolabrum*), long-eared myotis (*Myotis evotis*), fringed myotis (*Myotis thysanodes*), long-legged myotis (*Myotis volans*), yuma myotis (*Myotis yumanensis*), California floater (*Anodonta californiensis*), western ridged mussel (*Gonidea angulata*), and western pond turtle (*Actinemys marmorata*). The California red-legged frog is 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 CNDDDB search, a total of three special-status natural communities have the potential to be in the BSA based on geographical location, including the Northern Vernal Pool, Serpentine Bunchgrass, and Wildflower Field communities. Based on the field surveys, there are no special-status natural communities identified by the CNDDDB 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 the RWQCB. In addition, the Napa County General Plan has policies directing the County 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 wetlands under jurisdiction of the USACE based on the presence of hydrophytic vegetation, hydrology, and/or hydric soils wetlands parameters. Approximately 0.04 acre of wetlands, that appear to meet the USACE wetland criteria, and approximately 0.15 acre of non-wetland waters, that appear to meet the USACE "significant nexus" criteria, were delineated within the BSA and are under jurisdiction of the USACE.

The BSA was evaluated for waters under jurisdiction of the RWQCB by delineating the OHWM of the existing waterway. There was surface water in Chiles Creek during biological surveys; therefore, it is expected to fall under RWQCB jurisdiction. In addition, the BSA was evaluated for wetlands under jurisdiction of the RWQCB based on the presence of hydrophytic vegetation, hydrology, and/or hydric soils wetlands parameters. Approximately 0.04 acre of wetlands and approximately 0.15 acre of non-wetland waters under the jurisdiction of the RWQCB were 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 are White Alder Groves, considered a riparian community, on the banks adjacent to Chiles Creek. Within the BSA, Chiles Creek has a defined bed and bank and supports vegetation; therefore, Chiles Creek and the adjacent riparian vegetation up to the edge of pavement along the Chiles Pope Valley Road are expected to fall under CDFW jurisdiction. Approximately 0.42 acre under jurisdiction of the CDFW was delineated within the BSA including the bed, bank, and channel of Chiles Creek, and White Alder Groves.

Habitat Connectivity

The Napa County General Plan classifies the land surrounding the BSA as Agriculture, Watershed, and Open Space. According to the CDFW's Biogeographic Information and Observation System (BIOS), the project area is within an essential habitat connectivity area and is approximately 0.73 mile from a natural

landscape block. Because the BSA is within an essential habitat connectivity area, it likely serves as a migration or travel corridor through the region.

Habitat in the BSA is minimally disturbed. Many of the animal species observed during surveys included those commonly found in woodland areas, such as the common raven (*Corvus corax*), Stellar's jay (*Cyanocitta stelleri*), black phoebe (*Sayornis nigricans*), and bats. Presumed black phoebe nests were observed on the existing bridge. Several bats were observed roosting on a small, wooden recess underneath the existing bridge structure, and within the open beam structures. A large number of bats were also observed night roosting under the bridge. The vegetation communities and creek provide suitable habitat to support nesting birds, roosting bats, foraging mammals, 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 Biogeographic Information and Observation System (BIOS) (California Department of Fish and Wildlife, 2018);
- CDFW CNDDDB for the Brooks, Aetna Springs, Capell Valley, Chiles Valley, Lake Berryessa, Rutherford, St. Helena, Walter Springs, and Yountville 7.5-minute series topographic quadrangles (California Department of Fish and Wildlife, 2018);
- NMFS West Coast Region California Species List (National Marine Fisheries Service, 2018);
- NMFS Essential Fish Habitat (EFH) mapper (National Marine Fisheries Service, 2018); and
- USFWS Information for Planning and Consultation Database (IPaC) (United States Fish and Wildlife Service, 2018).

Plants

Based on habitat requirements and survey results, the following 16 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 (CNPS) 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 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 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.

Brewer's Milk-Vetch

The Brewer's milk-vetch is considered a CDFW state rank S3 and CNPS 4.2 species (Plants of limited distribution and moderately threatened in California). This species is an annual herb found in chaparral, cismontane woodland, meadows, seeps, and valley and foothill grassland. The Brewer's milk-vetch is often found on volcanic or serpentine soils. This species is typically found at elevations between zero and 3,117 feet and the typical blooming period is from April to June (California Native Plant Society, 2018) (Jepson Herbarium, 2018). There is suitable woodland habitat in the BSA; 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.

Jepson's Milk-Vetch

The Jepson's milk-vetch is considered a CDFW state rank S3 and CNPS 1B.2 species. This species is an annual herb found in chaparral, cismontane woodland, and valley and foothill grassland, and is often found on serpentinite soils. The Jepson's milk-vetch species is typically found at elevations between 492 and 3,412 feet and the typical blooming period is from March to June (California Native Plant Society, 2018) (Jepson Herbarium, 2018). There is suitable woodland habitat in the BSA; 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.

Brewer's Clarkia

The Brewer's clarkia is considered a CDFW state rank S2 and CNPS 4.2 species. This species is an annual herb found in chaparral, cismontane woodland, and coastal scrub and is often found on serpentine soils. The Brewer's clarkia is typically found at elevations between zero and 4,429 feet and the typical blooming period is from April to June (California Native Plant Society, 2018) (Jepson Herbarium, 2018). There is suitable forest and woodland habitat in the BSA; 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.

Mountain Lady's-Slipper

The mountain lady's-slipper is considered a CDFW state rank S4 (Apparently Secure - uncommon but not rare; some cause for long-term concern due to declines or other factors) and CNPS 4.2 species. This species is a perennial rhizomatous herb found in broadleaved upland forest, cismontane woodland, lower montane coniferous forest, and north coast coniferous forest. This species will grow in moist areas and dry slopes. The mountain lady's-slipper is typically found at elevations between 607 to 7,300 feet above msl and the typical blooming period is from March to August (California Native Plant Society, 2018) (Jepson Herbarium, 2018). There is suitable woodland and dry slope habitat in the BSA for the mountain lady's-slipper. 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 a 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.

Northern California Black Walnut

The northern California black walnut 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) and CNPS 1B.1 species (Plant species that are rare, threatened, or endangered in California and elsewhere and seriously threatened in California). 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. 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.

Colusa Layia

The Colusa layia is considered a state rank S2 and CNPS 1B.2 species. This species is an annual herb found in chaparral, cismontane woodland, and valley and foothill grassland. Colonies of this species are found scattered in fields and grassy slopes in sandy or serpentine soils. This species is typically found at elevations between 49 to 3,609 feet above msl and typically blooms from April to May (California Native Plant Society, 2018) (Jepson Herbarium, 2018). There is suitable woodland habitat in the BSA; 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. In addition, there is a documented observation within the BSA on April 20, 2008 (CNDDDB Occurrence No.34), near the bridge on the road bank.

Broad-Lobed Leptosiphon

The broad-lobed leptosiphon is a CDFW state rank S4 and CNPS 4.3 species (Plants of limited distribution and not very threatened in California). This species is an annual herb found in broadleaved upland forest and cismontane woodland habitat and is often found on open, or partially shaded, grassy slopes. The broad-lobed leptosiphon is typically found at elevations from zero to 4,921 feet above msl and typically blooms from April to June (California Native Plant Society, 2018) (Jepson Herbarium, 2018). There are suitable grassy slopes and woodland habitat in the BSA; 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.

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 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.

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 and 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 open woodland 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.

Mt. Diablo Cottonweed

The Mt. Diablo cottonweed is considered a state rank S3S4 and CNPS 3.2 species (plants about which we need more information and moderately threatened in California). This species is an annual herb found in broadleaved upland forest, chaparral, cismontane woodland, and valley and foothill grassland. This species is found on bare, grassy, or rocky slopes with serpentine soils, sedimentary, or volcanic substrates. This species is typically found at elevations between 147 to 2,707 feet above msl and typically blooms from March to May (California Native Plant Society, 2018) (Jepson Herbarium, 2018). There is suitable woodland and forest habitat with rocky sedimentary slopes in the BSA for Mt. Diablo cottonweed. 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 Checkerbloom

The marsh checkerbloom is considered a CDFW state rank S2 and CNPS 1B.2 species. This species is a perennial herb found in meadows, seeps, and riparian forest habitat and is often found on wet soils of streambanks or wet meadows. The marsh checkerbloom is typically found at elevations between 1,444 to 7,546 feet above msl and typically blooms from July to August (California Native Plant Society, 2018)

(Jepson Herbarium, 2018). There is suitable streambank and riparian forest in the BSA; therefore, although this species was not observed during the biological surveys, which were conducted during the typical blooming period for this species, there is potential for this species 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 open areas of chaparral, cismontane woodland, lower montane coniferous forest, vernal pools, and valley and foothill grassland. This species often grows in thin clay soils and typically grows 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 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 Tritelleia

The dark-mouthed tritelleia 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 tritelleia 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 tritelleia. 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.

Impacts

Demolition of the existing bridge over Chiles Creek, replacing the existing bridge with a new bridge structure, and construction of retaining walls could result in temporary and permanent impacts on special-status plant species, should they be in the construction area during construction. Removal or trampling of vegetation could result in direct impacts on special-status plant species. Permanent vegetation removal would be required to accommodate the new retaining walls, which could result in direct impacts on special-status plant species, should they be in the construction area. However, the replacement bridge has a smaller permanent footprint than the existing bridge; therefore, permanent impacts on vegetation would be partially offset by the concurrent removal of the existing bridge and roadway elements, including adjacent paving. 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.

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

Wildlife

Based on habitat requirements and survey results, the following 23 special-status wildlife species have potential to be in the BSA and could be impacted by the project. Of the 23 special-status species, the California red-legged frog is 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.

A foothill yellow-legged frog was observed within Chiles Creek during biological surveys conducted for the project on February 13, 2018. The sighting was confirmed by foothill yellow-legged frog specialists Ryan Peek, PhD Candidate, at University of California, Davis and Dr. Sarah Kupferberg at Questa Engineering, Water Resources (Personal communication, 2018). In addition, there is suitable woodland and riparian habitat in the BSA. For the purposes of the biological resources evaluation completed for the project and this Initial Study, presence of the foothill yellow-legged frog in the BSA is inferred.

California Red-Legged Frog

The California red-legged frog is federally listed as threatened under FESA and is considered an 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. Eggs are often attached to emergent vegetation. This species requires 11 to 20 weeks of permanent water for larval development. 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 (United States Fish and Wildlife Service, 2002) (United States Fish and Wildlife Service, 2017).

The California red-legged frog has been observed within 10 miles of the BSA, with the closest observation approximately eight miles to the northwest. There is no known hydrological connection between these populations and Chiles 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,

Chiles Creek does not contain the requisite deep-water pools, and shrubby emergent aquatic vegetation necessary for the species' breeding. However, there is Mixed Oak Forest in the BSA, an oak woodland habitat suitable for upland dispersal. Therefore, the potential for this species to be in the BSA cannot be ruled out, and for the purposes of the biological resources evaluation completed for the project and this Initial Study, presence of the California red-legged frog in the BSA is inferred. The project is outside of designated California red-legged frog critical habitat.

Impacts

Demolition of the existing bridge over Chiles Creek, replacing the existing bridge with a new bridge structure, and construction of retaining walls 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, White Alder Groves community, and the Chiles 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.

Construction activities, such as vegetation removal, grading, and placement of retaining walls, could directly impact special-status amphibians if they were to be trampled or crushed by vehicles or equipment. The project would result in permanent impacts on the Mixed Oak Forest and White Alder Grove communities, which may provide potential breeding, upland, and dispersal habitat suitable for special-status amphibians. The permanent loss in habitat is minimal (less than 0.01 acre), and indirect impacts on special-status amphibian species are not expected. In addition, the replacement bridge would have a smaller permanent footprint than the existing conditions, and permanent impacts on the Mixed Oak Forest and White Alder Grove communities would be partially offset by removal of existing bridge and roadway elements, including adjacent paving.

With implementation of the proposed avoidance, minimization, and mitigation measures **BIO-5 to BIO-21**, significant impacts on the California giant salamander, 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 Chiles Creek is also inferred based on known observations within 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 of the proposed avoidance, minimization, and mitigation measures **BIO-5 to BIO-21**, and completion of compensatory mitigation for jurisdictional waters and wetlands identified in measure **BIO-44**, the project is expected to have less than significant impacts on the foothill yellow-legged frog.

Birds

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, tidal 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 sites were observed during the biological surveys conducted for the project. The nesting habitat preferred by this species is absent but 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 sites were observed during biological surveys conducted for the project. The nesting habitat preferred by this species is absent but 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 an 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 sites were observed during biological surveys conducted for the project. The nesting habitat preferred by this species is absent but 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 an 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 an SSC by the CDFW. This species is found in riparian habitats near water.

The yellow warbler also nests in montane shrubbery in open coniferous 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.*). No yellow warblers 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.

Impacts

Demolition of the existing bridge over Chiles Creek, replacing the existing bridge with a new bridge structure, and construction of retaining walls could result in temporary and permanent impacts on special-status bird species, should they be in the construction area during construction.

Construction would require vegetation removal and work on the bridge structure, including structure demolition, that could directly impact special-status bird species if these activities are conducted while birds are nesting within or adjacent to the affected areas. Temporary noise generating activities including road grinding and asphalt overlay, bridge demolition, bridge construction, and retaining wall construction, 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 project would result in permanent impacts on the Mixed Oak Forest and White Alder Groves communities, which may provide potential breeding and foraging habitat to special-status bird species. This permanent loss in habitat is minimal (less than 0.01 acre); therefore, indirect impacts on special-status bird species are not expected. In addition, the replacement bridge would have a smaller permanent footprint than the existing conditions, and permanent impacts on the Mixed Oak Forest and White Alder Grove communities would be partially offset by removal of existing bridge and roadway elements, including adjacent paving. With the implementation of avoidance and minimization measures **BIO-22** to **BIO-24**, 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.

Mammals

North American Porcupine

The North American porcupine is considered a state rank S3 species by the CDFW. 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 (Zeiner et al., 1980-1990). 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 an 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. Although pallid bats were not specifically identified, bats were observed during biological surveys conducted for the project and potential day roosts are present in the BSA. In addition, there is suitable bridge and woodland 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 an 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. Although Townsend's big-eared bats were not specifically identified, bats were observed during biological surveys conducted for the project and potential day roosts are present in the BSA. In addition, there is suitable bridge and woodland 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 by the CDFW. 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. Although silver-haired bats were not specifically identified, bats were observed during biological surveys conducted for the project and potential day roosts are present in the BSA. In addition, there is suitable woodland habitat within the BSA; therefore, there is potential for this species to be in the BSA.

Western Red Bat

The western red bat is considered an SSC by the CDFW. The western red bat roosts in forests and woodlands from sea level up through mixed coniferous 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. Although western red bats were not specifically identified, bats were observed during biological surveys conducted for the project and potential day roosts are present in the BSA. In addition, there is suitable woodland habitat within the BSA; therefore, there is potential for this species to be in the BSA.

Hoary Bat

The hoary bat is considered a state rank S4 species by the CDFW. This bat species is found in a wide variety of habitats and elevations in California. This species generally roosts in dense foliage of medium to large trees, and prefers open habitats or habitat mosaics, with access to trees for cover and open areas or

habitat edges for feeding. Although hoary bats were not specifically identified, bats were observed during biological surveys conducted for the project and potential day roosts are present in the BSA. In addition, there is suitable woodland habitat within 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 by the CDFW. 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. Although western small-footed myotis were not specifically identified, bats were observed during biological surveys conducted for the project and potential day roosts are present in the BSA. In addition, there is suitable bridge and woodland within 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 by the CDFW. 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. Although long-eared myotis were not specifically identified, bats were observed during biological surveys conducted for the project and potential day roosts are present in the BSA. In addition, there is suitable bridge and woodland habitat within 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 by the CDFW. 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. Although fringed myotis were not specifically identified, bats were observed during biological surveys conducted for the project and potential day roosts are present in the BSA. In addition, there is suitable bridge and woodland habitat within 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 by the CDFW. 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 roosting. Nursery colonies usually are located under tree bark or in hollow trees but will occasionally be in crevices or buildings. Although long-legged myotis were not specifically identified, bats were observed during biological surveys conducted for the project and potential day roosts are present in the BSA. In addition, there is suitable woodland habitat within 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 by the CDFW. 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. Although Yuma myotis were not specifically identified, bats were observed during biological surveys conducted for the project and potential day roosts are present in the BSA. In addition, there is suitable bridge and woodland habitat within 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. Construction of new retaining walls would result in a permanent loss of the Mixed Oak Forest and White Alder Grove communities, which may provide denning and foraging habitat for the North American porcupine. With implementation of avoidance and minimization measures **BIO-25** through **BIO-35**, impacts on the North American porcupine would be avoided and/or minimized, and the project would result in less than significant impacts.

Bats could be directly impacted if they were to be day or night roosting in vegetation removed during construction, or if they were to be day or night roosting on the existing bridge structure during construction. Removal of trees could result in a permanent loss of roosting and foraging habitat for bats. 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 the existing bridge would remove bat day and night roosting habitat; however, the new bridge is being designed to include bat habitat components similar to the existing structure. Therefore, demolition of the existing bridge would result in a temporary loss of a known roosting site. With implementation of avoidance and minimization measures **BIO-25** through **BIO-35**, impacts on bats would be avoided and/or minimized, and the project would result in less than significant impacts.

Mollusks

California Floater

The California floater is considered a CDFW state rank S2 species. This species is typically found in low elevation freshwater lakes, ponds, slow-moving larger rivers with mud or sand substrates and steady water levels; however, this species has been found in rivers and creeks with gravel substrates. The California floater is generally found in shallow water in Arizona, California, Idaho, Nevada, Oregon, Utah, Washington, and Wyoming. This species requires a host fish to complete reproduction and dispersal such as hardhead, pit sculpin, Sacramento pikeminnow, tule perch, and green sunfish. No California floaters were observed during biological surveys conducted for the project. However, there is suitable aquatic stream habitat with gravel substrate in the BSA; therefore, there is potential for this species to be in the BSA.

Western Ridged Mussel

The western ridged mussel is considered a CDFW state rank S1S2 species. This species is a sedentary, long lived mollusk found primarily in creeks and rivers. This species is found on the bottom of streams, rivers and lakes with substrates that vary from gravel to firm mud, and include at least some sand, silt or clay. Low shear stress (stress caused by fast flowing water over substrate), substrate stability, and flow refuges are important determinants of freshwater mussel survival. This species was originally found within most

of the state but is likely now extirpated from Central and southern California. This species is often present in areas with seasonally turbid streams, but absent from areas with continuously turbid water. This species requires a host fish to complete reproduction and dispersal. No western ridged mussels were observed during biological surveys conducted for the project. However, there is suitable aquatic stream habitat with gravel substrate in the BSA; therefore, there is potential for this species to be in the BSA.

Impacts

Demolition of the existing bridge over Chiles Creek, replacing the existing bridge with a new bridge structure, and construction of retaining walls could result in temporary and permanent impacts on special-status mollusks should they be in the construction area.

Construction materials, dust, and debris could temporarily impact water quality if materials were to enter flowing water within the channel during construction activities. Impacts on water quality could result in temporary indirect impacts on special-status mollusk species. In addition, construction activities, including water diversion and activities within the Chiles Creek channel could directly impact special-status mollusks if they were to be trampled or crushed by vehicles or equipment. With implementation of avoidance and minimization measures **BIO-5 to BIO-21** (Amphibians) and **BIO-36 to BIO-44** (Jurisdictional Wetlands and Waters), impacts to special-status mollusks would be avoided or minimized, and the project would result in less than significant impacts.

Reptiles

Western Pond Turtle

The western pond turtle is considered an SSC by the CDFW. This species is a fully aquatic turtle found in slow moving rivers, streams, lakes, ponds, wetlands, reservoirs, brackish estuarine waters, and irrigation ditches. The western pond turtle prefers areas that provide logs, algae, or vegetation for cover, and boulders for basking. In addition, the western pond turtle requires well vegetated upland refuge sites to escape predators or high-water levels. Nesting habitat for this species is generally along south-facing slopes within 16 to 300 feet of water. This species is generally found below 6,000 feet elevation. No western pond turtles were observed during biological surveys conducted for the project. However, there is suitable aquatic habitat within the BSA; therefore, there is potential for this species to be in the BSA. In addition, there is a documented observation within Chiles Creek that was observed on September 1, 1988 (CNDDDB occurrence No. 457) approximately one mile upstream from the BSA.

Impacts

Demolition of the existing bridge over Chiles Creek, replacing the existing bridge with a new bridge structure, and construction of retaining walls could result in temporary and permanent impacts on special-status reptiles should they be in the construction area.

Work within the Chiles Creek channel could result in temporary impacts on aquatic stream habitat suitable for western pond turtle foraging and dispersal. This temporary loss in habitat could result in an indirect impact on western pond turtle. In addition, construction activities within Chiles Creek such as installation of water diversions, and demolition activities within the Chiles Creek channel could directly impact the western pond turtle if they were to be trampled or crushed by vehicles or equipment.

To accommodate the new bridge structure, permanent impacts within the OHWM of Chiles Pope Creek are anticipated from the placement of the new bridge pier, which would result in permanent impacts on

aquatic stream habitat for western pond turtle. However, the replacement bridge would have a smaller permanent footprint as the existing conditions, and permanent impacts on the stream channel would be partially offset by removal of the existing bridge and roadway elements, including the existing bridge piers. With implementation of avoidance and minimization measures **BIO-5 to BIO-21** (Amphibians) and **BIO-36 to BIO-44** (Jurisdictional Wetlands and Waters), impacts to the western pond turtle would be avoided or minimized, and the project would result in less than significant impacts.

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?

Jurisdictional Wetlands and Waters

Less Than Significant with Mitigation Incorporated. Demolition of the existing bridge over Chiles Creek, replacing the existing bridge with a new bridge structure, and construction of retaining walls could result in temporary and permanent impacts on jurisdictional waters. Chiles 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 retaining wall construction. Construction activities, including vegetation removal, equipment access, water diversion, old bridge removal, retaining wall construction, and new bridge construction, would result in temporary impacts on wetlands and waters under jurisdiction of the USACE, RWQCB, and CDFW. 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 construction activities. The project would result in temporary impacts on approximately 0.01 acre of wetlands under jurisdiction of USACE and approximately 0.06 acre of non-wetland waters under jurisdiction of USACE and RWQCB. In addition, the project would result in temporary impacts on approximately 0.13 acre under jurisdiction of the CDFW.

Based on the current design, placement of the new bridge pier within the OHWM would result in permanent impacts of less than 0.001 acre on non-wetland waters under the jurisdiction of the USACE and RWQCB and permanent impacts on approximately 0.01 acre under jurisdiction of the CDFW. However, these impacts would be partially offset by the removal of existing bridge piers. In addition, the new retaining walls would result in permanent impacts on riparian habitat within CDFW jurisdiction. However, the replacement bridge would have a smaller permanent footprint than the existing conditions, and permanent impacts on riparian habitat would be partially offset by removal of the existing bridge and roadway elements, including adjacent paving.

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, minimization, and mitigation measures **BIO-36 through BIO-44**, the project would result in less than significant impacts.

Natural Community – Oak Woodlands

Demolition of the existing bridge over Chiles Creek, replacing the existing bridge with a new bridge structure, and construction of retaining walls could result in temporary and permanent impacts on oak woodlands, the Mixed Oak Forest community. The project would require vegetation removal and ground disturbance within the Mixed Oak Forest community surrounding the existing bridge and the proposed retaining walls. Construction of retaining walls and equipment access would result in temporary impacts

on approximately 0.04 acre, and permanent impacts on less than 0.01 acre of Mixed Oak Forest community. Although most of the project impacts would be temporary, any removal of established and mature oak woodland habitat would result in a long temporal loss of function. Even when juvenile trees are planted, disturbed oak woodland can take decades to regain functions of the removed mature trees (USFS, 2007).

Impacts

Impacts on the Mixed Oak Forest community would be minimized to the greatest extent feasible. With the implementation of the avoidance and minimization measures **BIO-45** to **BIO-48**, the project would result in less than significant impacts on Oak Woodlands.

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

See Discussion b. above.

Less Than Significant with Mitigation Incorporated. 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 Nationwide Permit 14 Verification 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 measures **BIO-45** through **BIO-48**, and adherence to regulatory permits, the project would result in less than significant impacts.

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?

Less Than Significant with Mitigation Incorporated. The project is within an essential habitat connectivity area and is approximately 0.73 mile from a natural landscape block. Because the BSA is within an essential habitat connectivity area, it likely serves as a migration or travel corridor through the region.

The Chiles Creek is a natural, un-lined waterway with a rocky to cobbly substrate that appears to have variable perennial flows. Chiles 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 retaining wall construction. Installation of the water diversion could result in temporary impacts on breeding, upland, and dispersal habitat suitable for special-status amphibians. In addition, work within the Chiles Creek channel could result in temporary impacts on aquatic stream habitat suitable for western pond turtle foraging and dispersal. This temporary loss in habitat could result in an indirect impact on western pond turtle. With implementation of avoidance and minimization measures **BIO-5** to **BIO-21** (Amphibians) and **BIO-36** to **BIO-44** (Jurisdictional Wetlands and Waters), the project would result in less than significant impacts with mitigation.

e. 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). Because the project is a public works project, Napa County has determined that the project is exempt from Napa County Municipal Code 16.04.750; therefore, the project would not conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

The Napa County 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 measure **BIO-45** to **BIO-48**, the project would not 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?

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 measures shall be implemented:

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.

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. The ESA shall be periodically monitored by a qualified biologist during construction activities to ensure special-status plant species are not directly or indirectly impacted.

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 for impacts on special-status plants, the following measures will be implemented:

BIO-4: If it is determined that special-status plants will be directly impacted by the project, a species-specific mitigation plan will 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 will 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:

BIO-5: Pre-construction amphibian surveys shall be conducted within 24 hours prior to start of construction by a qualified biologist.

BIO-6: If a California giant salamander 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.

BIO-7: 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.

BIO-8: 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.

BIO-9: Prior to the initiation of any work, including installation of ESA fencing or clearing and grubbing activities, a qualified biologist shall conduct an environmental worker awareness training for all project personnel. The training shall discuss the sensitive habitats and special-status species with the potential to be within the construction site and shall review the project's avoidance and minimization measures, and permitting conditions associated with biological resources.

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, when feasible, 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, under the direction of the Project Engineer and with the guidance of a qualified biologist. The exclusion fencing shall be periodically inspected for trapped wildlife by a qualified biologist. The fencing shall be completely removed following construction.

- BIO-11:** 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.
- BIO-12:** Following completion of daily work activities, any temporary breaks in the wildlife exclusion fencing to allow for construction shall be restored. Any temporary breaks in the wildlife exclusion fencing shall be conducted under the supervision of the Project Engineer and under the guidance qualified of the biologist.
- BIO-13:** 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.
- BIO-14:** 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.
- BIO-15:** 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 an elevated trailer, dumpster or similar so that the waste shall not have contact with the ground or risk entering Chiles Creek.
- BIO-16:** No construction activities shall be allowed during measurable rainfall or within 24-hours following rainfall with precipitation greater than ¼ inch. Prior to construction activities resuming, a qualified biologist shall inspect the construction area and all equipment/materials for the presence of special-status amphibians.
- BIO-17:** 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.
- BIO-18:** 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.
- BIO-19:** All project-related vehicle traffic shall be restricted to established roads and construction areas, which include equipment staging, storage, parking, and stockpile areas.
- BIO-20:** No pets shall be allowed in the construction area, to avoid and minimize the potential for harassment, injury, and death of wildlife.
- BIO-21:** Plastic monofilament netting, or similar material in any form, shall not be used at the construction area.

Compensatory mitigation discussed in Jurisdictional Wetlands and Waters is anticipated to be adequate to mitigate for temporary and permanent project impacts on suitable California red-legged frog and foothill yellow-legged frog aquatic habitat, and no additional compensatory mitigation is proposed. Given the permanent loss in upland habitat is minimal (less than 0.01 acre), no compensatory mitigation is currently proposed for permanent project impacts on suitable California red-legged frog upland habitat.

However, compensatory requirements will be finalized following consultation with USFWS and coordination with CDFW.

Birds

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

BIO-22: 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.

BIO-23: 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.

BIO-24: 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 compensatory mitigation is proposed.

Mammals

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

BIO-25: 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.

BIO-26: All construction equipment and project-related vehicles shall observe a maximum speed limit of 20 mph throughout the construction area.

BIO-27: 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.

BIO-28: No rodenticides shall be applied within the construction area throughout construction.

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

BIO-29: 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.

BIO-30: 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.

BIO-31: Tree removal shall be minimized and shall be conducted outside of the maternal and non-active seasons for bats (typically October), where feasible.

BIO-32: All removal of trees with potential bat habitat shall be conducted using a 2-step process over two consecutive days under the supervision of a qualified biologist. On the first day, any trees that do not contain crevice or cavity roosting habitat, as determined by a qualified biologist, shall be trimmed or removed (only if necessary, for project construction). In addition, limited trimming of trees (branches and small limbs with no potential roosting features) shall be completed. Construction crews shall only use hand tools (i.e. chainsaws or similar). On the calendar day immediately following the trimming, all of trees that were previously trimmed shall be removed (only if necessary, for project construction).

BIO-33: 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.

BIO-34: 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).

BIO-35: Permanent bat roosting habitat shall be incorporated into the new bridge design to replace a portion of the habitat lost from the existing bridge. The new bat roosting habitat will be designed to create habitat with similar width, depth, and thermal properties of habitat on the existing bridge. Plans for the permanent roosting habitat will be reviewed and approved by a qualified bat biologist prior to initiating construction of the new bridge. The permanent roosting habitat will be incorporated into the final plans of the new bridge, and will be monitored monthly for one year following initial verification that a roost is occupied, or up to three years to determine if bats are using the habitat. If no bats are using the permanent roosting habitat within the 3-year monitoring period, alternative mitigation will be developed in coordination with a qualified bat biologist.

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

Mollusks

To avoid and/or minimize impacts on special-status mollusks, the measures discussed in **BIO-36 to BIO-44** (Jurisdictional Wetlands and Waters) and **BIO-5 to BIO-21** (Amphibians) shall be implemented.

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

Reptiles

To avoid and/or minimize impacts on western pond turtle, the measures discussed in **BIO-36 to BIO-44** (Jurisdictional Wetlands and Waters) and **BIO-5 to BIO-21** (Amphibians) shall be implemented.

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

Jurisdictional Wetlands and Waters

To avoid and/or minimize potential impacts on jurisdictional wetlands and waters, the following measures shall be implemented:

BIO-36: Work areas will be contained within the smallest space feasible.

BIO-37: Equipment staging and storage areas for vehicles, equipment, material, fuels, lubricants, and solvents shall be restricted to designated areas located on the existing roadway.

BIO-38: Best management practices (BMP), such as silt fencing, fiber rolls, weed-free 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.

BIO-39: Removal of riparian vegetation shall be avoided to the maximum extent possible. Prior to construction, high visibility Environmentally Sensitive Area (ESA) protective fencing shall be installed at the limits of construction to prevent construction staff or equipment from further encroaching on Chiles Creek or the adjacent riparian community.

BIO-40: 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.

BIO-41: 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 site until repaired. All workers shall be informed of the importance of preventing spills and the appropriate measures to take should a spill happen.

BIO-42: Stationary equipment such as motors, pumps, generators, compressors, and welders located within 100 feet of Chiles Creek shall be positioned over drip-pans, including when in operation.

BIO-43: 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 will be implemented:

BIO-44: Mitigation for permanent impacts on riparian habitat will be accomplished through the purchase of in-lieu fees, on-site mitigation, or purchase of mitigation bank credits. Mitigation will be at a minimum ratio of 2:1 for permanent impacts and 1:1 for temporary impacts; however, the final ratio will 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:

BIO-45: Removal of oak woodlands and individual oak trees shall be avoided to the maximum extent possible.

BIO-46: 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.

BIO-47: 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.

BIO-48: 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.

Although the project shall have impacts on the Mixed Oak Forest community, the County has determined that compensatory mitigation is not warranted based on the project analysis provided in the NES; therefore, no compensatory 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

Regulatory Setting

State

California Code of Regulations Section 15064.5 (California Natural Resources Agency, 2014)

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:
 1. 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:
 - o The coroner shall contact the NAHC within 24 hours.
 - o The NAHC shall identify the person or persons it believes to be the most likely descended from the deceased Native American.
 - o 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
 2. 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, CEQA, and the California Public Resources Code. The Napa County 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, archaeological, 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 Napa County, with no residential properties visible from the project area. The nearest residence is located approximately 1,800 feet east of Chiles Pope Valley Road and not accessible from the project area.

The Area of Potential Effects (APE) is defined under 36 CFR Part 800.16(d), 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 area of potential effects 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 is located in a narrow valley between two hillslopes southwest of Chiles Valley and northeast of Lake Hennessey. The land within the APE consists of Chiles Pope Valley Road, Chiles Pope Bridge, and Chiles Creek. The land surrounding the APE, according to the Napa County General Plan, is designated for agriculture, watershed, and open space use.

Cultural Resources

Records Search

A record search of the APE and a surrounding one-mile radius was conducted on March 25, 2019 at the California Historical Resources Information System (CHRIS) Northwest Information Center (NWIC) at Sonoma State University, in Rohnert Park, California. The record search, NWIC File No: 18-1819, 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), California Register of Historical Resources (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 (ADOE) (April 5, 2012).

Known Cultural Resources

The record search identified one previously recorded resource, the Chiles Creek Bridge #21C0075, within the APE, and two previously recorded historic sites, the Broken Stove Site and the Chiles Creek Bridge #21C0075, within the one-mile search radius.

The Chiles Creek Bridge (P-28-001311) was designed by O.H. Buckman in 1905. The bridge is one of many masonry arch bridges built in Napa County during the late nineteenth and early twentieth centuries. The bridge was determined to be ineligible for the NRHP as part of the Statewide Bridge Survey completed by Caltrans in the 1980's. Authors argued that the bridge did not retain a high degree of integrity and association due to the bridge widening and upgrades constructed in the time since the original bridge was built. An updated survey completed in 2003 confirmed that the bridge continued to appear ineligible for the NRHP due to the loss of integrity of design, materials, and feeling due to bridge updates.

The Broken Stove Site [P-28-001010 (NAP-000942H)] is a historic residential site consisting of a small flat above a creek and on a knoll. The age of the site is estimated to be from 1848-1914 based on artifacts located on the site. Chiles Creek Bridge [P-28-001312 (Bridge #21C0076)] was designed by O.H. Buckman in 1910 and built by A.C. Martini. In 1940 the west side of the bridge was widened, and a section of the arch was reinforced with concrete.

Native American Consultation

Consultation with the Native American Heritage Commission (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 on April 18, 2019 providing a list of six Native American tribal representatives with traditional lands or cultural places within Napa 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.

Prehistory

The prehistoric context of the APE includes three broad periods defined as (1) the Paleoindian period; (2) the three-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. and b. Would the project cause a substantial adverse change in the significance of a historic or archaeological resource, pursuant to Section 15064?

Less Than Significant Impact. The potential for the project to impact historic properties or archaeological resources, is directly related to the likelihood that such resources are present in the project area, and whether they would be encountered during construction of the project. However, according to the records search conducted for the project, consultation with the NAHC and interested Native American individuals, and the pedestrian reconnaissance survey, there are no historic or known archaeological

properties within APE. Due to the nature of previous ground disturbances within the APE for the construction of both the existing road and the Chiles Pope Valley Road Bridge, and the relatively small amount of new horizontal ground disturbances, there remains a small potential to encounter previously unidentified archaeological deposits during construction of the project. However, the project is not anticipated to cause a substantially adverse change in significance to any historic properties or archeological resource, therefore the impact would be less than significant. Avoidance and minimization measure **CUL-1** would be implemented as part of the project if previously unidentified resources are uncovered.

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

Less Than Significant Impact. The project is located in a rural portion of Napa County that is not near or within a formal cemetery and the land surrounding and within the project area has already been 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 limits. Per avoidance and minimization measure **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

CUL-1: If previously unidentified cultural materials are encountered or unearthed during construction, work will 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.

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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. ARB 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.

Local Regulations

Napa County General Plan

The Napa County General Plan's Conservation Element outlines the following 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 an existing transportation facility. 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. Project construction would require the use of equipment that requires fuel or electricity to operate. The use of this equipment would be temporary and limited to minor energy

needs, such as gasoline or diesel for worker vehicles, maintenance equipment, and generators used to power equipment. As such, the project would not result in significant impacts of wasteful or inefficient energy consumption.

Operation of the project would not require long term energy input beyond that which is currently required because the project would not increase vehicle use. Therefore, the project would not result in significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resource, during project construction or operation.

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

No Impact. The project would not result in increased traffic, growth, or new uses of energy resources. Project construction activities would result in temporary energy usage; thus, 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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in an on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Regulatory Setting

State Regulations

Alquist-Priolo Earthquake Fault Zoning Act

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 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

California Geological Survey (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 (SER), Volume 1, Chapter 8—Paleontology.

Local Regulations

The Napa County 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 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 (USDA) Web Soil Survey indicates the project area is primarily underlain by Sobrante Loam (30 to 50 percent slopes) based on survey data for Napa County, California (United States Department of Agriculture, 2018). Sobrante loam soils were formed from the weathering of basic igneous and metamorphic rocks.

Sobrante loam soils are well drained with a water table depth of more than 80 inches and have a high runoff class. At zero to six inches the soil profile consists of loam, from six to 30 inches the soil profile consists of clay loam, and from 30 to 40 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 0.32 (United States Department of Agriculture, 2018). A K factor between 0.25 and 0.4 indicate 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).

Sobrante 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 textures (United States Department of Agriculture, 2007). This soil group has a moderately high runoff potential, with low infiltration rates.

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. According to the Department of Conservation's California Geological Survey (CGS), the project area is not located within a known earthquake fault zone (California Department of Conservation, 2019). Therefore, there would be no impact.

ii. **Strong Seismic Ground shaking**

Less Than Significant 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. Napa County has historically experienced earthquakes of sufficient magnitude to damage structures and bridges that did not meet current seismic safety standards. The project would include the construction of a new bridge and retaining walls that could be affected by strong ground motion in this area. However, the project would meet current seismic standards, and would not increase exposure to existing hazards in the project area. Therefore, impacts would be less than significant.

iii. **Seismically Induced Ground Failure**

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).

The liquefaction zone is an area which has a historical occurrence of liquefaction, or local geological, geotechnical, and ground water conditions which indicate a potential for permanent ground displacements. However, according to the Department of Conservation's CGS, the project is not located in a liquefaction zone (California Department of Conservation, 2019). Thus, the project would not expose people or structures to new potential impacts involving seismic-related ground failure, in comparison to current existing conditions; therefore, there would be no impacts.

iv. **Landslides, Including Seismically Induced Landslides**

Less Than Significant Impact. According to the Department of Conservation's CGS, the project is not located in an area susceptible to landslides (California Department of Conservation, 2019). However, the project area is surrounded by steep ground slopes along and adjacent to the bridge. To provide the ground stability and to retain the soil along the steep elevation differences, four new retaining walls would be constructed for the project. Therefore, impacts would be less than significant.

b. **Would the project result in Substantial Soil Erosion or Loss of Topsoil?**

Less Than Significant Impact. The project may involve minor soil erosion due to excavation, vegetation removal, and other construction activities. The project would include construction of a new bridge along Chiles Pope Valley Road. Standard BMPs would be implemented to minimize the potential for soil erosion during construction. Additionally, retaining walls 2 and 4 would alleviate potential erosion as the creek bends at the bridge location, and retaining wall 3 would alleviate potential erosion of the canyon slope due to creek flow exiting past the bridge and hitting the canyon slope. 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?

Less Than Significant Impact. As discussed above, the project area is not located near or within a liquefaction or landslide zone. However, the project area is surrounded by steep ground slopes along and adjacent to the bridge. To provide the ground stability and to retain the soil along the steep elevation differences, four new retaining walls would be constructed for the project. Therefore, impacts would be less than significant.

d. Would the project 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?

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 will swell, and with lower moisture levels, the soils will 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 unit (generally less than 50%) 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 in areas where sewers are not available for the disposal of waste water?

No Impact. The project would replace an existing bridge and would not require the installation of septic tanks or alternative 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 is in a rural area where soils have been previously disturbed. The project area does not include a unique geologic feature. Soil disturbance resulting from the project would include excavation for the

bridge abutments of depth up to five feet below the existing road surface, minor regrading of the channel slopes, and roadway reconstruction. Therefore, the project would result in no impact on paleontological resources or unique geological features.

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Regulatory Setting

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 CO₂. 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 Executive Order (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 Assembly Bill 32 (AB 32). The Legislature also intended that the statewide GHG emissions limit continue in existence and be used to maintain and continue reductions in

emissions of greenhouse gases 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.

Assembly Bill 32 - California Global Warming Solutions Act of 2006

AB 32: The Global Warming Solutions Act of 2006 sets the same overall GHG emissions reduction goals outlined in Executive Order S-3-05 while further mandating that the ARB create a plan that includes market mechanisms and implements rules to achieve “real, quantifiable, cost-effective reductions of GHG.” The Scoping Plan was adopted by the ARB December 12, 2008. In August 2011, the initial Scoping Plan was re-approved by the ARB in order to satisfy environmental review requirements. Governor’s EO S-20-06 further directs State agencies to begin implementing AB 32, including the recommendations made by the State’s Climate Action Team.

Senate Bill 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 97

SB 97 required the Governor’s Office of Planning and Research (OPR) to develop amendments to the State CEQA Guidelines for addressing GHG emissions. The amendments became effective on March 18, 2010. AB 1493—Pavley Rules (2002, amendments 2009)/Advanced Clean Cars (2011): Known as Pavley I, the standards set forth in AB 1493 were the nation’s first GHG standards for automobiles. AB 1493 required the ARB to adopt vehicle standards that would lower GHG emissions from new light-duty autos to the maximum extent feasible beginning in 2009. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009 model year. In June 2009, the US EPA administrator granted a FCAA waiver of preemption to California. This waiver allowed California to implement its own GHG emission standards for motor vehicles beginning with model year 2009. Additional strengthening of the Pavley standards (referred to previously as Pavley II, now referred to as the Advanced Clean Cars measure) has been proposed for vehicles built during model years 2017 through 2020. Together, the two standards are expected to increase average fuel economy to roughly 43 mpg by 2020 and reduce GHG emissions from the transportation sector in California by approximately 14%.

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 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 for the achievement of the emissions target for their region.

Climate Change Scoping Plan

In October 2008, ARB published its Climate Change Proposed 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 carbon dioxide equivalent (CO₂e), or approximately 30 percent from the state's projected 2020 emissions level of 596 Metric tons of carbon dioxide equivalent (MMTCO₂e) under a business-as-usual scenario (this is a reduction of 42 MMTCO₂e, 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 MMTCO₂e), implementation of the Low Carbon Fuel Standard (15.0 MMTCO₂e) program, energy efficiency measures in buildings and appliances and the widespread development of combined heat and power systems (26.3 MMTCO₂e), and a renewable portfolio standard for electricity production (21.3 MMTCO₂e). 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 MMTCO₂e. 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 MMTCO₂e 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 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 California Building Code 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 California Building Code 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 greenhouse gas 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 MMTCO₂e 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 Napa County General Plan's Conservation Element 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 greenhouse gases that contribute to climate change.
 - **Policy CON-65:** The County shall support efforts to reduce and offset greenhouse gas (GHG) emissions and strive to maintain and enhance the County's current level of carbon sequestration functions through the following measures:
 - e. 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
 - Utilize recycled, low-carbon, and otherwise climate-friendly building materials such as salvaged and recycled content materials for buildings, hard surfaces, and landscaping materials.
 - Minimize, reuse, and recycle construction-related waste.

- Utilize alternative fuels in construction equipment and require construction equipment to utilize the best available technology to reduce emissions.

Environmental Setting

Greenhouse gases (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 dioxide (CO₂) emissions resulting from the combustion of petroleum-based products, like gasoline, in internal combustion engines (United States 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, 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Be located on a site 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard or excessive noise for people residing or working in the Project Area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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 the California Environmental Quality Act requirements in providing information about the location of hazardous materials release sites. Government Code section 65962.5 requires the California Environmental Protection Agency 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. HWCL implements RCRA as a “cradle-to-grave” waste management system in the State. The law states that generators have the primary duty to determine whether their wastes are hazardous and to ensure their proper management. 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 California Code of Regulations (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 Code of Federal Regulations [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 Napa County 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 two rural residential properties located along Chiles Pope Valley Road. No residential properties are visible from the project area and the nearest residence is located approximately 1,800 feet east of Chiles Pope Bridge. Chiles Pope Valley Road is a major collector in the County road system and is a rural mountain road that runs along the bottom of Chiles Canyon adjacent to Chiles Creek. The current average daily traffic (ADT) is 811 with a projected ADT of 1412 in 2040.

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). There is roadway striping throughout the project area, including a double-yellow center line and white sidelines along Chiles Pope Valley Road. 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).

Airports

There are two public use airports in the county: the Napa County Airport located south of the City of Napa (approximately 20 miles south of the project area), and the Angwin-Parrett Field located in Angwin (approximately 6 miles northwest 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. 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 will characterize the yellow paint that will 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 (CIH). Therefore, impacts would be less than significant.

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. Chile Pope Valley Road has not been subject to significant traffic stoppage, idling, or slow-moving traffic on Chiles Pope Valley Road, which would increase the likelihood of hazardous amounts of ADL having accumulated in the project area, and construction of the project would not increase traffic volumes 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. However, soil disturbance resulting from the project would include excavation for the bridge abutments of depth up to five feet below the existing road surface, minor regrading of the channel slopes, and roadway reconstruction. It is not anticipated that excess soil would be generated by the excavations, 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 will 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 would 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. With the implementation of avoidance and minimization measures **HAZ-1** and **HAZ-2** impacts would be minimized or avoided, and the project would 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. No schools are located within 0.25 mile of the project area. The nearest school, Saint Helena Montessori School, is located in the City of Saint Helena, approximately six miles west of the project area. Therefore, the project would not impact any schools.

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?

No Impact. As discussed above, 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. As discussed above, there are two public use airports in the county: the Napa County Airport located south of the City of Napa (approximately 20 miles south of the project area), and the Angwin-Parrett Field located in Angwin (approximately 6 miles northwest the project area). Therefore, the project would not impact any airport land use plan.

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 require full closure of Chiles Pope Valley Road to the public for the entire nine-month duration of construction. During construction, access for fire and emergency vehicles would be provided, if needed, except for an anticipated period of four months when a complete closure of the bridge would be needed when the existing bridge has been removed. The closure would extend approximately 3.7 miles along Chiles Pope Valley Road, from Lower Chiles Valley Road in the north to SR-128 in the south. Therefore, a detour route

has been identified for the project. Traffic would be detoured via SR-128 and Lower Chiles Valley Road. The total length of detour would be 11.3 miles. For traffic traveling between the Chiles Pope Valley Road/Lower Chiles Valley Road intersection and SR-128 west, the detour would add 4.0 miles (about 8 minutes) to each trip.

Following project construction, thru access along Chiles Pope Valley Road would be reopened to the public. Applicable construction measures would minimize temporary construction impacts by ensuring public safety throughout implementation of temporary roadways and detour routes 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 Napa County General Plan's Safety Element, the project is located in an area that is classified as a High Fire Hazard Severity Zone. 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

HAZ-1: 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.

HAZ-2: 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge, such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i. Result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The following discussion incorporates the results of the Water Quality Memorandum that was prepared for this project (Avila and Associates, Consulting Engineers, Inc., 2020).

Regulatory Setting

Federal Regulations

Clean Water Act

The United States Army Corps of Engineers (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 Clean Water Act (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 Regional Water Quality Control Board (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 Waste Discharge Requirements (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 California Department of Fish and Wildlife (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 jurisdiction 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 State Water Resources Control Board (SWRCB) determines water rights, sets water pollution control policy, issues water board orders on matters of statewide application, and oversees water quality functions throughout the state by approving basin plans, Total Maximum Daily Loads (TMDLs), and National Pollutant Discharge Elimination System (NPDES) permits. Regional Water Quality Control Boards (RWQCB) 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 water 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 specify 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

The Napa County General Plan (County's General Plan) contains the County's goals and desires concerning land use and is designed to serve as the basis for development decisions (Napa County, 2013). 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 watersheds 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 land owners and managers about improving surface water quality (e.g. rural and private road maintenance, soil and vegetation retention, construction site management, runoff control, etc.) and cooperating with other governmental and non-governmental agencies seeking to establish waiver or certifying 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 stormwater 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 of Napa, 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 Best Management Practices (BMPs) for construction projects, including erosion and sediment control BMPs (Napa County, 2018).

Environmental Setting

The project is in an unincorporated portion of Napa County, east of Napa Valley, in the hillside. The project area is surrounded by dense trees. The elevation of the project area is approximately 486 feet above mean sea level (msl).

Hydrology

Surface Waters

Based on classification system for surface water employed by the San Francisco Bay RWQCB, as defined by the United State Geologic Survey (USGS), the project area is in the Conn Creek Watershed, which covers approximately 47,612 acres; and Chiles Creek Sub-watershed, which covers approximately 20,502 acres (UC Davis Sustainability Indicators Group, 2018a; UC Davis Sustainability Indicators Group, 2018b).

- Napa County Resource Conservation District identifies three watersheds within Napa County: Napa River, Putah Creek, and Suisun Creek (Napa County Resource Conservation District, 2018)
- Within the Napa River Watershed, the Napa County Flood Control and Water Conservation District delineates into smaller watersheds. Chiles-Pope Bridge falls within the Chiles Creek Main Fork Sub-Watershed (Napa County Flood Control and Water Conservation District, 2009)
- Chiles Creek – Main Fork Sub-Watershed encompasses approximately 4,126 acres (Watershed Information and Conservation Council, 2018)

According to the San Francisco Bay RWQCB Basin Plan, beneficial uses of Chiles Creek are municipal and domestic supply (MUN), freshwater replenishment (FRSH), cold freshwater habitat (COLD), 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 06055C0300E, 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 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). However, the County has divided the area into 17 subareas, the project is located in the Eastern Mountain subarea (Subarea) (Luhdorff & Scalmanini Consulting Engineers, 2016).

- Geology of the Eastern Mountains: Volcanic rock types, including andesitic, basaltic, and dacite lava flows as well as tuffs and breccias. North and East of Lake Hennessey (project area is located northeast of Lake Hennessey) an exposure of older, metamorphic Franciscan Complex (Watershed Information and Conservation Council, 2015).
- 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).

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 with Mitigation Incorporated. Construction of the project would require excavation, vegetation removal, and other construction activities could result in bank erosion or cause dust and soil to fall into the creek. Additionally, demolition of the existing bridge could result in construction debris, materials, oil, fuel, and other petroleum products unintentionally falling or being released from construction areas and equipment into the creek below the bridge. However, avoidance and minimization measures **WQ-1** and **WQ-2**, would be implemented to reduce construction impacts to the greatest extent feasible. Therefore, impacts on surface water quality from construction of the project would be reduced to the less than significant, with implementation of avoidance and mitigation measures **WQ-1** and **WQ-2**.

- 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. The proposed bridge structure would maintain the alignment and vertical profile of the existing structure; however, the new bridge would be longer than the existing bridge, and would consist of a 105-foot-long by 26-foot-wide structure, approximately one foot wider and 20 feet

longer than the existing 85-foot long by 25-foot wide bridge.

Operation of the project would not require the use of any water and project construction would use a minimal amount of water. Installation of the new bridge would result in a decrease of impervious surface area, and these improvements would not substantially impact groundwater recharge. Therefore, impacts 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 surfaces, in a manner that would:

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

Less Than Significant Impact with Mitigation Incorporated. Construction of the project would require excavation, vegetation removal, and other construction activities that could result in bank erosion. However, with the implementation of avoidance and minimization measures **WQ-3** through **WQ-7**, which include erosion control measures, impacts would be minimized or avoided, and the project would result in less than significant impacts.

The project would result in a decrease of impervious surface. Although the project would result in a minor decrease in storm runoff, the project will 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 project would be designed in compliance with regulatory requirements; therefore, operational impacts on water quality would be minimal.

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

Less Than Significant Impact. Although the project would result in a minor decrease in storm 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; or

Less Than Significant Impact. Please see response c(ii) above.

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 alter creek flows. 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. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Less Than Significant Impact. As shown on Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Map Number 06055C0300E, 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, according to the California Coastal Commission, the project is located approximately 35 miles east of the nearest coastal zone boundary of Marin County (California Coastal Commission, 2019); thus, the project is not in a tsunami or seiche zone. Therefore, there impacts would be less than significant.

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 and Minimization Measures

Hazardous Materials Conditions

The following measures would be implemented to prevent hazardous materials from entering Chiles Creek:

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 Chiles Creek.

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

The following measures would be implemented during construction to avoid or minimize adverse effects on water quality within Chiles Creek during construction:

WQ-3: Work areas would be minimized to the smallest area feasible.

WQ-4: Staging areas would be sited away from the edges of the river to reduce potential for disturbance of, or non-stormwater discharge to, Chiles Creek.

WQ-5: BMPs, including silt fencing and fiber rolls, would be implemented to minimize dust, dirt, and debris resulting from construction activities, and to protect water quality of Chiles Creek pursuant

to the requirements of the RWQCB and project permits.

WQ-6: 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 Chiles Creek, and to meet requirements of the RWQCB and project permits.

WQ-7: All disturbance to aquatic habitat, including riparian vegetation and jurisdictional water would be minimized with the use of ESA 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 Notification, Section 401 Water Quality Certification, and a Section 404 Pre-Construction Notification 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The following discussion incorporates the results of the Land Use and Community Impacts Memorandum that was prepared for this project (GPA Consulting, 2020).

Regulatory Setting

State Regulations

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.

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

The Napa County General Plan's Community Character and Circulation Elements outline the following goals and policies regarding Land Use and Planning:

- **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 those shown in Figure CC-3, or 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 divide an Established Community

Less Than Significant Impact. The project would include replacing an existing bridge; therefore, operation of the project would not divide the existing community. The replacement of the bridge will require a detour of approximately 11.3 miles to complete the project. As such, local residents would experience a

minor increase in commute time for the duration of construction (up to nine months). Following construction, access would be restored. Therefore, impacts would be less than significant.

a. Would the project conflict with Land Use Plans or Policies

No Impact. The purpose of the project is to improve public safety and ensure long-term access through the project area by providing a permanent, safe crossing over Chiles Creek on Chiles Pope Valley Road. The purpose of the project is consistent with Goal CIR-1 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. Therefore, the project would result in less than significant impacts regarding conflict with applicable land use plan, policy, or regulation of an agency with jurisdiction over the project.

Avoidance, Minimization, and/or Mitigation Measures

None. The project would not require Avoidance, Minimization, and/or Mitigation Measures for 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Regulatory Setting

State Regulations

The Surface Mining and Reclamation Act of 1975 (SMARA, Public Resources Code, 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 Napa County 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, 2013).

Discussion of Checklist Responses

a. and b. 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? 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. 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.

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 a local general plan or noise ordinance or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

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

California Environmental Quality Act

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 policies 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 Napa 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- 7pm)	75 dBA	80 dBA	85 dBA
Night (7 pm-7 am)	60 dBA	65 dBA	70 dBA

(Napa County elaws, 2013)– Code of ordinance Section 8.16.070

Environmental Setting

The project is located in a rural portion of Napa County, approximately 1,800 feet away from the nearest sensitive noise receptor. The primary source of noise in the project area is from traffic along Chiles Pope Valley Road.

Discussion of Checklist Responses

- a. **Would the project generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in a 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 Lmax 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

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

http://www.fhwa.dot.gov/environment/noise/construction_noise/rcnm/rcnm.pdf

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 Municipal Code, 2019a). 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 Chiles Pope Bridge with a new one that would have the same alignment and vertical profile as 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 Napa County 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. 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 window panes and glassware is another significant source of disturbance caused by groundborne vibrations. In all of 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 approximately 1,800 feet away from the project area, vibration can travel long distances from its source.

According to the United States Geological Survey (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 Municipal Code, 2019a). 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 Napa

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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Displace a substantial number of existing people or housing units, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The project area is largely undeveloped and rural with mountains framing the roadway on both sides. No residential properties are visible from the project area and the nearest residence is located approximately 1,800 feet east of Chiles Pope Valley Road and not accessible from the project area.

Chiles Pope Valley Road is a major collector in the County road system which consists of two 11' lanes with minimal shoulders and no medians. Chiles Pope Valley Road is a rural mountain road that runs along the bottom of Chiles Canyon adjacent to Chiles Creek with relatively steep canyon slopes framing both sides of the roadway and Chiles Creek at the canyon bottom. At the existing bridge location, the creek crosses from one side of the road to the other. The relatively steep canyon slopes and vegetation along the roadway provides limited sight distance for vehicles traveling to and from the bridge.

Discussion of Checklist Responses

a. Would the project induce Population Growth

No Impact. The project would not induce population growth because the project only includes the removal and installation of a new bridge with no increase in roadway capacity. In addition, the project does not include the construction of new homes or businesses. As such, the project would not induce population growth. Therefore, there would be no impact.

b. Would the project displace Population or Housing

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 residence to move or be displaced as a result. 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, or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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 County's 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 Napa County. Emergency services that service the project area include:

- **Fire Protection:** Napa County Fire Department; 1199 Big Tree Rd, St. Helena, CA 94574
- **Police Protection:** St. Helena Police Department; 1480 Main Street, St. Helena, CA 94574

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, or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:

- Fire protection?

- **Police protection?**
- **Schools?**
- **Parks?**
- **Other public facilities?**

Less Than Significant Impact. Construction of the project would require full closure of Chiles Pope Valley Road to the public for the entire nine-month duration of construction. During construction, access for fire and emergency vehicles would be provided, if needed, except for an anticipated period of four months when a complete closure of the bridge would be needed when the existing bridge has been removed. The closure would extend approximately 3.7 miles along Chiles Pope Valley Road, from Lower Chiles Valley Road in the north to SR-128 in the south. Therefore, a detour route has been identified for the project. Traffic would be detoured via SR-128 and Lower Chiles Valley Road. The total length of detour would be 11.3 miles. For traffic traveling between the Chiles Pope Valley Road/Lower Chiles Valley Road intersection and SR-128 west, the detour would add 4.0 miles (about 8 minutes) to each trip.

Following project construction, thru access along Chiles Pope Valley Road would be reopened to the public. Applicable construction measures would minimize temporary construction impacts by ensuring public safety throughout implementation of temporary roadways and detour routes 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, schools, parks, or other public facilities or governmental services. The project would improve public safety and maintain access across the bridge; 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 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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 Napa County General Plan discusses Recreation as a resource that should be available to everyone at no cost, or low costs price points. Due to this, Napa 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

There are several recreational areas along Chiles Pope Valley Road. Moore Creek Park, which is operated by Napa County Regional Park & Open Space District, is approximately one mile south of the project area. In addition, there are several fishing access points approximately two miles south of the project area. Chiles Pope Valley Road is a designated Class III Bike Route.

Discussion of Checklist Responses

a. Increase Use of Existing Parks or Recreational Facilities

No Impact. The project would not increase the capacity of the roadway; therefore, the project would not result in population growth that would increase the use of recreational facilities; therefore, there would be no impacts.

b. Creation of New or Altered Recreational Facilities

No Impact. The project is not located within or adjacent to any parks or recreational facilities (Napa County Department of Conservation, Development and Planning, 2008). The project would not include the construction of new facilities or require the expansion of existing recreational facilities because the

project would not result in population growth that would increase demand for additional recreational facilities therefore, there would be no impacts.

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The following discussion incorporates the results of the Traffic Memorandum (December 2019) that was prepared for this project (GPA Consulting, 2019).

Regulatory Setting

Local Regulations

Napa County General Plan

The Circulation Element of the Napa County 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

Chiles Pope Valley Road is a major collector in the County road system and is a rural mountain road that runs along the bottom of Chiles Canyon adjacent to Chiles Creek. The current bridge is a two-lane bridge

with no shoulders that carries 2-way traffic. The current average daily traffic (ADT) amount for Chiles Pope Bridge is 881 cars, with a projected ADT of 1,412 cars in 2040. Additionally, the County General Plan outlines that portions of Chiles Pope Valley Road can be expected to experience a higher LOS on weekends verses weekday traffic due to the influx of tourists and winery visitors (Napa County Department of Conservation, Development and Planning, 2008).

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 Chiles Pope Valley Road in order to provide a safe, functional, and reliable crossing over Chiles Creek. Although the project would ensure continued vehicular and pedestrian safety and reliable accessibility along Chiles Pope Valley 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 with Mitigation Incorporated. Construction of the project would require full closure of the roadway to the public during the nine-month construction period. Chiles Pope Valley Road is a major collector in the County road system. The current average daily traffic (ADT) along the road is 811. However, during construction of the project, avoidance and minimization measures **TRAN-1** and **TRAN-2** would be implemented, and detour routes for be used to redirect traffic during the anticipated construction period. Traffic would be detoured via SR-128 and Lower Chiles Valley Road. The total length of detour would be 11.3 miles. For traffic traveling between the Chiles Pope Valley Road/Lower Chiles Valley Road intersection and SR-128 west, the detour would add 4.0 miles (about 8 minutes) to each trip. A Traffic Control Plan would be developed to identify detour details and an implementation plan. Residents along Chiles Pope Valley Road would be able to bypass the road closures to access their properties, and a temporary heavy equipment access road would be constructed leading down into the creek by grading of the roadway approach and the creek bank just upstream of the existing bridge. Therefore, impacts would be less than significant with the implementation of avoidance and minimization measures **TRAN-1** and **TRAN-2**.

c. Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. The project would comply with County building standards to replace a structurally deficient bridge along Chile Pope Valley Road. During construction, potential safety hazards could result from construction vehicles and equipment traveling or being staged along the roadway. However, construction of the project would require full closure of the roadway to the public during the nine-month construction period to minimize potential conflict with oncoming traffic, cyclists, or pedestrians traveling in the project area. Additionally, the new bridge would maintain the vertical profile of the existing bridge and would not increase travel lanes along the roadway; thus, no dangerous geometric design features or incompatible uses would be implemented as part of the project, in comparison to existing conditions. Therefore, there would be no impact.

d. Result in inadequate emergency access?

Less Than Significant Impact. Construction of the project would require full closure of Chiles Pope Valley Road to the public for the entire nine-month duration of construction. However, during construction, access for fire and emergency vehicles would be provided, if needed, except for an anticipated period of four months when a complete closure of the bridge would be needed when the existing bridge has been removed. The closure would extend approximately 3.7 miles along Chiles Pope Valley Road, from Lower Chiles Valley Road in the north to SR-128 in the south. However, a detour route would be implemented during construction of the project. Traffic would be detoured via SR-128 and Lower Chiles Valley Road, and the total length of detour would be 11.3 miles. For traffic traveling between the Chiles Pope Valley Road/Lower Chiles Valley Road intersection and SR-128 west, the detour would add 4.0 miles (about 8 minutes) to each trip. Additionally, construction-related traffic impacts on emergency services or emergency evacuation routes would be minimized with coordination with emergency service providers to ensure that appropriate detour routes are provided, if necessary. Therefore, project impacts would be considered less than significant.

Avoidance, Minimization, and/or Mitigation Measures

The following avoidance and minimization measures would be implemented as part of the project to prevent traffic impacts.

TRAN-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.

TRAN-2:Traffic detours would be provided to the public throughout project construction. For construction there will be a limited closure allowing fire and emergency vehicles, and a complete closure once the existing bridge has been removed. A complete closure to the public is expected to last nine months. During this time, access for fire and emergency would be provided, if needed, except for an anticipated period of four months. During construction, traffic travelling on Chiles Pope Valley Road would be detoured via SR-128 and Lower Chiles Valley Road. Periodic night and weekend work may be required during the nine months to accomplish project construction. A Traffic Control Plan would be prepared to provide detail regarding the detour route and implementation.

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 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:				
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Regulatory Setting

In 2014, Assembly Bill 52 (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 Napa Valley, at the time of European contact, was within the territory of the Wappo, a Yukian language group, which at the 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 period, the St. Helena Valley General Plan notes that two Wappo villages were recorded approximately two miles northeast of St. Helena. 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

Consultation with the Native American Heritage Commission (NAHC) in Sacramento was conducted by submitting an electronic request form through the NAHC website. The NAHC provided a list of six Native American tribal representatives with traditional lands or cultural places within Napa 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).

Additionally, on July 24, 2020, 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. The County received no responses nor requests to consult under AB 52 from any of the notified tribes. On December 21, 2020, the County mailed notices of Closed Status of Tribal Consultation Invitations to each of the tribes documenting that no requests to consult under AB 52 were received. On December 29, 2020, Middletown Rancheria (Tribe) Tribal Historic Preservation Department requested consultation on the project. On January 12, 2021, the County met with the representative from the Tribal Historic Preservation Department at the proposed project site. The Tribe identified potential for resources to be discovered during project implementation.

Discussion of Checklist Items

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 with Mitigation Incorporated. A record search of the APE and a surrounding one-mile radius was conducted at the California Historic Resources Information System, Northwest Information Center (NWIC) to identify any historic properties or previous cultural resources studies on file. One previously recorded historical resource has been documented within the APE, the Chiles Pope Valley Bridge (P-28-001311); two previously recorded historic resources (P-28-001010 the Broken Stove Site, and P-28-001312 the Chiles Creek Bridge) are located within the one-mile search radius; and five previous studies were conducted within one mile of the APE. However, no cultural resources or sacred sites were identified by the Native American Heritage Commission (NAHC), or with the interested Native American individuals and groups identified by the NAHC. Additionally, no tribes responded to or provided information on tribal cultural resources in the project area in response to invitations to consult under AB 52.

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. However, no prehistoric or historic cultural material was observed during the reconnaissance survey.

Due to the nature of previous ground disturbances within the APE for the construction of the Chiles Pope Valley Bridge and existing road, 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. However, construction of the project would include ground disturbing activities that could unearth tribal cultural resources should they be present in the project limits. Tribal cultural resources could include, but are not limited to, Native American human remains, funerary objects, items or artifacts, sites, features, places, landscapes, or objects with cultural values to the Tribe. With the implementation of the avoidance and minimization measures **CUL-2** and **TCR-1** through **TCR-5**, impacts to tribal cultural resources would be less than significant.

Avoidance, Minimization, and/or Mitigation Measures

If unanticipated buried cultural materials, tribal cultural resources, or human remains are encountered during construction of the project, avoidance and minimization measure **CUL-2**, **TCR-1** through **TCR-5** would be implemented.

TCR-1: Prior to initial ground disturbance, the applicant shall retain a project Tribal Cultural Advisor designated by the Tribe, to direct all mitigation measures related to tribal cultural resources.

TCR-2: Ground disturbing activities occurring in conjunction with the Project (including surveys, testing, concrete pilings, debris removal, rescrapes, punch lists, erosion control (mulching, waddles, hydroseeding, etc.), pot-holing or auguring, boring, grading, trenching, foundation work and other excavations or other ground disturbance involving the moving of dirt or rocks with heavy equipment or hand tools within the Project area) shall be monitored on a periodic basis by qualified tribal monitor(s) approved by the Tribe. The tribal monitoring shall be supervised by the project Tribal Cultural Advisor. Tribal monitoring should be conducted by qualified tribal monitor(s) approved by the Tribe, who is defined as qualified individual(s) who has experience with identification, collection and treatment of tribal cultural resources of value to the Tribe. The duration and timing of the monitoring will be determined by the project Tribal Cultural Advisor. If the project Tribal Cultural Advisor determines that monitoring is no longer warranted, he or she may recommend that tribal monitoring be reduced or cease entirely. Tribal monitoring would be reinstated or increased in the event of any new or unforeseen ground disturbances or discoveries.

TCR-3: The project Tribal Cultural Advisor and tribal monitor(s) may halt ground disturbance activities in the immediate area of discovery when known or suspected tribal cultural resources are identified until further evaluation can be made in determining their significance and appropriate treatment or disposition. There must be at minimum one tribal monitor for every separate area of ground disturbance activity that is at least 30 meters or 100 feet apart unless otherwise agreed upon in writing between the Tribe and applicant. Depending on the scope and schedule of ground disturbance activities of the Project (e.g., discoveries of cultural resources or simultaneous activities in multiple locations that requires multiple tribal monitors, etc.) additional tribal monitors may be required on-site. If additional tribal monitors are needed, the Tribe shall be provided with a minimum of three (3) business days advance notice unless otherwise agreed upon between the Tribe and applicant. The on-site tribal monitoring shall end when the ground disturbance activities are completed, or when the project Tribal Cultural Advisor have indicated that the site has a low potential for tribal cultural resources.

- TCR-4:** All on-site personnel of the Project shall receive adequate cultural resource sensitivity training approved by the project Tribal Cultural Advisor or his or her authorized designee prior to initiation of ground disturbance activities on the Project. The training must also address the potential for exposing subsurface resources and procedures if a potential resource is identified. The Project applicant will coordinate with the Tribe on the cultural resource sensitivity training.
- TCR-5:** The Project applicant must meet and confer with the Tribe, at least 45 days prior to commencing ground disturbance activities on the Project to address notification, protection, treatment, care and handling of tribal cultural resources potentially discovered or disturbed during ground disturbance activities of the Project. All potential cultural resources unearthed by Project activities shall be evaluated by the project Tribal Cultural Advisor. The Tribe must have an opportunity to inspect and determine the nature of the resource and the best course of action for avoidance, protection and/or treatment of tribal cultural resources to the extent permitted by law. If the resource is determined to be a tribal cultural resource of value to the Tribe, the Tribe will coordinate with the Project applicant to establish appropriate treatment and disposition of the resources with appropriate dignity which may include reburial or preservation of resources. The Project applicant must facilitate and ensure that the determination of treatment and disposition by the Tribe is followed to the extent permitted by law. No laboratory studies, scientific analysis, collection, curation, or video recording are permitted for tribal cultural resources without the prior written consent of the Tribe.

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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 no utilities, such as electrical, telephone, cable, water, or sewer, in the project area.

Napa 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?**

No Impact. The project would not require the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities. Therefore, there would be no impacts.

- 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. Operation of the project would not require the use of any water and project construction would use a minimal amount of water (typically limited to water applied for dust control and concrete wash out). 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 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. Construction of the new bridge would demolish the existing bridge structure, including the entire original masonry stone arch bridge, and replacing it with a longer bridge. In addition to removing the existing bridge, the project would remove portions of the existing roadway approach within the limits of the new bridge. These existing approaches likely consist of a combination of previous fill and native material, which would be off-hauled and disposed of off-site. 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. Therefore, 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 statutes and regulations related to solid waste. 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 Utilities.

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Regulatory Setting

State Regulations

California Department of Forestry and Fire Protection

California law requires the California Department of Forestry and Fire Protection 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 interface fire losses are referred to by law as "Fire Hazard Severity Zones" (FHSZ). 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 Napa County General Plan's Safety Element outlines the following goals and policies regarding Wildfires:

- **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 area is largely undeveloped and rural with mountains framing the roadway on both sides. Chiles Pope Valley Road is a rural mountain road that runs along the bottom of Chiles Canyon adjacent to Chiles Creek with relatively steep canyon slopes framing both sides of the roadway and Chiles Creek at the canyon bottom. Within the project area, Chiles Creek is a natural, un-lined waterway with medium to heavily vegetated steep-sloped banks. Several areas along the creek are lined with steep slopes and dense

vegetation making the creek inaccessible at these locations.

a. Discussion of Checklist Responses Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. Construction of the project would require full closure of Chiles Pope Valley Road to the public for the entire nine-month duration of construction. During construction, access for fire and emergency vehicles would be provided, if needed, except for an anticipated period of four months when a complete closure of the bridge would be needed when the existing bridge has been removed. The closure would extend approximately 3.7 miles along Chiles Pope Valley Road, from Lower Chiles Valley Road in the north to SR-128 in the south. Therefore, a detour route has been identified for the project. Traffic would be detoured via SR-128 and Lower Chiles Valley Road. The total length of detour would be 11.3 miles. For traffic traveling between the Chiles Pope Valley Road/Lower Chiles Valley Road intersection and SR-128 west, the detour would add 4.0 miles (about 8 minutes) to each trip. Once the traffic control plans are finalized, the County will notify the Fire Department, Sheriff's Department, and local residents up to one year prior to the start of construction with road closure and traffic detour information. During construction, the contractor shall also notify the Fire Department, Sheriff's Department, and local residents of upcoming road closures and traffic detour plans prior to and during construction.

Following project construction, thru access along Chile Pope Valley Road would be reopened to the public. Project construction would comply with construction procedures identified in the California Manual on Uniform Traffic Control Devices per Napa County Road and Street Standards, Section 17, Traffic Control Devices (Napa County, 2019). Applicable construction measures would minimize temporary construction impacts by ensuring public safety throughout implementation of temporary roadways and detour routes for the project; thus, the project would not substantially impair an adopted emergency response plan or emergency evacuation plan. Therefore, project impacts would be considered less than significant.

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?

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 a High Fire Hazard Severity Zone. However, 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?

No Impact. The project would not require the installation or maintenance of any associated infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. Therefore, there would be no impact.

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 portion of Napa County surrounded by trees, vegetation, and relatively steep canyon slopes framing both sides of the roadway. Construction of the project would replace the structurally deficient Chiles Pope Bridge to provide a safe, functional, and reliable crossing over Chiles Creek on Chiles Pope Valley Road. However, the new bridge would maintain the alignment and vertical profile of the existing bridge, and would not increase capacity in the project area. Additionally, 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.

Avoidance, Minimization, and/or Mitigation Measures

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

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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Does the Project have impacts that are individually limited but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a Project are considerable when viewed in connection with the effects of past Projects, the effects of other current Projects, and the effects of probable future Projects.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Does the Project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Regulatory Setting

There are no federal, state, or local regulations applicable to the CEQA analysis for this project.

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. Project improvements would replace the structurally deficient Chiles Pope Bridge to provide a safe, functional, and reliable crossing over Chiles Creek on Chiles Pope Valley Road. According to the NES prepared for the project, special-status plant species and animals have the potential to be in the BSA, and could be impacted as a result of the project.

Demolition of the existing bridge over Chiles Creek, replacement of the existing bridge with a new bridge structure, and construction of retaining walls could result in temporary and permanent impacts on special-status plants and animals if they are present in the construction area. However, with implementation of avoidance, minimization, and/or mitigation measures **BIO-1** through **BIO-48**, impacts would be less than significant.

- 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.)

Less Than Significant with Mitigation Incorporated. The project could have potential impacts on biological resources and hydrology/water quality. Therefore, the project could contribute to cumulative impacts on these resources. The geographic boundary for cumulative impacts is the Napa Valley Transportation Authority (NVTa) region. Other current and reasonably foreseeable transportation projects in the region are listed in the NVTa Overall Work Program (OWP) 2017-2018 (Napa Valley Transportation Authority, 2018).

The project's potential impacts would be less than significant or reduced to less than significant with implementation of avoidance, minimization, and/or mitigation measures. Therefore, with implementation of measures **BIO 1-48** and **WQ 1-7**, the project's contribution to cumulative impacts would not be cumulatively considerable.

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

Less Than Significant with Mitigation Incorporated. The Initial Study analysis shows that 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, transportation, and tribal cultural resources would all be reduced with implementation of avoidance, minimization, and/or mitigation measures **BIO 1-48; CUL 1-2; HAZ 1-2; TRAN 1-2; TCR 1-5; WQ 1-7**. Therefore, with implementation of these measures, impacts would be less than significant.

VI. List of Preparers

The following staff assisted in the preparation of this document:

Napa County Department of Public Works

James Reese, P.E., Civil Engineer

GPA Consulting

Melissa Logue, Senior Associate Environmental Planner

Marieka Schrader, Senior Associate Biologist

Angela Scudiere, Senior Biologist

Anastasia Shippey, Associate Biologist

Hannah Hart, Biologist

Alen Estrada-Rodas, Environmental Planner

Biggs Cardosa Associates

Ron Oen, Principal

Nikhil Patel, Staff Engineer

VII. References

- Avila and Associates, Consulting Engineers, Inc. (2020). *Chiles Pope Bridge Replacement - Water Quality Memorandum*.
- Bay Area Air Quality Management District. (2017). *Air Quality Standards and Attainment Status*. Retrieved from <http://www.baaqmd.gov/rules-and-compliance/current-rules>
- Calfire. (2007). *Fire Hazard Severity Zones in SRA*.
- California Air Resources Board. (2017, August 10). *California Ambient Air Quality Standards*. Retrieved from <https://www.arb.ca.gov/research/aaqs/caaqs/caaqs.htm>
- California Air Resources Board. (2019). *California Greenhouse Gas Emission Inventory - 2018 Edition*. Retrieved November 30, 2015, from <http://www.arb.ca.gov/cc/inventory/data/data.htm>
- California Board of Forestry and Fire Protection. (2010). *State Responsibility Area Viewer*. Retrieved January 2019, from http://www.fire.ca.gov/firepreventionfee/sraviewer_launch
- California Coastal Commission. (2019). *Maps - Coastal Zone Boundary*. Retrieved from <https://www.coastal.ca.gov/maps/czb/>
- California Department of Conservation . (2019). *CGS Information Warehouse: Regulatory Maps*. Retrieved from <https://maps.conservation.ca.gov/cgs/informationwarehouse/regulatorymaps/>
- California Department of Conservation. (2010). *Geologic Map of California*. Retrieved February 13, 2018, from California Department of Conservation: Interactive Maps: <http://maps.conservation.ca.gov/cgs/gmc/>
- California Department of Conservation. (2015). *Napa County Williamson Act FY 2015/2016*. Retrieved from Reports and Statistics: https://www.conservation.ca.gov/dlrp/wa/Pages/stats_reports.aspx
- California Department of Conservation. (2017). *Napa County Important Farmland 2016*. Retrieved from Farmland Mapping & Monitoring Program: <https://www.conservation.ca.gov/dlrp/fmmp/Pages/Napa.aspx>
- California Department of Conservation, D. o. (2015, November 3). *The Land Conservation Act*. Retrieved from <http://www.conservation.ca.gov/dlrp/lca>
- California Department of Fish and Wildlife. (2015). *Timberland Conservation Program*. Retrieved from <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109917&inline>
- California Department of Fish and Wildlife. (2018, January 26). *Biogeographic Information and Observation System*. Retrieved from California Department of Fish and Wildlife: <https://www.wildlife.ca.gov/Data/BIOS>.
- California Department of Fish and Wildlife. (2018, August 27). *Query for Brooks, Aetna Springs, Capell Valley, Chiles Valley, Lake Berryessa, Rutherford, St. Helena, Walter Springs and Yountville*. Retrieved from California Department of Fish and Wildlife: <https://www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data>.

- California Department of Fish and Wildlife. (2020, March 10). *California Fish and Game Commission Notice of Findings for Foothill Yellow-Legged Frog (Rana boylii)*. Retrieved from California Department of Fish and Wildlife: <https://fgc.ca.gov/CESA#fylf>
- California Department of Forestry and Fire Protection. (2013). *Wildfire Protection*. Retrieved from State of California Office of the State Fire Marshal: <http://osfm.fire.ca.gov/codedevelopment/wildfireprotection>
- California Department of Water Resources. (2003, October). *California's Groundwater Bulletin 118: Chapter 7 Inventory of California's Groundwater Information*. Retrieved from California Department of Water Resources: https://www.water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Bulletin-118/Files/Statewide-Reports/Bulletin_118_Update_2003.pdf
- California Department of Water Resources. (2014, June 30). *Napa-Sonoma Valley Groundwater Basin, Napa Valley Subbasin*. Retrieved from <https://www.water.ca.gov/LegacyFiles/groundwater/bulletin118/basindescriptions/2-02.01.pdf>
- California Department of Water Resources. (2015, May 18). *Basin Prioritization*. Retrieved from California Department of Water Resources: Groundwater Management: <https://www.water.ca.gov/Programs/Groundwater-Management/Bulletin-118/Basin-Prioritization>
- California Geological Survey. (2002). *California Geomorphic Provinces*. Retrieved from State of California Department of Conservation: CGS Information: http://www.conservation.ca.gov/cgs/information/publications/cgs_notes/Documents/Note_36.pdf
- California Native Plant Society. (2018, January 26). *Inventory of Rare and Endangered Plants*. Retrieved from CNPS: <http://www.rareplants.cnps.org/>.
- California Natural Resources Agency. (2014). *Article 5. Preliminary Review of Projects and Conduct of Initial Study*. Retrieved from Title 14. California Code of Regulations - Chapter 3. Guidelines for Implementation of the California Environmental Quality Act: <http://resources.ca.gov/ceqa/guidelines/art5.html>
- Department of Toxic Substance Control. (2019). *EnviroStor*. Retrieved from <https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=Napa+County>
- Federal Emergency Management Agency. (2008, September 26). *FEMA Flood Map Service*. Retrieved from FEMA: <https://msc.fema.gov/portal>
- GPA Consulting. (2019). *Historic Property Survey Report*. Los Angeles.
- GPA Consulting. (2019). *Traffic Memorandum*.
- GPA Consulting. (2020). *BRLS-5921(074) Chiles-Pope Bridge Replacement Project: Hazardous Materials Memorandum*.

- GPA Consulting. (2020). *BRLS-5929(074) Chiles Pope Bridge Replacement - Brief Visual Impacts Assessment Memorandum*.
- GPA Consulting. (2020). *Chiles Pope Bridge Replacement Project - Traffic and Noise Memorandum*.
- Jepson Herbarium. (2018, February 2). *Jepson eFlora*. Retrieved from Jepson Herbarium:
http://ucjeps.berkeley.edu/jepson_flora_project.html.
- Luhdorff & Scalmanini Consulting Engineers. (2016, December 13). *Chapter 2 Physical Setting and Hydrogeology*. Retrieved from Napa Valley Groundwater Sustainability: A Basin Analysis Report for the Napa Valley Subbasin:
https://www.napawatersheds.org/files/managed/Document/8266/Napa%20Valley%20Subbasin%20Basin%20Analysis%20Report_2016_sm.pdf
- Michigan State University. (2002). *K Factor*. Retrieved February 14, 2018, from Revised Universal Soil Loss Equation (RUSLE), On Line Soil Erosion Assessment Tool:
<http://www.iwr.msu.edu/rusle/kfactor.htm>
- Napa County. (2013). *Napa County General Plan*. Retrieved from Napa County:
<https://www.countyofnapa.org/DocumentCenter/View/3334/Napa-County-General-Plan---Complete-Documnt-PDF>.
- Napa County. (2013, June 4). *Napa County General Plan*. Retrieved February 2018, from Napa County Californai: <https://www.countyofnapa.org/DocumentCenter/View/3334>
- Napa County. (2015, January 23). *Napa County Zoning*. Retrieved from Planning Division:
<https://www.countyofnapa.org/DocumentCenter/View/8436/Napa-County-Zoning-Map?bidId=>
- Napa County. (2016, December 20). *Land Use Map*. Retrieved from Napa County Land Use Plan, 2008 - 2030: <https://www.countyofnapa.org/DocumentCenter/View/8492/-General-Plan-Map-for-County-of-Napa-PDF->
- Napa County. (2016). *Napa County Land Use Plan 2008-2030*. Retrieved from Napa County:
<https://www.countyofnapa.org/DocumentCenter/View/8492/-General-Plan-Map-for-County-of-Napa-PDF>.
- Napa County. (2017). *Code of Ordinances Artilec IV. Floodplain and Riparian Zone Management*. Retrieved from Napa County:
https://library.municode.com/ca/napa_county/codes/code_of_ordinances?nodeId=TIT16EN_C H16.04FLMA_ARTIVFLRIZOMA_16.04.750RIZOESAC.
- Napa County. (2017, December 14). *Stormwater Management and Discharge Control*. Retrieved February 9, 2018, from Napa County, CA Code of Ordinances:
https://library.municode.com/ca/napa_county/codes/code_of_ordinances?nodeId=TIT16EN_C H16.28STMADICO
- Napa County. (2018, February). *Stormwater Program*. Retrieved February 14, 2018, from Napa County, CA Flood & Water Resources: <https://www.countyofnapa.org/1351/Stormwater-Program>

- Napa County. (2019). *2005 Baseline Data Report*. Retrieved from Napa watersheds:
<https://www.napawatersheds.org/baseline-data-report>
- Napa County. (2020, February 4). *Napa County Road & Street Standards*. Retrieved from
<https://www.countyofnapa.org/DocumentCenter/View/3787/Napa-County-Road-and-Street-Standards---2019-PDF?bidId=>
- Napa County. (2021, August 20). *Planning Commission Agendas & Minutes*. Retrieved from County of Napa: <https://services.countyofnapa.org/AgendaNetDocs/Agendas/PlanningAgenda/6-2-2021/7B.pdf>
- Napa County Department of Conservation, Development and Planning. (2008). *Napa County General Plan*. Napa.
- Napa County Flood Control and Water Conservation District. (2009). *Napa County Watersheds*. Retrieved from County of Napa: <https://www.countyofnapa.org/DocumentCenter/View/2635>
- Napa County Municipal Code. (2019a). *Section 8.16.070*. Retrieved from
https://library.municode.com/ca/napa_county/codes/code_of_ordinances?nodeId=TIT8HESA_C8.16NOCORE_8.16.070EXNOLI
- Napa County Planning, Building & Environmental Services. (2019). *Parcel Data Report*. Retrieved from
<https://www.countyofnapa.org/1935/Parcel-Data-Report>
- Napa County Resource Conservation District. (2018). *Understanding Watersheds*. Retrieved from Napa County RCD: <http://naparcd.org/resources-documents/understanding-watersheds/>
- Napa Valley Transportation Authority. (2018). *Overall Work Program*. Retrieved from
<https://www.nvta.ca.gov/sites/default/files/OWP-%202017-18.pdf>
- National Marine Fisheries Service. (2018, July 25). *California Species List Tool*. Retrieved from National Marine Fisheries:
http://www.westcoast.fisheries.noaa.gov/maps_data/california_species_list_tools.html.
- National Marine Fisheries Service. (2018, July 26). *Essential Fish Habitat Mapper*. Retrieved from National Marine Fisheries Service: <https://www.habitat.noaa.gov/protection/efh/efhmapper/>.
- PaleoWest. (2021). *Historic Property Survey Report and Archaeological Survey Report, Chiles Pope Valley Bridge Replacement Project*. Walnut Creek.
- Rosgen, D. (1996). *Applied River Morphology*. Pagosa Springs, CO: Wildland Hydrology.
- San Francisco Bay Regional Water Quality Control Board. (2017, December 18). *Basin Plan: Chapter 2: Beneficial Uses*. Retrieved from California Water Boards San Francisco Bay - R2:
https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/planningtmdls/basinplan/web/bp_ch2.html
- State Water Resources Control Board. (2015). *GeoTracker*. Retrieved from
<https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=napa>

- UC Davis Sustainability Indicators Group. (2018a, February 12). *Conn Creek*. Retrieved February 12, 2018a, from California Water Sustainability:
<https://indicators.ucdavis.edu/water/regions/1805000201>
- UC Davis Sustainability Indicators Group. (2018b, February 12). *Chiles Creek*. Retrieved February 12, 2018, from California Water Sustainability:
<https://indicators.ucdavis.edu/water/regions/180500020101>
- United States Department of Agriculture. (2007, May). *Chapter 7 Hydrologic Soil Groups*. Retrieved February 14, 2018, from
<https://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba>
- United States Department of Agriculture. (2018, February 14). *Custom Soil Resource Report for Napa County*. Retrieved from Natural Resources Conservation Service, Web Soil Survey:
https://websoilsurvey.sc.egov.usda.gov/WssProduct/gjvo4gplqyncmcuznxpprhqg/GN_00000/20180214_10371710982_5_Soil_Report.pdf
- United States Department of Agriculture, Soil Conservation Service. (1990). *Soil Survey of Merced County, Wester Part*. Retrieved from Natural Resources Conservation Service, USDA:
https://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/california/CA647/0/merced.pdf
- United States Environmental Protection Agency. (2017). *Sources of Greenhouse Gas Emissions*. Retrieved November 30, 2015, from
<http://www3.epa.gov/climatechange/ghgemissions/sources/transportation.html>
- United States Fish and Wildlife Service. (2002). *Recovery Plan for the California Red-Legged Frog (Rana aurora draytonii)*. Retrieved from USFWS:
https://www.fws.gov/carlsbad/SpeciesStatusList/RP/20020528_RP_CRLF.pdf.
- United States Fish and Wildlife Service. (2013, December 2). *Migratory Bird treaty Act Protected Species (10.13 List)*. Retrieved from USFWS: <https://www.fws.gov/birds/management/managed-species/migratory-bird-treaty-act-protected-species.php>.
- United States Fish and Wildlife Service. (2017, December). *Migratory Bird treaty Act: Birds Protected*. Retrieved from USFWS: <https://www.fws.gov/birds/policies-and-regulations/laws-legislations/migratory-bird-treaty-act.php>.
- United States Fish and Wildlife Service. (2017). *Species Information: California Red-legged Frog*. Retrieved from USFWS Sacramento Fish and Wildlife Office:
https://www.fws.gov/sacramento/es_species/Accounts/Amphibians-Reptiles/ca_red_legged_frog/.
- United States Fish and Wildlife Service. (2018, August 27). *Information for Planning and Consultation*. Retrieved from U.S. Fish and Wildlife Service: <https://ecos.fws.gov/ipac/location/index>.
- United States Forest Service. (2019). *Forest Service Visitor Map*. Retrieved from United States Department of Agriculture - U.S. Forest Service: <https://www.fs.fed.us/ivm/index.html>

United States Geological Survey. (1989). *Swelling Clays Map of the Conterminous United States*.

Retrieved from National Geologic Map Database:

https://ngmdb.usgs.gov/Prodesc/proddesc_10014.htm

Watershed Information and Conservation Council. (2015, October). *Groundwater Subareas: Eastern Mountains and Western Mountains*. Retrieved February 13, 2018, from WICC Groundwater:

https://www.napawatersheds.org/app_pages/view/7256

Watershed Information and Conservation Council. (2018). *WICC Interactive Map*. Retrieved from WICC Napa County: https://www.napawatersheds.org/app_pages/view/22

VIII. List of Technical Studies

The following studies were prepared for this environmental document:

- Avila and Associates, Consulting Engineers, Inc. *Chiles Pope Bridge Replacement Project – Water Quality Memorandum*. May 2020
- GPA Consulting. *Chiles Pope Bridge Replacement Project - Biological Assessment*. October 2019
- GPA Consulting. *Chiles Pope Bridge Replacement Project - Equipment Staging Memorandum*. May 2020
- GPA Consulting. *Chiles Pope Bridge Replacement Project – Hazardous Materials Memorandum*. March 2020
- GPA Consulting. *Chiles Pope Bridge Replacement Project - Land Use and Community Impacts Memorandum*. May 2021
- GPA Consulting. *Chiles Pope Bridge Replacement Project – Natural Environment Study*. October 2019
- GPA Consulting. *Chiles Pope Bridge Replacement Project – Traffic and Noise Memorandum*. May 2020
- GPA Consulting. *Chiles Pope Bridge Replacement Project – Brief Visual Impacts Assessment Memorandum*. April 2020
- PaleoWest. *Chiles Pope Bridge Replacement Project – Historic Property Survey Report and Archaeological Survey Report*. January 2021.