DRAFT

Initial Study and Mitigated Negative Declaration

Bothe-Napa Valley State Park – Day Use Road/Bothe State Park Road-Ritchey Creek Fish Passage Barrier Removal Project

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Napa County, California

Lead Agency:

California Department of Parks and Recreation
845 Casa Grande Road
Petaluma, CA 94954-5804
(707) 338-4101

Prepared By:

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS
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Rocklin, California 95677

June 2025

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DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Project: Bothe-Napa Valley State Park – Day Use Road/Bothe State Park Road-Ritchey Creek Fish Passage Barrier Removal Project

Lead Agency: California State Parks

Availability of documents: The Initial Study for this Mitigated Negative Declaration is available for review at:

California Department of Parks and Recreation- Bay Area District
845 Casa Grande Road
Petaluma, CA 94954-5804

Project Description:

The Bothe-Napa Valley State Park (BNVSP) Day Use Road/Bothe State Park Road-Ritchey Creek Fish Passage Barrier Removal Project (Project) is a proposed reconstruction of a road and bridge crossing over Ritchey Creek to restore fish passage in the BNVSP.

Overall design will involve restoring the channel by reconstructing the road crossing with a natural bottom structure. This will require the removal of two 60" culverts, concrete road crossing, and associated footings, creek channel grading in the vicinity of the bridge crossing, construction of replacing the existing facilities with a natural bottom box culvert and constructing an engineered streambed with natural materials at natural grade, construction of a retaining wall, and re-paving of the day use and campground roads in the vicinity of improvements.

Public Review Period:

A copy of the Initial Study is attached. Questions or comments regarding this Initial Study/Mitigated Negative Declaration may be addressed to:

California Department of Parks and Recreation- Bay Area District

845 Casa Grande Road

Petaluma, Ca 94954-5804

(707) 338-4101

bayareanaturalresources@parks.ca.gov

Submission must be in writing and postmarked or received by mail or e-mail no later than **July 16, 2025.**

Pursuant to Section 21082.1 of the California Environmental Quality Act, the California Department of Parks and Recreation (DPR or California State Parks) has independently reviewed and analyzed the Initial Study and Draft Negative Declaration for the proposed project and finds that these documents reflect the

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independent judgment of DPR. DPR, as lead agency, also confirms that the project mitigation measures detailed in these documents are feasible and will be implemented as stated in the Negative Declaration.

DocuSigned by:
A319E8AFA44B4C6...
District Superintendent — 6/12/2025 Date

DocuSigned by:
Caitlin Powers
3A96BBCA0525470...
Environmental Coordinator — 6/11/2025 Date

Mitigation Measures Incorporated into the Project to Avoid Significant Effects:

Biological Resources

BIO-1: **Special-Status Plant Species.** If special-status plants are identified within 50 feet of the Project impact area, implement the following measures:

- If avoidance of special-status plants is feasible, establish and clearly demarcate avoidance zones for special-status plant occurrences prior to construction and maintain until the completion of construction. Avoidance zones shall include the extent of the special-status plants plus a 50-foot buffer, unless otherwise determined by a qualified biologist. No ground- or vegetation-disturbing activities will occur within avoidance zones. A qualified biologist/biological monitor shall be present if work must occur within the avoidance buffer to ensure special-status plants are not impacted by the work.
- If avoidance of special-status plants is not feasible, the following measures shall be incorporated:
  - The Project impact limits shall be clearly demarcated prior to construction and all workers shall be made aware of the impact limits and avoided areas. No work shall occur outside of the Project impact limits. All vehicles and equipment shall be restricted to the Project impact limits and/or existing designated access roads and staging areas.
  - Establish and clearly demarcate avoidance zones for any special-status plant species identified during the preconstruction survey prior to construction and designate as environmentally sensitive areas. Avoidance zones shall include the extent of special-status plants plus a 10-foot buffer and shall be maintained until the completion of construction. A qualified biologist or biological monitor shall be present if work must occur within the avoidance buffer to ensure special-status plants are not impacted by the work.
  - Clothing, vehicles, and equipment (including shoes and the undercarriage and tires/tracks) should be cleaned prior to entering the Project Site, and materials used for the Project (such as fill dirt or erosion control materials) should be from certified sources to avoid the introduction and spread of invasive plant species.

BIO-2: **California Freshwater Shrimp.** A qualified biologist with experience conducting surveys for California freshwater shrimp shall survey the Project Area (including any temporary dewatering and/or coffer dam installation) prior to dewatering activities. Surveys shall follow the methods outlined in Serpa 1991 and Fong 1999. If California freshwater shrimp are detected during these surveys, State Parks will contact the Service for direction prior to working within Ritchey Creek. If no shrimp are found during these surveys, no further action will be required.

BIO-3: **Special Status Fish.** To avoid impacts to special-status fish species, the following measures shall be implemented:

- Comply with the dewatering and diversion plan for dewatering activities that includes fish rescue methods for special-status fish species and other special-status species with the potential to be found within Ritchey Creek.
- A qualified biologist shall be present for dewatering activities and will capture and relocate any fish that are found within the dewatered area. The qualified biologists will capture and relocate any fish that are found within the dewatered area.
- To ensure the lowest likelihood of fish impacts, Project activities will occur at the low flow time of year.
- Prior to dewatering, the Project Area will be surveyed for fish by a qualified fisheries biologist who is permitted under the CDFW 4(d) Research Program, holds a CDFW State Scientific Collection Permit, and is familiar with the life history and identification of salmonids, State-listed fish, and listed amphibians within the Project Area. The qualified fisheries biologist shall have a minimum of three years of field experience in the identification and capture of salmonids, including juvenile salmonids.
- The fisheries biologist shall perform all seining, electrofishing, and fish relocation activities in Ritchey Creek according to the measures listed in Section 1.3.7.1c-e of the federal Endangered Species Act Section 7(a)(2) Biological Opinion, and the Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for the Program for Restoration Projects within the National Oceanic and Atmospheric Administration Restoration Center's Central Coastal California jurisdictional area in California. The fisheries biologist shall initiate fish surveying and necessary relocations several days prior to the start of construction of the cofferdam. The fisheries biologist will be available during construction activities to perform subsequent relocations if necessary; all subsequent captures and relocations will follow the measures in Section 1.3.7.1b-e of the Programmatic Approach. Any captured fish will be placed back into Ritchey Creek downstream of the Project disturbance area with strict adherence to the guidelines defined in Section 1.3.7.1b of the Programmatic Approach.
- Prior to construction initiation, a biologist with understanding of the listed fish in the Project Area, as approved by the fisheries biologist and State Parks, shall conduct a training session for all construction and park personnel that will be involved in the construction of the Project. At a minimum, the training shall include a description of rainbow trout/steelhead and its habitat, the importance of the species and habitat, the general measures being implemented to conserve the species as they relate to the Project, and the physical boundaries within which the Project may be accomplished. The training session will include instruction in the appropriate protocol to follow in the event that one of the listed species is observed onsite. Brochures, books, and briefings may be

used in the training session, provided that a qualified person is on hand to answer any questions. Handouts with species photos will be provided to construction personnel.

- The Project shall be in compliance with Fish and Game Code section 5901 and shall not install or maintain any device or contrivance that prevents, impedes, or tends to prevent or impede the passing of fish up and down stream.

BIO-4: **Special-Status Amphibians and Reptiles.** To avoid impacts to special-status amphibians and reptiles, the following measures shall be implemented:

- A qualified biologist shall perform a pre-construction survey within 24 hours prior to the initiation of construction to confirm whether the site is clear of California giant salamander, California red-legged frog (CRLF), foothill yellow-legged frog (FYLF), red-bellied newt, and northwestern pond turtle (NWPT). Should California giant salamander, FYLF, red-bellied newt, or NWPT be detected during the survey, a qualified biologist with a scientific collecting permit shall relocate individuals to suitable nearby habitat that won't be disturbed by Project construction.
- A qualified biologist will be onsite during dewatering activities, initial ground-disturbance, and culvert removal to monitor special-status amphibians and reptiles. If any special-status amphibians or reptiles are discovered during these activities, the qualified biologist shall request all work to cease and will relocate all species, except for CRLF and NWPT, to the nearest appropriate habitat outside of the Project Area. If CRLF or NWPT are discovered during these activities, all work shall cease and Section 7 consultation shall be initiated.
- Construction activities will occur during the non-breeding season for CRLFs (June–October).
- A USFWS approved biologist(s) shall conduct training session(s) for all construction and park personnel that will be involved in the construction of the Proposed Project. The training will include all sensitive species onsite, as well as their habitats, the importance of the species and habitats, the general measures being implemented to conserve the species as they relate to the Project, and the physical boundaries within which the Project may be accomplished. The training session will include instruction in the appropriate protocol to follow in the event that a federally listed species is observed onsite. Informational handouts with species photos will be provided to. construction personnel.
- Prior to being brought onsite, all vehicles and machinery will be inspected for fluid leaks by the contractor. No vehicles or machinery exhibiting signs of leaking fluid will be brought onsite. All fueling and maintenance of vehicles and other equipment and staging areas will occur away from any riparian habitat or water body.
- Dewatering activities shall be completed under the supervision of an agency approved qualified biologist. during dewatering structure installation, a fine mesh screen (no larger

than 3 millimeters) will be placed over the intake to the pump that will be used in the cofferdam area to ensure that no listed frogs or other species are taken at the pump.

- At the time of dewatering, water shall be released or pumped downstream at an appropriate rate to avoid adversely affecting downstream flows. Upon the completion of construction activities, any barriers to flow shall be removed in a manner that would allow flow to resume with the least disturbance to the substrate.
- An agency approved biologist(s) will monitor onsite compliance with all minimization measures during the work hours each day and during all construction activities. The monitor shall have the authority to halt any action that might result in affects to any State or federally listed species.
- All vegetation removal shall be completed under the supervision of an agency approved biologist(s). Stumps, rocks, logs, or other habitat features moved during the Proposed Project construction will be done so very carefully, under the observance of the approved biologist(s), and will be replaced in adjacent suitable habitat or stored for re-use in the revegetation phase.
- The number of access routes, number and size of staging areas, and the total area that will be affected by the Project activities shall be limited to the minimum necessary to achieve the Proposed Project goal. The contractor shall keep all Project activity and equipment within designated staging and work areas.
- To avoid attracting predators of federally listed species, all food-related trash will be kept in closed containers and removed from the site at the end of each day. Care will be taken to minimize trash or food waste in the work area as well. All construction material, wastes, debris, sediment, rubbish, vegetation debris, trash, fencing, etc. will be removed from the site upon Project completion.
- All construction-related holes, which are capable of entrapping wildlife, will be covered at the end of each workday by the biological monitor in a manner that will prevent entrapment.
- Exclusionary materials will be selected that do not include plastic monofilament mesh or other features that might lead to entrapment, injury, or death of federally listed species.
- The agency approved qualified biologist will conduct a post-construction survey immediately prior to the cofferdam removal to ensure that federally listed species have not occupied the temporary pool created upstream of the site. If any listed species are present, removal of the dam materials will be delayed until the species moves on its own accord out of the Project Area.
- The appropriate agencies will be immediately notified via telephone or electronic mail if any listed species are found within the Proposed Project action area.
- The agency approved qualified biologist will submit a summary of survey activities upon completion to the USFWS.

BIO-5: Special-Status Bats.

- If tree or vegetation removal will occur, bat roost surveys shall be conducted by a qualified wildlife biologist within 14 days prior to any Project initiation. Locations of vegetation and tree removal or excavation will be examined for potential bat roosts. Specific survey methodologies will be determined in coordination with CDFW, and may include visual surveys of bats (e.g., observation of bats during foraging period), inspection for suitable habitat, bat sign (e.g., guano), or the use of ultrasonic detectors (e.g., SonoBat, Anabat).
- Contractor shall minimize disturbance of any roost sites found.
- If it is determined that an active roost site cannot be avoided, CDFW will be notified and consulted on appropriate bat exclusion methods and roost removal procedures. Once it is confirmed that all bats have left the roost, no further measures pertaining to bats will be necessary.
- If no active bat roosts are found during the pre-construction survey, no further measures relating to special-status bats will be necessary.

BIO-6: Biological Monitoring.

- State Parks and the agency approved biologist(s) shall designate a person(s) to be a full-time biological monitor(s) to monitor onsite compliance with all minimization measures during project construction. The USFWS permitted biologist shall ensure that the biological monitor receives training in the identification of all sensitive species within the Project Area. See Appendix A for further details.

Cultural Resources

CUL-1: Cultural Monitoring Plan. A comprehensive Cultural Monitoring Plan will be implemented for the Project that will include both construction and long-term post-construction monitoring. Monitoring will be conducted by a qualified archaeologist and a Native American representative who is affiliated with the area.

Construction monitoring will be implemented at the discretion of the California State Parks archaeologist and will focus on those locations where trail construction is adjacent to archaeological sites. With assistance from a tribal representative, the State Parks archaeologist will monitor other construction activities as deemed necessary.

CUL-2: Use of Rubber Mats. Rubber mats will be laid on the soil along the path that will be used by construction vehicles and heavy equipment. The mats will be laid prior to any ground disturbing work.

CUL-3: Cultural Awareness Training. All workers, regardless of location, shall receive worker awareness cultural resources sensitivity training prior to construction. The training program should be developed by an archaeologist who meets the Secretary of the Interior's

Professional Qualifications Standards for archaeology and include relevant information regarding sensitive cultural resources and tribal cultural resources (TCRs), as well as the applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The training program should also describe appropriate avoidance and impact minimization measures for cultural resources and TCRs that may be located within the Project boundary and provide guidance on the procedures to follow if any cultural resources or tribal resources are encountered.

CUL-4: **Human Remains.** In the event of a discovery of human remains, whether intact, fragmentary, or displaced from their original context, the Napa County coroner and the Native American Heritage Commission (NAHC), Napa County (707-253-4256), shall be notified of the discovery immediately, and all work in the vicinity of the find shall cease, as determined by the archaeologist. There shall be no further excavation or disturbance of the find site or any nearby area reasonably suspected to overlie adjacent remains until the Napa County coroner has determined whether the remains are those of a Native American. If the remains are determined to be Native American, the coroner must contact the California NAHC. Public Resources Code (PRC) Section §5097.98 specifies the procedures to be followed in the event of a discovery of human remains on non-federal land. The disposition of Native American burials is within the jurisdiction of the NAHC. Upon request, the NAHC will provide the Project director with a list of most likely descendants, who will specify the treatment and disposition of any Native American remains found within the area of potential effect of the Project. Final disposition of the human remains will be subject to the approval of the landowner. Human remains and associated grave goods are protected under PRC § 5097.94 and Health and Safety Code § 7050.5.

Tribal Cultural Resources

TCR-1: **Tribal Monitoring.** A qualified archaeologist will provide monitoring during all ground disturbing construction activities. Additionally, a tribal monitor will be invited to provide monitoring during ground disturbing construction activities. The tribal monitor shall have the authority to temporarily pause ground disturbance within 50 feet of the discovery for a duration long enough to examine potential TCRs that may become unearthed during the activity. If no TCRs are identified, then construction activities shall proceed and no agency notifications are required. In the event that a TCR is identified, the monitor shall flag off the discovery location and notify State Parks immediately to consult on appropriate and respectful treatment. The State Parks shall also serve to mediate any conflicts between the tribe and Project proponent during work stoppages. Upon conclusion of the monitoring, the monitor shall submit a letter report to the State Paks to document the monitoring methods and results.

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Appendix B – *Biological Resources Assessment for the Ritchey Creek Day-Use Road Culvert Replacement Project* ECORP Consulting, Inc. DRAFT

Appendix C – *Special-Status Plant Survey Report for the Ritchey Creek Day-Use Road Culvert Replacement Project* ECORP Consulting, Inc. September 27, 2023

Appendix D –*Aquatic Resources Delineation Report, Culvert Replacement Project, Bothe Napa Valley State Park, Napa County, California* Nomad Ecology, May 2021

Appendix E – *Archaeological Presence/Absence Testing for the Bothe-Napa Valley Day Use Bridge Replacement*. **CONFIDENTIAL REPORT** – Not included in the public review draft.

Appendix F – Emissions Modeling Outputs, ECORP Consulting, Inc. 2024

Appendix G – Roadway Construction Noise Model ECORP Consulting, Inc., April 2024

Appendix H – Plan Sheets

ACRONYMS AND ABBREVIATIONS

Term	Definition
˚F	degrees Fahrenheit
AB	Assembly Bill
ANSI	American National Standards Institute
ARD	Aquatic Resources Delineation
BAAQMD	Bay Area Air Quality Management District
BMP	Best Management Practice
BNVSP	Bothe-Napa Valley State Park
BO	Biological Opinion
BP	Years before present
BRA	Biological Resource Assessment
BSA	Biological Study Area
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH4	methane
CNEL	Community Noise Equivalence Levels
CNPS	California Native Plant Society

Term	Definition
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CRLF	California red-legged frog
CWA	Clean Water Act
dB	decibels
dBA	A-weighted decibels
DC	Direct Current
DOC	California Department of Conservation
DPM	diesel particulate matter
DPR	California Department of Parks and Recreation
DTSC	California Department of Toxic Substances Control
ECORP	ECORP Consulting, Inc.
EFH	Essential Fish Habitat
EIR	Environmental Impact Report
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FMC	Fishery Management Council
FTA	Federal Transit Administration
FYLF	foothill yellow-legged frog
GHG	greenhouse gas
GIS	Geographic Information Systems
GPS	GPS
IS/MND	Initial Study/Mitigated Negative Declaration
L_{dn}	average daily noise level
L_{eq}	average hourly noise level
LF	linear feet
LSAA	Lake and Streambed Alteration Agreement
MBTA	Migratory Bird Treaty Act
MCV	Manual of California Vegetation
MJHMP	Multi-Jurisdictional Hazard Mitigation Plan Update
MLD	Most Likely Descendant
MM	Mitigation Measure
MND	Mitigated Negative Declaration
MOA	Memorandum of Agreement
mph	miles per hour
MSFCMA	1996 Magnuson-Stevens Fishery Conservation and Management Act
N_2O	nitrous oxide

Term	Definition
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NO_x	Nitrogen Oxide
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NPS	U.S. National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWPT	northwest pond turtle
O_3	Ozone
OHWM	Ordinary High Water Mark
PBFs	Physical and Biological Features
PG&E	Pacific Gas and Electric Company
PM	Particulate Matter
PM_{10}	Particulate Matter Less than 10 Microns in Diameter
$PM_{2.5}$	Particulate Matter Less than 2.5 Microns in Diameter
PPV	Peak particle velocity
PRC	Public Resources Code
Project	Bothe-Napa Valley State Park – Day Use Road/Bothe State Park Road-Ritchey Creek Fish Passage Barrier Removal Project
PSR	Project Specific Requirement
PSRs	Project Specific Requirements
ROG	Reactive Organic Gases
RPS	Renewable Portfolio Standards
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SFBAAB	San Francisco Bay Area Air Basin
SFBRWQCB	San Francisco Bay Regional Water Quality Control Board
SIP	State Implementation Plan
SPR	Standard Project Requirements
SR	State Route
SRA	State Responsibility Area
State Parks	California Department of Parks and Recreation
STU	Shovel Test Unit
SWPPP	Stormwater Pollution Prevention Plan
TAC	toxic air contaminant
TCP	Traditional Cultural Property
TCRs	Tribal cultural resources

Term	Definition
Trenches	Backhoe Trenches
USACE	U.S. Army Corps of Engineers
USC	United States Code
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
VMT	Vehicle Miles Traveled

1.0 BACKGROUND

1.1 Summary

Project Title:	Bothe-Napa Valley State Park – Day Use Road/Bothe State Park Road-Ritchey Creek Fish Passage Barrier Removal Project
Lead Agency Name and Address:	California Department of Parks and Recreation
Contact Person and Phone Number:	Christina Freeman (707) 338-4101
Project Location:	Bothe-Napa Valley State Park St Helena Highway Calistoga, CA 94515
General Plan Designation:	Parks/Dedicated Open Space – Napa County Land Use Plan
Zoning:	AW – Agricultural Watershed District Z

1.2 Introduction and Regulatory Guidance

The California Department of Parks and Recreation (State Parks) is the Lead Agency for the Proposed Bothe-Napa Valley State Park (BNVSP) Day Use Road/Bothe State Park Road-Ritchey Creek Fish Passage Barrier Removal Project (Project) in Napa County, California. This Draft Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared by ECORP Consulting, Inc. (ECORP) to identify and assess the potential environmental impacts of the Proposed Project and has been prepared to satisfy requirements of the California Environmental Quality Act (CEQA) (Public Resources Code [PRC], Section 21000 et seq.) and State CEQA Guidelines (14 California Code of Regulations [CCR] 15000 et seq.). CEQA requires that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before acting on those projects. An Initial Study (IS) is typically prepared to determine which CEQA document is appropriate for a project (i.e., typically an IS leads to either a Negative Declaration, Mitigated Negative Declaration (MND), or Environmental Impact Report [EIR]). If the Lead Agency determines that project plans or proposals made by or agreed to by State Parks mitigate the potentially significant impacts to a less-than-significant level, an MND may be prepared instead of an EIR (CEQA Guidelines 15070[b]). This Draft IS/MND is a written statement describing the reasons the Proposed Project would not have a significant effect on the environment, and therefore, why an EIR need not be prepared. This Draft IS/MND also conforms to the content requirements under CEQA Guidelines 15071.

1.3 Lead Agency

The Lead Agency is the public agency with primary approval authority over the Proposed Project. In accordance with CEQA Guidelines 15051(b)(1), "the lead agency will normally be an agency with general governmental powers, such as a city or county, rather than an agency with limited purpose." The Lead Agency for the Proposed Project is State Parks.

The contact person for the Lead Agency is:

Christina Freeman, Senior Environmental Scientist
Natural Resource Program
California Department of Parks and Recreation- Bay Area District
845 Casa Grande Road
Petaluma, Ca 94954-5804
(707) 338-4101
christina.freeman@parks.ca.gov

Submission of questions or comments regarding this Draft IS/MND must be in writing and postmarked or received by email no later than **July 16, 2025**.

1.4 Document Purpose and Organization

The purpose of this document is to evaluate the potential environmental effects of the Proposed Project. Project Requirements have also been incorporated into the Project to eliminate any potentially significant impacts to reduce them to a less-than-significant level.

This document is organized as follows:

Section 1 – Background: This chapter introduces the Project and describes the purpose and organization of this document.

Section 2 – Project Description: This chapter describes the reasons for the Project, scope of the Project, objectives of the Project, and the Project requirements.

Section 3 – Environmental Factors Potentially Affected and Determination: This chapter identifies the overall significance of any potential impacts to natural and cultural resources, cumulative impacts, and impacts to humans, as identified in the IS.

Section 4 – Environmental Checklist and Discussion: This chapter identifies the significance of potential environmental impacts, describes the environmental setting for each environmental issue, and evaluates the potential impacts identified in the CEQA Environmental Checklist for Initial Studies. Project requirements are incorporated, where appropriate, to reduce potentially significant impacts to a less-than-significant level.

Section 5 – List of Preparers: This chapter provides a list of those involved in the preparation of this document.

Section 6 – References: This chapter identifies the references and sources used in the preparation of this Draft IS/MND.

Appendices – Supporting information is provided in this section. Appendix A provides the Air Quality and Greenhouse Gas reports; Appendix B provides a draft Biological Resources Assessment. Appendix C provides the Special-Status Species Plant Report. Appendix D provides the Wetland Delineation for the project. Appendix E provides the confidential Cultural Resources Report. This report is not provided with this submittal due to confidentiality. Appendix F shows the Project Fuel Consumption. Appendix G

provides the results of the noise assessment conducted by ECORP, and Appendix H provides the Plan Sheets.

1.5 Summary of Findings

Section 4 of this document contains the IS Environmental Checklist, which identifies the potential environmental impacts and a brief discussion of each impact resulting from the implementation of the Proposed Project. Based on the IS and supporting environmental analysis provided in this document, the Proposed Project would result in less than significant impacts for the following issues: aesthetics, agricultural resources, air quality, biological resources, cultural resources, geology and soils, greenhouse gases (GHGs), hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, tribal cultural resources (TCRs), utilities and service systems, wildfires, and mandatory finding of significance.

In accordance with §15064(f) of the CEQA Guidelines, an MND shall be prepared if the Proposed Project will not have a significant effect on the environment. Based on the available Project information and the environmental analysis presented in this document, there is no substantial evidence that the Proposed Project would have a significant effect on the environment.

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2.0 PROJECT DESCRIPTION

2.1 Introduction, Background, and Need

BNVSP is a 1,900-acre park located in Napa County, surrounded by residential properties and agricultural lands. The park is situated off Saint Helena Highway (State Route 28), between the towns of Calistoga and St. Helena. This park has both day use picnicking and overnight campground facilities, as well as over ten miles of trails for recreators.

The Park's Day Use Road/Bothe State Park Road crosses Ritchey Creek, providing vehicular and pedestrian access to various public use facilities at the park, including a campground to the north and swimming pools, yurts and historical resources to the south.

Under the Day Use Road/Bothe State Park Road crossing are two undersized 60" culverts that act as a low flow barrier to native and endangered fish migration, restricting access to over 3 miles of pristine upstream aquatic habitat. Debris and stream bed material has aggraded on the upstream side of the culverts and streamflow travels across the top of the road surface at high flows resulting in a large scour pool on the downstream side of the crossing. Fish are not fully capable of passing through this perched culvert to reach the upstream habitat. In addition, stream material cannot be distributed through this reach due to the obstruction in the channel and overtopping of the stream at this crossing because high-flow events have caused erosion around the existing bridge.

The Proposed Project, replacing the damaged crossing at the Day Use Road/Bothe State Park Road with a structurally sound facility and removing the existing culverts and associated upstream aggraded materials, will restore the natural stream conditions in this reach, directing water through a natural bottom crossing structure, providing natural grade and stream dynamics in the channel by creating a non-anchored, keyed in streambed that will have the ability to move material in high flows. The restoration of this stretch of the riparian corridor will enable fish to reach approximately 3 miles of high-quality upstream spawning habitat within the Ritchey Creek watershed.

The 1,565-acre Ritchey Creek watershed is one of two watersheds in BNVSP, draining the northern half of the park; Mill Creek drains the southern portion. Tributary to the Napa River, Ritchey Creek is approximately 4.1 miles in length and is regarded by the Napa County Resource Conservation District and the Northern Napa River Watershed Plan as a nearly pristine stream, with good low gradient riffles and a high-density riparian canopy ideal for spawning salmonid habitat for the federally threatened Steelhead trout (*Oncorhynchus mykiss*). Downstream, the Napa River supports both Steelhead trout and Chinook salmon (*O. tshawytscha*) populations, making Ritchey Creek an important tributary reach for ongoing salmonid occurrence within this basin.

50 years ago, Ritchey Creek had a robust steelhead population, which is now considered threatened. The trout were known to visit upstream reaches of Ritchey Creek to spawn each year from March through June, though presently man-made impediments prevent fish from consistently accessing much of the pristine upstream spawning habitat areas.

This restoration Project supports the State Parks Department Mission by preserving and enhancing the biodiversity of resources within this park unit, including the restoration of the steelhead trout population in Ritchey Creek, and has been a focus of the Natural Resource Program of the Bay Area District for over 18 years. Areas that can provide continuous habitat availability for species are considered high priorities for restoration by State Parks.

2.2 Project Location and Setting

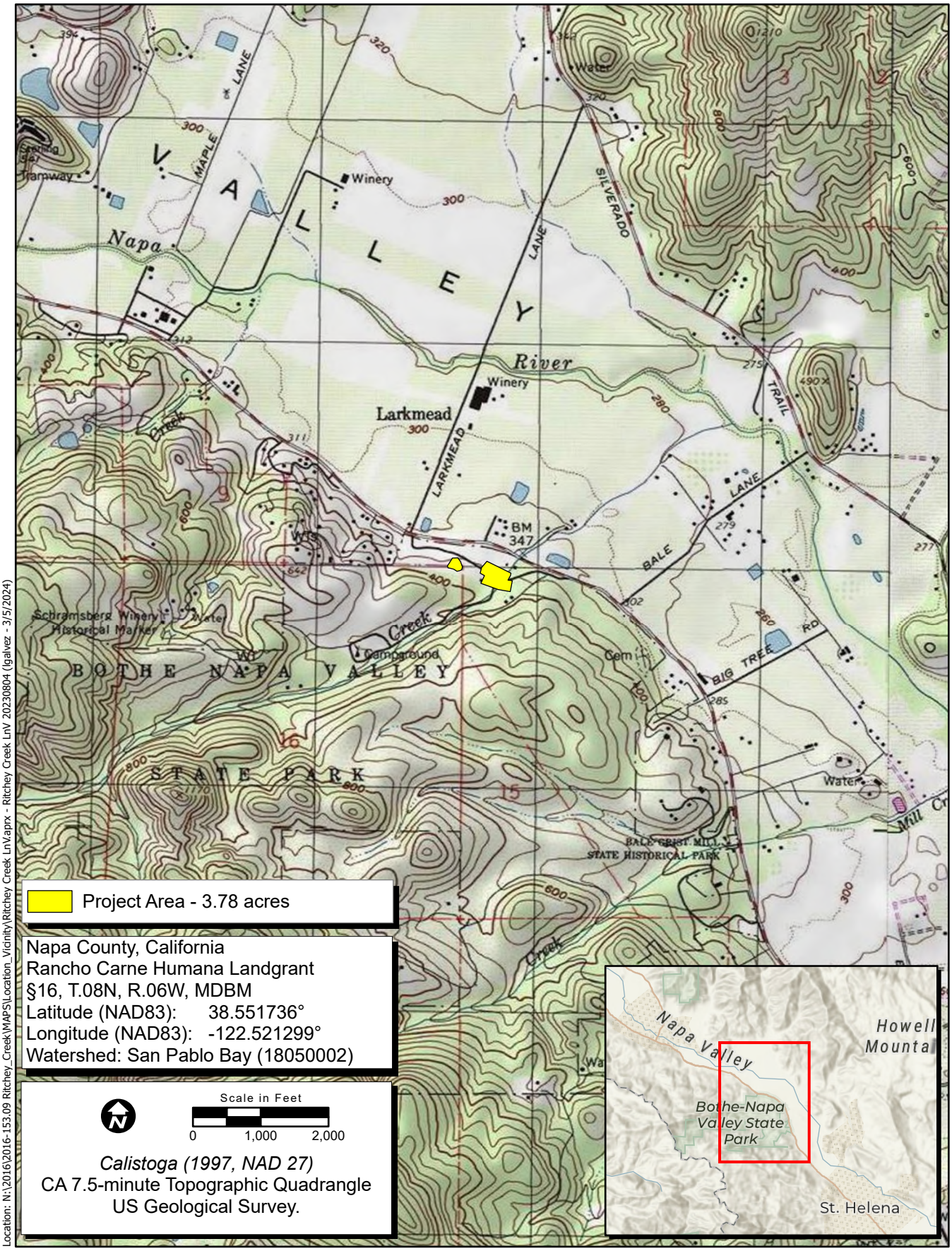
The 0.5-acre restoration Project Area is located within BNVSP, Napa County, approximately 3.5 driving miles southeast of Calistoga situated entirely on the west side of Highway 128 (Figure 2-1). This area is known for its' expansive and fertile valley, which spans between the Mayacamas Ridge range to the west and north and the Vaca Mountains to the east. BNVSP is located on the western side of the valley, bordering the Mayacamas Ridge range on its westernmost end. The topography within BNVSP climbs from about 300 feet on the riparian corridor floor to approximately 1,800 feet in the southwest corner (Figure 2-2).

Both the Ritchey Creek and Mill Creek watersheds within the BNVSP direct flow in a northeasterly direction towards the park boundary, exiting the park through box culverts under Saint Helena Highway. Approximately 3/4 mile outside the park boundary, both creeks join the Napa River. From there, the Napa River flows southeast past the towns of St. Helena, Rutherford, Oakville, and through the city of Napa to discharge to San Pablo Bay.

The restoration Project is located within the front country of BNVSP, at the crossing of the main Day Use Road/Bothe State Park Road with Ritchey Creek. Park access is via the Park's Day Use Road/Bothe State Park Road; access to the campground is via a road that intersects the Day Use Road/Bothe State Park Road just north of the Project Area. The Day Use Road/Bothe State Park Road is a paved front country road used by hikers, bikers, and vehicles accessing connective trails in the area and the facilities south of the crossing at Ritchey Creek, which include yurts, cabins, group day use areas, restrooms, and historic features. The average traffic crossing the current road structure over Ritchey Creek is approximately 40 cars per day during the peak season (May-September).

About 2 miles away from the Project, at the southern end of Spring Road within BNVSP, is a spring which State Parks utilizes as a water source for the facilities associated with the park, including the campground, visitor center, residences, and maintenance buildings, among others. The water delivery pipe runs under Spring Road mid Ritchey Canyon, continues under the campground road to the Day Use Road/Bothe State Park Road, where it crosses the Day Use Road/Bothe State Park Road within the Project Area and connects with a standpipe east of the Project crossing location.

Except for the Ritchey Creek corridor and the facility areas near the eastern boundary of the park, most of the wildlands in the park consist of steep woodland and forest covered rises, with gradients averaging over 10 percent. The upper and middle portions of the Ritchey Creek watershed consist of mixed coastal redwood forest and oak woodland, while the lower portion of the watershed is agricultural land consisting primarily of vineyards. The area surrounding the Project Area consists of riparian zone redwood forest vegetated with ferns, redwoods, understory shrubs, and riparian hardwood trees (Figure 2-3).



Location: N:\2016\2016-153.09 Ritchey_Creek\MAPS\Location_Vicinity\Ritchey Creek LnVaprx - Ritchey Creek LnV 20230804 (lgalvez - 3/5/2024)

Map Date: 3/5/2024
Sources: ESRI, USGS

Figure 2-1. Project Location and Vicinity

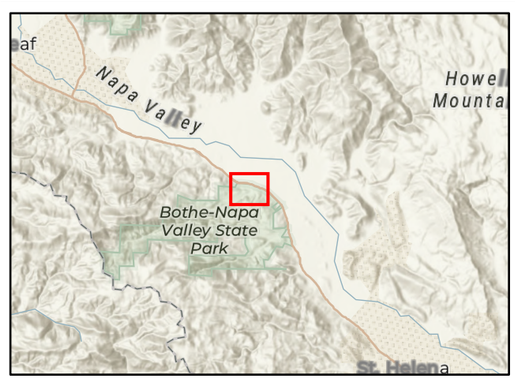
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Map Contents

Project Area - 3.78 acres

Sources: Esri Imagery, Napa County 4/30/2021



Location: N:\2016\2016-153.09 Ritchey_Creek\MAPS\Aerial_Maps\Ritchey Creek Aerial.aprx - Ritchey Creek Aerial Location 20230908 (galvez - 3/5/2024)

Map Date: 9/8/2023

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Scale in Feet
0 300

Figure 2-2 Project Location

2018-038.07 Ritchey Creek

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Photo 1. On Day Use Road, facing SE, looking at crossing over Ritchey Creek, January 24, 2024.



Photo 2. View of Ritchey Creek south of Highway 29, facing SW, August 16, 2023.



Photo 3. Existing culvert passing under Day Use Road, facing



Photo 4. View of Ritchey Creek upstream of Day Use Road, facing

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Figure 2-3. Representative Site Photographs

2018-038.07/Ritchey Creek Day-Use Road Culvert Replacement Project

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Under the U.S. Forest Service's CalVeg classification, nine different vegetation types have been mapped in the park, forming a complex mosaic of plant communities including but not limited to. Annual Grassland, Redwood/Douglas Fir, Mixed Hardwood, Mixed Chaparral, Knobcone Pine, and Agriculture.

BNVSP contains both rare and endangered plant and animal species, as well as some of the most inland stands of coast redwoods (*Sequoia sempervirens*) in the state of California. A considerable diversity of vegetation and faunal habitat types occur within the park, as well as numerous special status plants and wildlife species. The eastern portion of the park supports both Clara hunts milk vetch (*Astragalus claranus*), and Napa false indigo *(Amorpha californica* var. *napensis*); the southern section of the park supports the rare California brodiaea (*Brodiaea californica var. leptandra*). The unit also supports many well preserved native and locally rare vegetative habitats, such as the unique Oregon white oak/California fescue community in the north corner and eastern woodland areas of the park.

Peregrine falcon (*Falco peregrinus*) have been observed within upper Ritchey canyon area, and the old second growth Redwood and Douglas fir forests in the park support pileated woodpeckers (*Dryocopus pileatus*) and the state and federal threatened Northern spotted owl (*Strix occidentalis caurina).* There are also known occurrences of pallid bat (*Antrozous pallidus*) in the northeast area of the park, which falls within its potential range. As referenced earlier in the document, Ritchey Creek provides habitat for the federally threatened Steelhead trout and contains one of the best examples of undisturbed riparian corridor in the valley.

Natural and Cultural Resources in this park are managed by the Bay Area District; front country operations and visitor facilities are managed by Napa County Regional Park and Open Space District.

2.3 Project Objectives

The mission of State Parks is to provide for the health, inspiration and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality recreation.

The goal of this restoration Project is to improve salmonid and riparian habitat by removing the barrier and installing a new clear span stream crossing structure, enhancing habitat for endangered salmonid and amphibian species, restoring this area of Ritchey Creek to natural stream channel grade, allowing for natural hydrological events to redistribute stream materials in the Project Area, and reducing sedimentation associated with surface flow of water currently resulting from low-functioning drainage structures.

Specifically, by removing this barrier in Ritchey Creek and restoring the natural channel bottom in the reach, the Project will:

- restore the channel's ability to move flow and material through this reach of Ritchey Creek, thereby stabilizing large and small rock, cobble, and fine sediment flow and deposition dynamics in the area;
- reduce bank erosion and scour in the reach by removing the creek obstruction which directs flow overland and into a drop pool; and

- improve the ability for native and endangered aquatic wildlife, including listed salmonids, to move upstream through this reach to access high quality upstream habitat.

Waters of the U.S. and State are present within the Project Area. It is anticipated that the improvements to endangered species habitat and stream function resulting from this Project will offset any Project impacts to Waters of the State and the habitat for species that rely on these Waters.

Project design, avoidance measures, and methodologies were centered around the State Park Mission, which requires the highest level of natural and cultural resource protection, the retention of a backcountry natural aesthetic, and the improvement of stream hydrologic conditions in this area, while retaining the ability for the public in access and interact with the park unit in this area as during pre-Project conditions.

2.4 Project Description

The Project will include restoring the channel conditions and species habitat at the Day Use Road/Bothe State Park Road crossing of Ritchey Creek by replacing the existing facilities with a free span crossing structure and constructing an engineered streambed with natural materials at natural grade. Design methodology included integration of resource and access protection constraints and impact avoidance measures.

To accomplish this, the following Project activities will occur:

1. Removal of the two 60" culverts, associated footings, and concrete portion of Day Use Road/Bothe State Park Road at the crossing.
2. Channel grading at the crossing and in the immediate upstream and downstream vicinity of the crossing (improvements reaching about 60' downstream and 415' upstream from roadside).
3. Construction of two 12'D x 10'L bridge abutments parallel to the road prism at each side of the crossing.
4. Installation of a 50-foot free span bridge topped with a roadway atop the footings.
5. Construction of a retaining wall at Campground Road.
6. Re-paving of Day Use Road/Bothe State Park Road and Campground Road where improvements occur.
7. Revegetation of the exposed areas post-construction.

The design includes replacement of the curb steel handrail and guardrail system along the Day Use Road/Bothe State Park Road crossing road section to continue to allow for pedestrian access through the site.

Approximately 500 linear feet (LF) of Ritchey Creek will need to be dewatered to allow for Project activities to occur. A coffer dam will be installed approximately 400 feet upstream of the bridge. Dewatering will occur during the low flow season (August through end of October) to both allow for minimal impacts to salmonids, amphibians, or other native species present in the creek, but also to result in the least amount

of temporary impact to stream material movement, which is minimized during lower flows. All fish and native species will be removed from Ritchey Creek prior to dewatering and measures will be put into place to deter access by fish and other species into the dewatered area during Project activities.

Within the Project Area, a water pipe that supplies water to the Park's front-country facilities, runs under the Day Use Road/Bothe State Park Road. In addition, a water intake and pipeline traveling offsite associated with a private water right is located within the construction area. These water facilities will be temporarily rerouted during Project activities, with minimal interruption.

The restoration Project will incorporate pre-construction monitoring prior to initiation of dewatering, and monitoring by qualified onsite staff during Project activities to ensure compliance with established Standard Project Requirements (SPRs), PSRs, and mitigation measures during construction activities including (but not limited to) construction traffic, equipment, personnel, in-stream netting and pumps, or other Project features which could pose a risk to native species. Shrub vegetation will be removed outside of the Migratory Bird Act bird breeding season. If shrub removal is needed in August, vegetation will be surveyed and monitored for any active birds nests. No nests will be disturbed by Project activities within breeding season. Trees will not be removed until after bird breeding season. Prior to removal, trees will be surveyed for the presence of bats. If bats are present, human eviction will occur prior to any disturbance to the tree. Noise and nesting impacts to Northern spotted owl will be avoided by limiting construction activities to after August 1. Any vegetation removed during Project activities that can be salvaged, such as shrubs or ferns, will be kept onsite and watered to be utilized in site revegetation upon Project completion. After work in completed, the Project Area will be revegetated with plants collected within adjacent parklands according to the State Park Genetic Integrity Policy and will result in highly improved hydrologic function and habitat features at the site. See Appendix B for a full list of Biological Resource and Special Status Species Protection Measures.

2.5 Construction Approach

Mobilization including arrival of equipment and materials staging will begin in July. Construction activities will occur from August through December, during the low flow season of Ritchey Creek although dewatering will only occur through October. The Project will include Best Management Practice (BMP) strategies to minimize the potential contribution of pollutants, including sediment, to storm runoff and other discharges to tributaries a full list of Erosion and Sedimentation Control Measures). Erosion and sediment control practices will be utilized throughout all phases of work. Work scheduling will occur in a manner which allows for the shortest possible duration of road closures to use areas and park facilities. During construction activities, given the sensitive cultural and natural resources present, equipment and personnel will be restricted to demarcated pathways with rubber padding to protect soil resources. Tracked vehicles will be allowed in the project site along approved routes, entering from the northern side of the project area. Personnel will be restricted to approved pathways; protective fencing will be installed to keep personnel outside of sensitive resource areas. Project staging areas, work sites, equipment, nets, pumps, and water lines will be inspected and documented daily by approved biological monitors.

2.5.1 Access and Staging

Equipment and vehicles will access the Project Area by entering the park on the Day Use Road/Bothe State Park Road from Saint Helena Highway, traveling past the kiosk on Day Use Road/Bothe State Park Road to its intersection with the campground road. Day Use Road/Bothe State Park Road is a paved surface of standard road width which will allow for both the passage of standard equipment, such as the excavator and construction work trucks, as well as larger equipment, such as a 10-wheeler dump trucks or flatbeds.

Prior to construction, creek access point locations that minimize riparian disturbance will be identified. Equipment will not be allowed to enter other unstable areas. During construction activities, equipment and personnel will be restricted to demarcated pathways with rubber padding to protect soil resources. Tracked vehicles will be allowed in the Project Area along approved routes, entering from the northern side of the Project Area. Personnel will be restricted to approved pathways; protective fencing will be installed to restrict access to sensitive areas. Riparian trees to be retained will be wrapped with plywood protective sheets to reduce the likelihood of impact from equipment.

Construction materials will be staged in areas used as a maintenance materials storage yard in the front country area of the park, west of the kiosk. If deemed necessary, material removed from the stream earmarked for later use in in-stream fill activities may be briefly staged in the road prism within limits of disturbance at the Project Area. Material will not be staged in or near the creek bed. Large equipment used for grading and excavating will be walked out to the Project Area once and stored at the site, outside of the streambed, for the Project duration. A generator will be temporarily staged near the Project Area to power the groundwater and coffer dam pumps. The generator will be held within a double to triple lined containment box at least 35 feet away from the stream channel.

2.5.2 Temporary Fencing

Environmentally sensitive area fencing will be installed at the approach to the crossing on Day Use Road/Bothe State Park Road, as well on Redwood Trail, at its' junction with Day Use Road/Bothe State Park Road for the duration of the construction period. Signage indicating Project intent, duration, Project Area hazards, entry restrictions, and State Park contact information will be posted on the fencing on both sides of the crossing. The fences will be closed and secured each evening at work shutdown. In addition, environmentally sensitive area fencing will be installed at the Project limits to deter Project personnel disturbing resource located throughout the Project Area. Installation of this section of fencing will not include ground disturbance and will be secured utilizing existing riparian trees and vegetation.

2.5.3 Road and Facilities Closures

During Project construction, overnight accommodations and vehicle access to the campgrounds and facilities south of the creek crossing may be interrupted for up to approximately five months (late August through December). During this period, Park concessions at the Day Use Area (swimming pool, group campground, yurt rentals) will be closed and there will be no vehicular access to these facilities or the Pioneer Cemetery. Pedestrian access to the Pioneer Cemetery and trails south of the Project Area will be maintained throughout the duration of the Project via the Redwood trail. Campground Road will be

limited to one lane traffic during Project activities, with the exception of a one-to-two-week total closure during the paving stage, which will occur at the end of the Project schedule, likely in mid-November.

2.5.4 Dewatering Activities

Approximately 500 LF of Ritchey Creek will need to be dewatered to allow for Project activities to occur. A sandbag coffer dam will be installed approximately 400 feet upstream of the crossing. Streamflow from the cofferdam pool will be directed with sandbags to move with gravity into a flexible corrugated plastic drainpipe. In addition, water in the pool behind the dam will be pumped into a temporary waterline placed over the cofferdam; both pipes will move the water overland, to be deposited back into Ritchey Creek approximately 50 feet downstream of the crossing. If warranted, a filtration system will be installed to process water prior to returning it to the creek. Prior to initiating the pumping of water out of the creek, the area will be seine netted/E-fished and all fish and native species will be captured and relocated downstream of the Project by qualified biologists holding the appropriate State and federal regulatory permits to handle listed species. Dewatering will occur during the low flow season (August through October) to both allow for minimal impacts to salmonids, amphibians, or other native species present in the creek, but also to result in the least amount of temporary impact to stream material movement, which is minimized during lower flows. During Project activities, prior to construction initiation each day, a qualified biologist will inspect the coffer dam, the pool behind the dam, the pumps and the temporary waterlines for presence of salmonids, amphibians or other native species and relocate any individuals out of the Project Area and into species-suitable habitat. The dewatering line intake, pumps, and seine nets will be monitored 7 days a week to ensure full functionality. All construction activities will have a trained biological monitor present checking staged equipment and materials and other Project areas. Pits or open holes will be covered at night to prevent amphibians, reptiles, mammals, and other species from injury or entrapment.

2.5.5 Water Lines

A 4" water line that transports water for park facilities through the Project Area is located approximately 4' below grade under Day Use Road/Bothe State Park Road. To facilitate the replacement of the crossing, a portion of the water line will be removed within the Project limits and replaced as part of Project activities. To avoid an interruption in water service, a temporary potable water bypass line will be installed in its place during construction. Prior to removal of existing section of pipeline and installation of temporary water line, the water will be shut off at the valve located just west of the Project on the north side of the campground road near the Native Plant Garden, then returned into service once the temporary line has been constructed around the Project limits. The water supply will not be disconnected for more than a period of 2 days during the construction of the temporary bypass line. Residents below the Project will be notified prior to the temporary shutoff.

In addition, a private water intake structure and water line associated with a State Water Board regulated water right exists within the Project Area. The intake is located just upstream of the Day Use Road/Bothe State Park Road bridge. A temporary intake will be placed upstream of the Project limits, routed around the Project, and connected to the private waterline downstream of the Project. The section running

through the Project Area will be removed and reconstructed during Project activities, to be reconnected with the intake once flow is returned to the stream.

2.5.6 Vegetation Removal and Protection

To facilitate construction, four trees, between 8 inches and 13 inches diameter at breast height (multiple trunks) will be removed. Tree material will be lopped and scattered within an adjacent forest area. Ground vegetation within about 8 to 10 feet of the Day Use Road/Bothe State Park Road within the Project footprint, about 0.2 acres will be grubbed; all ferns and intact plants will be put into pots and kept onsite for salvage, to be planted within the constructed hardscape areas upon completion of construction. Remaining trees within the active construction area will be protected during construction activities with plywood wrapping. To ensure the highest level of protection, natural and cultural resource monitors will be available during all vegetation removal activities. Given that the riparian canopy at Ritchey Creek has over 85% continuous cover, and the highly prolific adjacent seed source in the wildlands, it is anticipated that the removal of the trees will not interrupt overall riparian canopy continuity or shade cover, and the overall restorative nature of the Project will offset any impact from removing this vegetation.

2.6 Project Implementation

The expected total duration of the Project is five to six months. Equipment and materials mobilization will likely begin in July. Initiation of dewatering procedures and construction within the channel would take place during the dry season from August through the end of October. Paving, site revegetation, and demobilization will likely take place in November to December. Work in the drainage will be governed by regulatory permit work windows. Construction crews will work 8-hour workdays beginning at 8 a.m. Work schedule will be five (5) day work weeks, with work on weekends only if necessary due to regulatory time constraints or unanticipated circumstances.

2.6.1 Design Methodology

The aim of the construction is to install a free span, natural stream bottom natural grade crossing feature over Ritchey Creek. Design considerations included vehicle capacity, public access, cultural and natural resource protection measures, channel morphology, and geotechnical and hydraulic site conditions and limitations.

The existing bridge and underlying culverts, including concrete, fill or other non-native materials associated with the crossing, will be demolished and removed. Demolition and removal is expected to take place utilizing heavy equipment, jackhammer equipment, 10 wheelers/dump trucks, and manual assistance. Construction-related refuse will be hauled away to be disposed of at the closest appropriate facility.

To obtain the appropriate bridge structure dimensions and footings for the target vehicle capacity within the geology of the site, bridge footings will be constructed in alignment with the current roadway direction, reaching to the west and east of the crossing. Project grading at the roadside has been kept to a minimum around the current road footprint, only reaching 10 feet at most where needed for the new road edge to be tapered into the exiting adjacent roadside conditions. Once excavation occurs, footings will be

constructed, reaching 12 feet below grade by 10 feet long, as described in the Bridge Section Plan (see Appendix H). Any concrete that may be mixed on site will be within the staging area away from the creek and brought to the construction area by truck. In addition, a retaining wall will be constructed at the Day Use Road/Bothe State Park Road and Campground Road northwestern bank, as described in the Retaining Wall Plan (see Appendix H for engineering plans). All spill prevention measures will be in place during concrete bridge abutment pouring. If groundwater seepage occurs in the excavated footing construction areas, sump pumps will be installed and excess water will be moved outside of the Project Area to be dissipated in flat adjacent forest areas away from the creek. The bridge structure and associated roadbed material will be placed and compacted to standard road requirements; existing campground road approach will be paved to meet the grade of the new Day Use Road/Bothe State Park Road at their intersection. Redwood Trail will remain open during construction activities and will not be altered.

In order to attain a natural stream bed material channel at natural grade, in-stream boulders and rock material will be removed at aggraded areas and utilized to build grade control structures and natural stream bed. Any rocks or material onsite within the Project footprint that conforms to in-stream design standards for the engineered streambed will be utilized for the restoration. In addition, rock or other material may be brought in from a local, clean source quarry, as needed.

To create target grade conditions which best allow for fish passage, in-stream design included construction of a boulder step-pool and cascade morphology which conforms to the existing upstream cross-section and transitions through the bridging cascade to the reach downstream of the bridge, as described in the Project plans. Specifically, two boulder step pools will be constructed, followed by a 40 ft. long boulder cascade through the bridge and a longer step-pool largely conforming to the zone channel topography immediately downstream of the current culvert outlet. Just upstream of the bridge, the second step-pool will integrate and buttress the existing water right intake manhole structure which will continue to function post-restoration. Downstream, two additional boulder weirs will be constructed; one at the lower end of the cascade reach and another just downstream of the pool outlet. In addition, in-stream work will include rock armoring of the bridge undercrossing to the 100-year flood stage to protect the new abutments, smooth bedform integration with the long cascade below the restored reach, and keyed low to mid-bank rock armoring along roughly 20 ft. of the right bank. Rock sizes for the will likely fall within the ¼-ton to ½-ton California Department of Transportation (Caltrans) classes for riprap, with some 1-ton boulders used for the principal weirs.

In addition to BMPs, SPRs and Project Specific Requirements (PSRs) will be incorporated into the Project design. Temporary BMPs would be used to keep sediment onsite throughout the duration of the Project and would be checked daily, maintained, and modified as needed during construction. In addition, permanent BMPs would be used after construction work to stabilize the site and minimize erosion, as described in the Erosion Control Plan.

2.7 Project Requirements

Under the CEQA guidelines, State Parks is in a unique role as both the Lead Agency and a Trustee Agency. The Lead Agency is a public agency that has the primary responsibility for carrying out or approving a project and for implementing CEQA. A Trustee Agency is a state agency having jurisdiction by law over

natural resources affected by a project that are held in trust for the people of the State of California. State Parks takes this distinction with responsibility to ensure that its actions protect both cultural and natural resources on all projects.

However, State Parks is also the Project Proponent. Because of its unique role as Lead Agency, Trustee Agency as well as the Project Proponent, State Parks' resource professionals take a prominent and influential role during the Project conceptualization, design, and planning process consistent with Section 15004(b)(1) of CEQA. Their early involvement during the planning process enables environmental considerations to influence Project programming and design. This approach permits State Parks under CEQA Section 15065(b)(1), to incorporate Project modifications prior to the start of the public review process of the environmental document, to avoid impacts to a point where clearly no significant effect on the environment would occur.

As part of its effort to avoid impacts, State Parks also maintains a list of SPRs that are included in the Project design to reduce impacts to resources. From this list, SPRs are assigned, as appropriate to all projects. For example, projects that include ground-disturbing activities such as trenching would always include SPRs addressing the inadvertent discovery of archaeological artifacts. However, for a project that replaces a roof on an historic structure, ground disturbance would not be necessary; therefore, SPRs for ground disturbance would not be applicable and State Parks would not assign them to the Project.

State Parks also makes use of PSRs. State Parks develops these project requirements to address project impacts for projects that have unique issues but do not typically standardize these for projects statewide. As part of the IS review process, State Parks has identified the following SPRs and PSRs that apply to the Project to ensure that impacts remain less than significant. The Project Requirements for Napa-Bothe Ritchey Creek Fish Passage Project are provided in Table 2.7-1. Project Requirements.

Table 2.7-1. Standard Project Requirements

Issue	Project Requirement
General	
SPR GEN-1: Pre-Construction	Prior to the start of onsite construction work, contractor will consult with the State Parks Project Manager to identify all resources that must be protected.
SPR GEN-2: Heavy Equipment	No track-mounted or heavy-wheeled vehicles will be allowed in identified culturally sensitive areas at any time; foot traffic will only be allowed in specific paths of travel with specific permission from the State's Representative after clearance from the State Parks Cultural Resource Specialist. • All construction equipment must enter and exit the area via the same route of travel (by backing up). Vehicles are strictly prohibited from turning on the surface of site(s).
SPR GEN-3: Construction Monitoring Advance Notice	Prior to the start of in-water work, the Project Manager will notify the SFBRWQCB, USACE, and CDFW a minimum of three weeks in advance, unless other arrangements are made, to schedule Cultural Resources and Biological Resources monitoring.

Table 2.7-1. Standard Project Requirements	
Issue	**Project Requirement**
Aesthetics	
SPR AES-1: Materials Storage	The Project contractor will store all Project-related materials outside of the viewshed of the BNVSP Day Use Road/Bothe State Park Road, at the staging area behind the maintenance yard west of the kiosk.
Air Quality	
SPR AIR-1: Fugitive Dust and Ozone	The following shall be conducted prior to initiation or during Project construction: • Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The San Francisco Bay Area Air Basin phone number shall also be visible to ensure compliance with applicable regulations. • All trucks hauling soil, sand, or other loose materials on public roads will be covered or required to maintain at least two feet of freeboard. • All vehicle speeds on unpaved roads shall be limited to 15 mph. • All construction-related equipment and engines will be maintained in proper tune (according to manufacturer's specifications), and in compliance with all State and federal requirements. • Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Clear signage shall be provided for construction workers at all access points. • Earth or other material that has been transported onto paved roadways by trucks, construction equipment, erosion, or other Project-related activity will be promptly removed.
SPR AIR-2: Fugitive Dust and Ozone	During dry, dusty conditions, all active construction areas will be lightly sprayed with dust suppressant to reduce dust without causing runoff.
SPR AIR-3: Fugitive Dust and Ozone	The following shall be conducted prior to and during Project construction: • All trucks or light equipment hauling soil, sand, or other loose materials on public roads will be covered or required to maintain at least two feet of freeboard. • All gasoline-powered equipment will be maintained according to manufacturer's specifications, and in compliance with all State and federal requirements. • Paved streets adjacent to the park shall either be swept or washed at the end of each day, or as required, to remove excessive accumulations of silt and/or mud that could have resulted from Project-related activities. Excavation and grading activities will be suspended when sustained winds exceed 25 mph, instantaneous gusts exceed 35 mph, or when dust occurs from remediation related activities where visible emissions (dust) cannot be controlled by watering or conventional dust abatement controls.
Biological Resources	
SPR BIO-1: Work Area Boundaries	Prior to the start of onsite construction activities, the Project construction manager will determine the minimum area required to complete the work and define the boundaries

Table 2.7-1. Standard Project Requirements	
Issue	**Project Requirement**
	of the work area on the Project drawings and with flagging or fencing on the ground, as appropriate.
SPR BIO-2: Special Status Plants	At the discretion of the State Park Project Manager, Project activities will be monitored to ensure that impacts to special status species and habitats are minimized.
PSR BIO-3: Signage	Prior to closures dates, the State Parks Project Manager will post information signs near Project areas with restricted access or closures lasting longer than 3 months. The signs will include the following information: – Explanation for and description of the Project; and – Anticipated completion date.
SPR BIO-4: Summary Report	A State Parks qualified biologist will submit a summary report of all collecting activities conducted at BNVSP to the Bay District Environmental Scientist upon completion of the Project.
PSR BIO-5: Plant Stock Collection	To maintain genetic integrity, only plant stock collected within the BNVSP will be used for re-vegetation in the Project Area.
SPR BIO-6: Runoff Prevention	Project personnel will employ BMPs for erosion control to avoid runoff of Project-related sediments, vehicle fluids, and other liquids into special plant communities.
PSR BIO-7: Vegetation Removal	All vegetation removal shall be done under the supervision of State Park/other regulatory agency approved biologist.
PSR BIO 8: Pump Intake Inspection	Pump intake shall be checked periodically, 7 days a week during construction activities for impingement of fish or amphibians by a State Park/other agency approved biologist or trained personnel.
PSR BIO-9: Coffer Dam Inspection	A post-construction survey will be conducted by an agency approved biologist just before the cofferdam is removed to make sure no frogs have occupied the temporary pool created upstream of the site. If any are present, removal of the dam materials will be delayed until the species moves on its own accord out of the Project Area. In the event that a frog does not move out of the Project Area, the USFWS/CDFW will be contacted for further guidance.
SPR BIO-10: Entrapment	All construction-related holes, capable of entrapping wildlife, will be covered at the end of each workday by the State Park/other agency approved biological monitor or trained personnel in a manner that will prevent entrapment.
SPR BIO 11: Exclusionary Materials	Exclusionary materials will be selected that do not include plastic monofilament mesh or other features that might lead to entrapment, injury, or death of listed species. The State Park/other agency approved biological monitor or trained personnel will inspect fencing daily for entrapment.
SPR BIO-12: Root Zone trenching	Any trenching in a "structural root zone" will be restricted by need to retain riparian trees for bank stability and cultural resource protections.
SPR BIO-13: Nesting Birds	The following shall be conducted prior to initiation of project construction: • Surveys for active raptor nests would be conducted within a 500-foot radius of project areas. • The surveys would be conducted within 7 days prior to the beginning of construction at each work site. If nesting raptors are found, no construction would occur within a 500-foot radius of the nest tree between March 1 and August 31, or until the young have fledged and the young would no longer be impacted by

Table 2.7-1. Standard Project Requirements	
Issue	**Project Requirement**
	project activities (as determined by a DPR-approved biologist). • Surveys for active migratory bird nests would be conducted within a 100-foot radius of the project area 7 days prior to commencement of construction at each work site. If active nests are located, all construction disturbance activities within a 100-foot radius of the nest tree would be postponed until the end of the breeding season (August 31) or until the young have fledged and the young are no longer impacted by project activities (as determined by a DPR-approved biologist).
Cultural Resources	
SPR CUL-1: Unanticipated Discovery	If anyone discovers previously undocumented cultural resources during Project construction, work within 100 feet of the find will be temporarily halted until a State Parks Qualified cultural resources specialist designs and implements appropriate treatments in accordance with the Secretary of the Interiors Standards and Guidelines for archaeological resources protection. State Parks will modify the Project to ensure that construction activities will avoid cultural resources upon review and approval of a State Parks Archaeologist. If ground disturbing activities uncover intact cultural features (including but not limited to dark soil containing shellfish, bone, flaked stone, groundstone, or deposits of historic ash) or human remains, when a State Parks Qualified cultural resources specialist is not onsite Project manager/site supervisor will contact the State Parks State Representative immediately and Project manager/site supervisor will temporarily halt or divert work within the immediate vicinity of the find until a State Parks-qualified cultural resource specialist evaluates the find and determines the appropriate treatment and disposition. The archaeologist shall notify the Monterey County Coroner (as per § 7050.5 of the Health and Safety Code). The provisions of Section 7050.5 of the California Health and Safety Code, § 5097.98 of the California PRC, and Assembly Bill 2641 will be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, the Coroner will notify the NAHC, which then will designate a Native American MLD for the Project (§ 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. Work cannot resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.
Geology and Soils	
SPR GEO-1: Erosion Control BMPs	State Parks will implement BMPs to be used in all construction areas to reduce or eliminate the discharge of soil, surface water runoff, and pollutants during all excavation, grading, or trenching. BMPs must always be in place including, but not limited to, covering (tarping) any stockpiled materials or soils, and constructing silt fences, straw bale barriers, wildlife-friendly fiber rolls, or other structures around stockpiles and disturbed areas.
SPR GEO-2: Heavy Equipment	No track-mounted or heavy-wheeled vehicles will be driven through wet areas during the rainy season or when soils are saturated to avoid compaction and/or damage to soil structure.
SPR PALEO-1: Discovery of Unknown Resources	If any paleontological resources (i.e., fossils) are found during Project construction, construction shall be halted immediately in the subject area and the area shall be isolated using orange or yellow fencing until State Parks is notified and the area is

Table 2.7-1. Standard Project Requirements	
Issue	**Project Requirement**
	cleared for future work. A qualified paleontologist shall be retained to evaluate the find and recommend appropriate treatment of the inadvertently discovered paleontological resources. If State Parks resumes work in a location where paleontological remains have been discovered and cleared, the State Parks will have a paleontologist onsite to confirm that no additional paleontological resources are in the area
Hazards and Hazardous Materials	
SPR HAZ-1: Spill Prevention and Response	Prior to the start of onsite construction activities, the construction manager will inspect all equipment for leaks and regularly inspect thereafter until equipment is removed from the Project Area. All contaminated water, sludge, spill residue, or other hazardous compounds will be contained and disposed of outside the boundaries of the site, at a lawfully permitted or authorized destination.
SPR HAZ-2: Wildfire Avoidance and Response	Prior to the start of construction, the construction manager will develop a Fire Safety Plan for State Parks approval. The plan will include the emergency calling procedures for both CAL FIRE and local fire department(s).
SPR HAZ-3: Wildfire Avoidance and Response	State Parks personnel will have a State Park radio at the Project Area, which allows direct contact with CAL FIRE and a centralized dispatch center, to facilitate the rapid dispatch of control crews and equipment in case of a fire.
SPR HAZ-3: Wildfire Avoidance and Responses	The State Parks Project Manager will designate and/or locate staging and stockpile areas within the existing maintenance yard area or existing roads and campsites to prevent leakage of oil, hydraulic fluids, etc. into Park resources
SPR HAZ-4: Wildfire Avoidance and Response	Under dry conditions, an available water resource or fire suppressant shall be onsite during activities with the potential to start a fire.
SPR HAZ-5: Wildfire Avoidance and Response	All heavy equipment will be required to include spark arrestors or turbo chargers (which eliminate sparks in exhaust) and have fire extinguishers onsite. Construction crews shall park vehicles in an area without flammable materials, such as dry grass or brush. At the end of each workday, construction crews shall park heavy equipment over a non-combustible surface to reduce the chance of fire.
Hydrology and Water Quality	
SPR HYD-1: Erosion and Sediment Control and Pollution Prevention	The Project will comply with all applicable water quality standards as specified in the Central Valley Water Quality Control Board Basin Plan.
SPR HYD-2: Erosion and Sediment Control and Pollution Prevention	All construction activities will be suspended during heavy precipitation events (i.e., at least 1/2-inch of precipitation in a 24-hour period) or when heavy precipitation events are forecast.
SPR HYD-3: Erosion and Sediment Control and Pollution Prevention	If construction activities extend into the rainy season or if an un-seasonal storm is anticipated, contractor will properly winterize the site by covering (tarping) any stockpiled materials or soils and by constructing silt fences, straw bale barriers, fiber rolls, or other structures around stockpiles and graded areas. All erosion control measures must be wildlife friendly and will not pose a threat for species to become entangled in netting.

Table 2.7-1. Standard Project Requirements	
Issue	**Project Requirement**
Noise	
SPR NOI-1: Timing	The use of all heavy-duty construction equipment and all Project material deliveries shall be prohibited between 7:00 p.m. and 7:00 a.m.
SPR NOI-2: Sensitive Receptors	The State Parks Project Manager will locate stationary noise sources and staging areas as far from potential sensitive noise receptors, as possible. If they must be located near potential sensitive noise receptors, stationary noise sources will be muffled or shielded, and/or enclosed within temporary sheds
SPR NOI-3: Construction Hours	Prior to delivery and/or removal of Project-related equipment or materials that could impede or block access to driveways, cross streets, or street parking, the State Parks Project Manager will coordinate with the local jurisdictions to develop and implement traffic control measures.
Tribal Cultural Resources	
SPR TCR-1: Inadvertent Discovery	If any subsurface deposits are encountered during ground disturbing activities that are believed to be cultural or human in origin, all work shall cease within 100 feet of the find or an agreed upon distance based on the Project Area and nature of the find. A qualified professional archaeologist who meets the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology shall be retained to evaluate the significance of the find and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find: • If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately and no agency notifications are required. • If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, the archaeologist shall immediately notify the lead agencies. The agencies shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined by CEQA, or a Historic Property under NHPA Section 106, if applicable. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the resource either: 1) is not a Historical Resource under CEQA or a Historic Property under NHPA Section 106; or 2) that the treatment measures have been completed to their satisfaction. If the find is pre-contact in nature, a tribal representative from a Native American tribe that is traditionally and culturally affiliated with a geographic area shall be immediately notified. In this case, Mitigation Measure TCR-1 shall be followed.

Table 2.7-1. Standard Project Requirements	
Issue	**Project Requirement**
SPR TCR-2: Human Remains	Human Remains. In the event of a discovery of human remains, whether intact, fragmentary, or displaced from their original context, the Napa County Coroner and the NAHC, Napa County (707-253-4256), shall be notified of the discovery immediately, and all work in the vicinity of the find shall cease, as determined by the State Parks archaeologist. There shall be no further excavation or disturbance of the find site or any nearby area reasonably suspected to overlie adjacent remains until the Napa County has determined whether the remains are those of a Native American. If the remains are determined to be Native American, the coroner must contact the California NAHC. PRC Section §5097.98 specifies the procedures to be followed in the event of a discovery of human remains on non-federal land. The disposition of Native American burials is within the jurisdiction of the NAHC. Upon request, the NAHC will provide the Project director with a list of MLDs, who will specify treatment and disposition of any Native American remains found within the area of potential effect of the Project. Final disposition of the human remains is subject to approval of the landowner. Human remains and associated grave goods are protected under PRC § 5097.94 and Health and Safety Code § 7050.5

Notes: BMP = Best Management Practice; BNVSP = Bothe-Napa Valley State Park; CAL FIRE = California Department of Forestry and Fire Protection; CDFW = California Department of Fish and Wildlife; CEQA = California Environmental Quality Act; DPR = Department of Parks and Recreation; State Parks = California Department of Parks and Recreation; MLD = Most Likely Descendant; mph = miles per hour; NAHC = Native American Heritage Commission; NHPA = National Historic Preservation Act; PRC = Public Resources Code; PSR = Project Specific Requirement; SFBRWQCB = San Francisco Bay Regional Water Quality Control Board; SPR = Standard Project Requirement; USACE = U.S. Army Corps of Engineers; USFWS = U.S. Fish and Wildlife Service

2.8 Consistency with Local Plans and Policies

All Project components would be implemented entirely within the boundaries of BNVSP. The Proposed Project is consistent with the mission of State Parks to provide for the health, inspiration, and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality recreation. The Proposed Project is consistent with local plans and policies currently in effect. Please see Section *4.11 Land Use and Planning* for further details.

2.9 Discretionary Approvals

State Parks retains approval authority for the Proposed Project. The Proposed Project also requires consultation with the following government agencies:

- California Department of Fish and Wildlife (CDFW)
- U.S. Army Corps of Engineers (USACE)
- State Water Quality Control Board
- U.S. Fish and Wildlife Service (USFWS)
- National Marine Fisheries Service (NMFS)

Additional internal document reviews include compliance with PRC 5024. State Parks will acquire all necessary reviews and permits prior to implementing any Project components requiring regulatory review.

2.10 Day Use Road/Bothe State Park Road Consultation with California Native American Tribe(s)

California State Parks contacted the Native American Heritage Commission (NAHC) requesting a Sacred Lands Files Search and a list of California Native American tribes traditionally and culturally affiliated with the Project Area. On March 27, 2024, State Parks notified tribes of an opportunity to consult under Assembly Bill (AB) 52. The notifications included information about the Proposed Project, the agency contact information, and requested a response within 30 days regarding the tribe's desire to consult on the Project. The letters were sent to Sally Peterson- Middletown Rancheria Tribal Historic Preservation Officer, Jose Simon III-Chairperson for the Middletown Rancheria, and Scott Gabaldon- Chairperson for the Mishewal-Wappo Tribe of Alexander Valley. The 30-day response window concluded on April 27, 2024.

A request for a sacred lands file search and contact information for appropriate tribal representatives was sent to the NAHC on March 18, 2024. A response was received from the NAHC on March 19, 2024. A search of the sacred lands file returned a negative result. A review of the contact information provided revealed an additional representative for the Mishewal-Wappo Tribe of Alexander Valley. On March 27, 2024, State Parks sent a letter to Christi Gabaldon, Tribal Monitor. The 30-day response window concluded on April 27, 2024.

State Parks received a response from Scott Gabaldon of the Mishewal-Wappo Tribe of Alexander Valley requesting government-to-government consultation. State Parks responded and arranged for a meeting at the Project Area on June 24, 2024. State Parks provided an overview of the Project and discussed the mitigation measures they had established. Chairperson Galbadon provided information that indicates the Project could have a significant effect on a TCR. The tribe agreed with the mitigation measures proposed. State Parks considers tribal consultation complete under Section 21083.3.2(b)(1) and 21082.3(d)(1).

The Middletown Rancheria did not respond to the letter within the required timeframe. State Parks considers consultation with Middletown Rancheria concluded pursuant to PRC Section 21082.3(d)(3).

A summary of the consultation process, including the determination of significance of impacts to TCRs, is provided in Section 4.18 Tribal Cultural Resources of this Draft IS/MND.

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3.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED AND DETERMINATION

3.1 Environmental Factors

3.1.1 Potentially Affected

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

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

3.1.1.1 Determination

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. ☐

AGENCY REP NAME Date

TITLE

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4.0 ENVIRONMENTAL CHECKLIST AND DISCUSSION

4.1 Aesthetics

4.1.1 Environmental Setting

4.1.1.1 Regional Setting

The Ritchey Creek Fish Passage Barrier Removal Project (Project) is located within the Ritchey Creek watershed in Bothe Napa Valley State Park (BNVSP), in Napa County. Bothe-Napa Vally State Park is situated between Calistoga and St. Helena adjacent to State Route 29. The Ritchey Creek watershed is 1,565 acres (2.45 square miles); Ritchey Creek is approximately 4.1 miles in length with ___ miles occurring within the park. The range of elevation across the watershed is from approximately 1,400 feet at the origin to 275 feet at the confluence with the Napa River. Ritchey Creek runs approximately west to east through Ritchey Canyon, originating from the border of Napa County and Sonoma County. The upper and middle portions of the Ritchey Creek watershed consist of mixed coastal redwood forest and oak woodland, while the lower portion of the watershed is agricultural land consisting primarily of vineyards. The area surrounding the Project Area consists of riparian zone redwood forest.

State Scenic Highways

The California Scenic Highway Program protects and enhances the scenic beauty of California's highways and adjacent corridors. A highway can be designated as scenic based on how much natural beauty can be seen by users of the highway, the quality of the scenic landscape, and if development impacts the experience of the view (Caltrans 2024). The segment of State Route 29, immediately located east of the Project Area is eligible, but not designated as a California State Scenic Highway.

4.1.1.2 Visual Character of the Project Area

The Proposed Project Area is located just off the highway near the entrance of BNVSP. The Project Area is characterized by riparian habitat surrounding Ritchey Creek on each side of the bridge crossing. Paved roads lead to the visitor center, campgrounds, and trail heads in the Project vicinity.

4.1.2 Aesthetics (I) Environmental Checklist and Discussion

	Except as provided in Public Resources Code Section 21099, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒

No Impact.

A scenic vista is a viewpoint that provides a distant view of highly valued natural or manmade landscape features for the benefit of the general public. Typical scenic vistas are locations where views of rivers,

ocean, hillsides, and open space areas can be obtained as well as locations where valued urban landscape features can be viewed in the distance.

As described in the Environmental Setting above, the Proposed Project Area does not overlook, nor is it in view from any scenic vistas.

Construction activities would require excavation of soil and removal of a limited amount of vegetation, primarily consisting of low-growing herbs and shrubs. These activities would change the visual character of the Proposed Project Area during construction. These impacts would be considered , and the Project Area would be returned to a natural condition similar to existing conditions following construction. There would be no impact to scenic vistas.

Except as provided in Public Resources Code Section 21099, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐

Less than Significant Impact.

The Proposed Project is situated within and adjacent to the Day Use Road which is in close proximity to Highway 128. This highway is eligible, but not officially designated as a California State Scenic Highway. The Proposed Project has been designed to avoid/reduce impacts to resources such as trees, historic resources, biological resources, and rock outcroppings. Upon completion, the bridge crossing and fish passage improvements will not be visible from Highway 128 and will not alter the current view from the highway.

Highway travelers may see some construction activities and staging/storage of equipment and vehicles, near the highway. These impacts, however, are considered temporary and less than significant and no mitigation is required. Implementation of SPR AES-1 will help further reduce visual impacts.

Except as provided in Public Resources Code Section 21099, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☒	☐

Less than Significant Impact.

Design standards applied to the Project are intended to minimize impacts to the visual character of the area and will restore natural features to blend into the existing setting. As with any construction project, a temporary decrease in the visual appeal of the areas immediately affected by the work being performed would occur. Revegetation of impacted areas will be completed, and debris will be removed from the site following construction, thus returning the site to pre-construction conditions. The current bridge crossing and roads will be rehabilitated and remain in generally the same footprint with limited improvements. This impact is considered less than significant. Implementation of SPR AES-1 will help further reduce visual impacts.

Except as provided in Public Resources Code Section 21099, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Would the project create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

No Impact.

Lighting is not an element of the Proposed Project, and all work will be conducted during daylight hours, and as such, no permanent new light sources will be introduced into the landscape. Therefore, there will be no impact associated with light and glare.

4.1.3 Mitigation Measures/PSR/SPR

No significant impacts were identified, and no Mitigation Measures (MMs) are required. SPR-AES-1 has been applied to the Project to further minimize the less than significant impacts.

SPR AES-1: Materials Storage. The Project contractor will store all Project-related materials outside of the viewshed of the BNVSP Day Use Road/Bothe State Park Road, at the staging area behind the maintenance yard west of the kiosk.

4.2 Agriculture Resources and Forestry Services

4.2.1 Environmental Setting

The Proposed Project Area is located within BNVSP to the west of Highway 128 and to the south of Calistoga. It is a moderately trafficked park that features a perennial creek (Ritchey Creek), oak woodlands, riparian woodland, and large stands of coast redwood (*Sequioa sempervirens*). The plant communities present within the Project Area include mixed woodland, oak woodland, riparian woodland, and disturbed grassland. The terrain is relatively flat with the exception of the riparian woodland surrounding Ritchey Creek which consists of steep, eroded banks, large boulders, mounded vegetation, and root balls of oak trees.

The California Department of Conservation (DOC) has classified Important Farmland in Napa County by the following categories:

- *Prime Farmland* – Farmland with the best combination of physical and chemical features able to sustain long-term production of agricultural crops.
- *Farmland of Statewide Importance* – Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or with less ability to hold and store moisture.
- *Unique Farmland* – Farmland of lesser quality soils used for the production of the state's leading agricultural crops.
- *Farmland of Local Importance* – Land of importance to the local agricultural economy, as determined by each county's board of supervisors and a local advisory committee.
- *Grazing Land* – Land on which the existing vegetation is suited to the grazing of livestock.
- *Urban and Built-up Land* – Land occupied by structures with a building density of at least one unit to 1.5 acres, or approximately six structures to a 10-acre parcel.
- *Other Land* – Land not included in any other mapping category is included as other land. Common examples include low-density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry, or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is also mapped as Other Land.

The Proposed Project Area is in the vicinity of Important Farmland based on the DOC criteria but is not designated as Important Farmland itself. There is an area of Prime Farmland on the opposite side of Highway 128 east of the park, and two small areas that are designated as Urban and Built-Up Land both to the north and south of BNVSP. Agricultural uses in the vicinity of the Project Area consist of scattered vineyards to the north and south of the park and intensive vineyards on the valley floor to the east across Highway 128.

4.2.2 Agriculture and Forestry Resources (II) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒

No Impact.

No designated agricultural lands exist on the Proposed Project Area. The Proposed Project would not result in the conversion of farmland to a non-agricultural use. Therefore, no impacts would occur to farmlands.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒

No Impact.

The Proposed Project Area is not zoned for agriculture use and is not under a Williamson Act contract. Therefore, no impacts would occur to Williamson Act land.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220[g]), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104[g])?	☐	☐	☐	☒

No Impact.

The Proposed Project Area is not located within zoned forest land or timberland. Therefore, there will be no impact to existing zoning.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒

No Impact.

The Proposed Project would not result in the loss or conversion of forest land to non-forest use. No impact would occur with the implementation of the Proposed Project.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

No Impact.

No designated agricultural lands exist within the Project Area. The Proposed Project would not result in the conversion of farmland or forestland to a non-agricultural use. The Proposed Project Area is not zoned for agriculture and is not under a Williamson Act contract. No impact to agricultural and timber resources would occur with the implementation of the Proposed Project.

4.2.3 Mitigation Measures/PSR/SPR

No significant impacts were identified, and no MMs are required. Additionally, no SPRs or PSRs have been applied to the Project.

4.3 Air Quality

4.3.1 Environmental Setting

The Proposed Project is located in Napa County. The California Air Resources Board (CARB) has divided California into regional air basins according to topographic features. Napa County is located in a region identified as the San Francisco Bay Area Air Basin (SFBAAB). The SFBAAB is approximately 5,600 square miles in area and consists of nine counties that surround the San Francisco Bay, including all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties; the southwestern portion of Solano County; and the southern portion of Sonoma County. The topography of the SFBAAB is characterized by complex terrain, consisting of coastal mountain ranges, inland valleys and bays. This complex terrain, especially the higher elevations, distorts the normal wind flow patterns in the SFBAAB. The greatest distortions occur when low-level inversions are present and the air beneath the inversion flows independently of air above the inversion, a condition that is common in the summertime.

Both the U.S. Environmental Protection Agency (USEPA) and CARB have established ambient air quality standards for common pollutants. These ambient air quality standards are levels of contaminants representing safe levels that avoid specific adverse health effects associated with each pollutant. The ambient air quality standards cover what are called "criteria" pollutants because the health and other effects of each pollutant are described in criteria documents. The six criteria pollutants are ozone (O_3), carbon monoxide (CO), Particulate Matter (PM), nitrogen oxides (NO_x), sulfur dioxide, and lead. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas. The portion of Napa County encompassing the Project Area is designated as a nonattainment area for the state standards for O_3, Particulate Matter Less than 2.5

Microns in Diameter ($PM_{2.5}$) and Particulate Matter Less than 10 Microns in Diameter (PM_{10}) and is designated as a nonattainment area for the federal standards of O_3 and $PM_{2.5}$ (CARB 2022b).

The local air quality regulating authority in the portion of Napa County encompassing the Project Area is the Bay Area Air Quality Management District (BAAQMD). The BAAQMD's primary responsibility is ensuring that the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) are attained and maintained in the Napa County portion of the SFBAAB. The BAAQMD is also responsible for adopting and enforcing rules and regulations concerning air pollutant sources, issuing permits for stationary sources of air pollutants, inspecting stationary sources of air pollutants, responding to citizen complaints, monitoring ambient air quality and meteorological conditions, awarding grants to reduce motor vehicle emissions, and conducting public education campaigns, as well as many other activities.

The following provisions are applicable to the Proposed Project are summarized as follows:

- *Regulation 2, Rule 1, General Permit Requirements:* Includes criteria for issuance or denial of permits, exemptions, appeals against decisions of the Air Pollution Control Officer and BAAQMD actions on applications.
- *Regulation 2, Rule 2, New Source Review:* Applies to new or modified sources and contains requirements for Best Available Control Technology and emission offsets. Rule 2 implements federal New Source Review and Prevention of Significant Deterioration requirements.
- *Regulation 6, Rule 1, General Requirements:* Limits the quantity of PM in the atmosphere by controlling emission rates, concentration, visible emissions and opacity.
- *Regulation 6, Rule 6, Prohibition of Trackout:* Controls trackout of solid material onto public paved roads from three types of sites: large bulk material sites, large construction sites, and large disturbed area sites. Under this regulation, the owners and operators of a construction site are required to clean up trackout on public roadways within four hours of identification and at the conclusion of each workday. The rule also includes requirements regarding the emission of fugitive dust during cleanup of trackout, and requirements for monitoring and reporting trackout at regulated sites.
- *Regulation 7, Odorous Substances:* Regulation 7 places general limitations on odorous substances and specific emission limitations on certain odorous compounds. A person (or facility) must meet all limitations of this regulation but meeting such limitations shall not exempt such person from any other requirements of BAAQMD, state, or national law. The limitations of this regulation shall not be applicable until BAAQMD receives odor complaints from ten or more complainants within a 90-day period, alleging that a person has caused odors perceived at or beyond the property line of such person and deemed to be objectionable by the complainants in the normal course of their work, travel, or residence. When the limits of this regulation become effective, as a result of citizen complaints described above, the limits shall remain effective until such time as no citizen complaints have been received by BAAQMD for one year. The limits of this Regulation shall become applicable again if BAAQMD receives odor complaints from five or more complainants

within a 90-day period. BAAQMD staff investigate and track all odor complaints it receives and make attempts to visit the site and identify the source of the objectionable odor and assist the owner or facility in finding a way to reduce the odor.

4.3.1.1 Bay Area Air Quality Management District Best Management Practices

The BAAQMD recommends quantifying a proposed project's construction-generated emissions by implementing the BMPs for dust and exhaust construction impacts in CEQA compliance documentation. If additional construction measures are required to reduce construction-generated emissions, the Enhanced BMPs should then be applied. Table 4.3-1 identifies the Basic and Enhanced BMPs. In addition, all projects must implement any applicable air toxic control measures. For example, projects that have the potential to disturb asbestos (from soil or building materials) must comply with all the requirements of CARB's air toxic control measures for construction and grading.

Table 4.3-1. BAAQMD Basic and Enhanced Construction Best Management Practices

BAAQMD Basic Construction Best Management Practices
All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
All vehicle speeds on unpaved roads shall be limited to 15 miles per hour
All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.
Publicly visible signs shall be posted with the telephone number and name of the person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's General Air Pollution Complaints number shall also be visible to ensure compliance with applicable regulations.
BAAQMD Enhanced Best Management Practices
Limit the simultaneous occurrence of excavation, grading, and ground-disturbing construction activities.
Install wind breaks (e.g., trees, fences) on the windward side(s) of actively disturbed areas of construction. Wind breaks should have at maximum 50 percent air porosity.
Plant vegetative ground cover (e.g., fast-germinating native grass seed) in disturbed areas as soon as possible and watered appropriately until vegetation is established.
Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.
Minimize the amount of excavated material or waste materials stored at the site.

Table 4.3-1. BAAQMD Basic and Enhanced Construction Best Management Practices
Hydroseed or apply non-toxic soil stabilizers to construction areas, including previously graded areas that are inactive for at least 10 calendar days.

Notes: BAAQMD = Bay Area Air Quality Management District

4.3.2 Air Quality (III) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒

No Impact.

As part of its enforcement responsibilities, the USEPA requires each state with nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the federal standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. Similarly, under state law, the California Clean Air Act requires an air quality attainment plan to be prepared for areas designated as nonattainment with regard to the NAAQS and CAAQS. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date.

As previously described, the BAAQMD is the agency responsible for enforcing many federal and state air quality requirements and for establishing air quality rules and regulations. The BAAQMD attains and maintains air quality conditions in Napa County through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. The most recently adopted air quality plan is the BAAQMD's 2017 Clean Air Plan, the primary goals of which are to protect public health and the climate. The 2017 Clean Air Plan includes a wide range of control measures and actions to reduce combustion-related activities, decrease combustion of fossil fuels, improve energy efficiency, and reduce emissions of potent GHGs. Several measures address the reduction of multiple pollutants such as O_3 precursors, PM, air toxics, and GHG emissions.

Determination of whether a project supports the 2017 Clean Air Plan goal of achieving attainment status in the SFBAAB is completed by a comparison of Project-estimated emissions with BAAQMD thresholds of significance, which are established based on achieving SFBAAB-wide pollutant concentrations at attainment levels. If Project emissions would not exceed the thresholds of significance after the application of all feasible MMs, the Project is consistent with the 2017 Clean Air Plan. As shown in Table 4.3-2 below, emissions generated during Project construction would not exceed the BAAQMD's significance thresholds during construction and the Project would not increase operational emissions beyond current conditions. Therefore, the Project would not conflict with or obstruct reduction measures presented in the 2017 Clean Air Plan. There would be no impact.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☒	☐

Less than Significant Impact.

By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's individual emissions exceed its identified significance thresholds, the project would be cumulatively considerable. Projects that do not exceed significant thresholds would not be considered cumulative considerable.

Air quality impacts were assessed in accordance with methodologies recommended by the BAAQMD. Where criteria air pollutant quantification was required, emissions were modeled using the California Emissions Estimator Model (CalEEMod), version 2022.1. CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. Project construction-generated air pollutant emissions were calculated using CalEEMod model defaults for Napa County in addition to the construction timeline provided by the Project proponent. As the Project is proposing to restore the channel crossing at Park's Day Use Road/Bothe State Park Road as well as re-paving at two additional locations within the park, operational air pollutant emissions are discussed qualitatively.

4.3.2.1 Project Construction

Construction Significance Analysis

Emissions associated with Project construction would be temporary and short-term but have the potential to represent a significant air quality impact. Three basic sources of short-term emissions will be generated through construction of the Proposed Project: operation of the construction vehicles (i.e., tractors, forklifts, pavers), the creation of fugitive dust during clearing and grading, and the use of asphalt or other oil-based substances during paving and coating activities. Construction activities such as excavation and grading operations, construction vehicle traffic, and wind blowing over exposed soils would generate exhaust emissions and fugitive PM emissions that affect local air quality at various times during construction. Effects would be variable depending on the weather, soil conditions, the amount of activity taking place, and the nature of dust control efforts. The dry climate of the area during the summer months creates a high potential for dust generation.

Construction-generated emissions associated with the Proposed Project were calculated using the CARB-approved CalEEMod computer program, which is designed to model emissions for land use development

projects, based on typical construction requirements. See Appendix A for more information regarding the construction assumptions, including construction equipment and duration, used in this analysis.

Predicted average daily construction-generated emissions for the Proposed Project are summarized in Table 4.3-2. Construction-generated emissions are short-term and of temporary duration, lasting only as long as construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the BAAQMD's thresholds of significance.

Table 4.3-2. Construction-Related Emissions

Construction Year	Pollutant (average pounds per day)					
	ROG	**NO_x**	**PM_{10} (exhaust)**	**$PM_{2.5}$ (exhaust)**	**PM_{10} (fugitive dust)**	**$PM_{2.5}$ (fugitive dust)**
Construction Year One	0.36	3.52	0.14	0.13	0.37	0.07
BAAQMD Potentially Significant Impact Threshold	*54*	*54*	*82*	*82*	*Basic Construction Best Management Practices*	*Basic Construction Best Management Practices*
Exceed BAAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Notes: BAAQMD = Bay Area Air Quality Management District; NO_x = nitrogen oxides; $PM_{2.5}$ = Particulate Matter Less than 2.5 Microns in Diameter; PM_{10} = Particulate Matter Less than 10 Microns in Diameter; ROG = Reactive Organic Gas
Emissions estimates account for the quantifiable dust-reduction measures that are also approved methods within the BAAQMD Basic Construction Best Management Practices, such as watering unpaved portions of the construction site twice daily and limiting off-road equipment to slower speeds.

Source: California Emissions Estimator Model version 2022.1. Refer to Appendix A for Model Data Outputs.

As shown in Table 4.3-2, emissions generated during Project construction would not exceed the BAAQMD's numeric thresholds of significance during construction. It is noted that the BAAQMD thresholds for fugitive dust emissions are not numeric, but instead rely on the implementation of BAAQMD BMPs (see Table 4.3-1 above) to be considered less than significant. Thus, the Proposed Project would need to incorporate BAAQMD Basic BMPs in order to be considered less than significant. This requirement is contained in MM AQ-1. With implementation of MM AQ-1, this impact is less than significant and criteria pollutant emissions generated during Project construction would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable state ambient air quality standard, and no health effects from Project criteria pollutants would occur. Implementation of SPR AIR-1 through SPR AIR-3 will help further reduce impacts.

4.3.2.2 Project Operations

Operational Significance Analysis

The Proposed Project would not include the provision of new permanent stationary or mobile sources of criteria air pollutant emissions, and therefore, by its very nature, would not generate quantifiable criteria

emissions from Project operations. The Project is proposing restoration to the channel at the Day Use Road crossing of Ritchie Creek as well as re-paving various existing roads. The Proposed Project's operations would not require any new crew or staff beyond current conditions; therefore, once the Proposed Project is implemented, there would be no increase in automobile trips to the area. Thus, the increases in any criteria pollutant emissions associated with the Project would not be substantial. No impact would occur.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐

Less than Significant Impact.

Sensitive receptors are defined as facilities or land uses that include 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 these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over age 65, children under age 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.

The Project is proposing restoration to the channel at the Day Use Road crossing of Ritchie Creek as well as re-paving various existing roads/ parking areas encompassing three locations within the park. The nearest sensitive receptors to the proposed improvements are residences located directly northeast of the Park's Day Use Road/Bothe State Park Road crossing at Ritchie Creek.

Construction-Generated Air Contaminants

Construction-related activities would result in temporary, short-term Proposed Project-generated emissions of Diesel Particulate Matter (DPM), Reactive Organic Gases (ROG), NO_x, CO, and PM_{10} from the exhaust of off-road, heavy-duty diesel equipment for site preparation (e.g., clearing, grading); soil hauling truck traffic; paving; and other miscellaneous activities. The portion of the SFBAAB which encompasses the Project Area is designated as a nonattainment area for federal O_3 and $PM_{2.5}$ standards and is also a nonattainment area for the state standards for O_3, $PM_{2.5}$ and PM_{10} (CARB 2022a). Thus, existing O_3, PM_{10}, and $PM_{2.5}$ levels in the SFBAAB are at unhealthy levels during certain periods. However, as shown in Table 4.3-2, the Project would not exceed the BAAQMD's significance thresholds for emissions.

The health effects associated with O_3 are generally associated with reduced lung function. O_3 is not emitted directly into the air but is formed through complex chemical reactions between precursor emissions of ROG and NO_x in the presence of sunlight. The reactivity of O_3 causes health problems because it damages lung tissue, reduces lung function and sensitizes the lungs to other irritants. Scientific evidence indicates that ambient levels of O_3 not only affect people with impaired respiratory systems, such as asthmatics, but healthy adults and children as well. Exposure to O_3 for several hours at relatively

low concentrations has been found to significantly reduce lung function and induce respiratory inflammation in normal, healthy people during exercise. This decrease in lung function generally is accompanied by symptoms including chest pain, coughing, sneezing and pulmonary congestion.

Studies show associations between short-term O_3 exposure and non-accidental mortality, including deaths from respiratory issues. Studies also suggest long-term exposure to O_3 may increase the risk of respiratory-related deaths. The concentration of O_3 at which health effects are observed depends on an individual's sensitivity, level of exertion (i.e., breathing rate), and duration of exposure. Studies show large individual differences in the intensity of symptomatic responses, with one study finding no symptoms to the least responsive individual after a 2-hour exposure to 400 parts per billion of O_3 and a 50 percent decrement in forced airway volume in the most responsive individual. Although the results vary, evidence suggests that sensitive populations (e.g., asthmatics) may be affected on days when the 8-hour maximum O_3 concentration reaches 80 parts per billion. Because the Project would not involve construction activities that would result in O_3 precursor emissions (ROG or NO_x) in excess of the BAAQMD thresholds, which are set to be protective of human health and account for cumulative emissions in the SFBAAB, the Project is not anticipated to substantially contribute to regional O_3 concentrations and the associated health impacts.

CO tends to have a localized impact associated with congested intersections. In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions. The Project would not involve construction activities that would result in CO emissions in excess of the BAAQMD thresholds, which are set to be protective of human health and account for cumulative emissions in the SFBAAB. Thus, the Project's CO emissions would not contribute to the health effects associated with this pollutant.

PM (PM_{10} and $PM_{2.5}$) contains microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems. PM exposure has been linked to a variety of problems, including premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms such as irritation of the airways, coughing, or difficulty breathing. For construction activity, DPM is the primary Toxic Air Contaminant (TAC) of concern. PM_{10} exhaust is considered a surrogate for DPM as it contains $PM_{2.5}$ as a subset and all diesel exhaust is considered to be DPM. As with O_3 and NO_x, the Project would not generate emissions of PM_{10} or $PM_{2.5}$ that would exceed the BAAQMD's thresholds. The increases of these pollutants generated by the Proposed Project would not on their own generate an increase in the number of days exceeding the NAAQS or CAAQS. Therefore, PM_{10} and $PM_{2.5}$ emissions, when combined with the existing PM emitted regionally, would have minimal health effect on people located in the immediate vicinity of the Project Area. Additionally, the Project's PM_{10} and $PM_{2.5}$ emissions are not expected to cause any increase in related regional health effects from these pollutants.

In summary, Project construction would not result in a potentially significant contribution to regional concentrations of nonattainment pollutants. Therefore, the Project would not result in a significant contribution to the adverse health impacts associated with those pollutants. Implementation of SPR AIR-1 through SPR AIR-3 will help further reduce fugitive dust and construction impacts.

Operational Air Contaminants

Implementation of the Proposed Project would not result in the development of any substantial sources of air toxics. There are no stationary sources associated with the implementation of the Project. The Project would not attract heavy-duty trucks, a substantial source of DPM emissions, which spend long periods queuing and idling at the site. Therefore, the Project would not be a significant source of TACs after implementation. The Project would not result in a potentially significant contribution to regional concentrations of nonattainment pollutants and would not result in a significant contribution to the adverse health impacts associated with those pollutants. A less than significant impact would occur.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☐	☒

No Impact.

Typically, odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals have the ability to smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; in fact, an odor that is offensive to one person (e.g., from a fast-food restaurant) may be perfectly acceptable to another. It is also important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

During construction, the Proposed Project presents the potential for generation of objectionable odors in the form of diesel exhaust in the immediate vicinity of the site. However, these emissions are short-term in nature and will rapidly dissipate and be diluted by the atmosphere downwind of the emission sources. Additionally, odors would be localized and generally confined to the construction area. Therefore, construction odors would not adversely affect a substantial number of people to odor emissions.

Typical land uses considered to be potential sources of obnoxious odorous emissions include agriculture (farming and livestock), wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, landfills, dairies, and fiberglass molding. The Proposed Project does not include any uses identified as being associated with odors. Therefore, there is no impact from the Proposed Project on odors.

4.3.3 Mitigation Measures/PSR/SPR

No significant impacts were identified and no MMs are required. SPRs AIR-1 through AIR-3 have been applied to further reduce the less than significant impacts.

SPR AIR-1: **Fugitive Dust and Ozone.** The following shall be conducted prior to initiation or during Project construction:

- Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The San Francisco Bay Area Air Basin phone number shall also be visible to ensure compliance with applicable regulations.
- All trucks hauling soil, sand, or other loose materials on public roads will be covered or required to maintain at least two feet of freeboard.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).
- All construction-related equipment and engines will be maintained in proper tune (according to manufacturer's specifications), and in compliance with all State and federal requirements.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Clear signage shall be provided for construction workers at all access points.
- Earth or other material that has been transported onto paved roadways by trucks, construction equipment, erosion, or other Project-related activity will be promptly removed.

SPR AIR-2: **Fugitive Dust and Ozone.** During dry, dusty conditions, all active construction areas will be lightly sprayed with dust suppressant to reduce dust without causing runoff.

SPR AIR-3: **Fugitive Dust and Ozone.** The following shall be conducted prior to and during Project construction:

- All trucks or light equipment hauling soil, sand, or other loose materials on public roads will be covered or required to maintain at least two feet of freeboard.
- All gasoline-powered equipment will be maintained according to manufacturer's specifications, and in compliance with all State and federal requirements.
- Paved streets adjacent to the park shall either be swept or washed at the end of each day, or as required, to remove excessive accumulations of silt and/or mud that could have resulted from Project-related activities.

Excavation and grading activities will be suspended when sustained winds exceed 25 mph, instantaneous gusts exceed 35 mph, or when dust occurs from remediation related activities where visible emissions (dust) cannot be controlled by watering or conventional dust abatement controls.

4.4 Biological Resources

This section is based on the analysis and recommendations presented in the Biological Resources Assessment (BRA) prepared for the proposed Ritchey Creek Day-Use Road Culvert Replacement Project (ECORP DRAFT; Appendix B). As part of preparing the BRA, ECORP conducted reconnaissance-level site visits on April 8 and June 24 of 2022, and May 17 and July 7 of 2023 (ECORP 2023; Appendix C). The Project Area was systematically surveyed on foot using a Trimble Global Positioning System (GPS) unit with sub-meter accuracy, topographic maps, and aerial imagery to ensure total site coverage. Special attention was given to identifying those portions of the Project Area with the potential to support special-status species and sensitive habitats. During the field survey, biological communities occurring onsite were characterized. In addition to the reconnaissance survey, a focused special-status plant and animal survey, an Aquatic Resources Delineation (ARD), and a literature review were conducted.

4.4.1 Methods

4.4.1.1 Literature Review

ECORP biologists performed a review of existing available information for the Biological Study Area (BSA). Literature sources included current and historical aerial imagery, any previous biological studies conducted for the area, topographic mapping, soil survey mapping available from the Natural Resources Conservation Service (NRCS) *Web Soil Survey*, USFWS National Wetlands Inventory mapping, USFWS Critical Habitat Mapper, NMFS Essential Fish Habitat (EFH) Mapper, and other relevant literature as cited throughout this document. ECORP reviewed the following resources to identify special-status plant and wildlife species that have been documented in or near the BSA:

- CDFW's California Natural Diversity Database data for the "Calistoga, California" 7.5-minute quadrangle and the surrounding eight quadrangles
- California Native Plant Society (CNPS) Rare Plant Inventory data for the "Calistoga, California" 7.5-minute quadrangle and the surrounding eight quadrangles
- USFWS Information for Planning and Consultation Resource Report List for the BSA

- NMFS Resources data for the "Calistoga, California" 7.5-minute quadrangle

The results of the database queries are provided in Appendix B. Each special-status species identified in the literature review is evaluated for its potential to occur in the BSA in Section 4 based on available information concerning species habitat requirements and distribution, occurrence data, and the findings of the site reconnaissance.

4.4.1.2 Site Reconnaissance

ECORP biologists Hannah Kang and Krissy Walker-Berry conducted site reconnaissance visits during rare plant surveys on April 8 and June 24 of 2022, and May 17 and July 7 of 2023. The biologists visually assessed the BSA while walking meandering transects through all portions of the site, using binoculars to scan inaccessible areas. The biologist(s) collected the following biological resource information:

- Characteristics and approximate boundaries of vegetation communities and other land cover types.
- Plant and animal species or their sign directly observed.
- Characteristics and approximate extents of potential aquatic resources observed.
- Incidental observations of special habitat features such as burrows, active raptor nests, or potential bat roost sites.

The biologists qualitatively assessed and mapped vegetation communities based on dominant plant composition. Vegetation community classification was based on the classification systems presented in *A Manual of California Vegetation* (MCV), paying special attention to identifying those portions of the BSA with the potential to support special-status species or sensitive habitats. Data were recorded on a GPS unit, field notebooks, and/or maps. Photographs were taken during the survey to provide visual representation of the conditions within the BSA.

4.4.1.3 Focused Surveys

The following field surveys were conducted, and technical reports prepared to assess and document biological resources within the BSA:

- BRA
- Special-Status Plant Survey
- Aquatic Resource Delineation

ECORP observed three vegetation communities and two land cover types within the Project Area. The three vegetation communities are oak woodland, riparian woodland, and mixed woodland; the two land cover types are disturbed and developed. A full list of plants observed onsite can be found in Appendix C of the Special-Status Plant Survey Report (Appendix C). The approximate extent of vegetation communities and land cover types are depicted on Figure 4.4-1. No sensitive vegetation communities were present within the Project Area.

4.4.1.4 Environmental Setting

The Project is located within BNVSP to the west of Highway 128 and to the south of Calistoga. It is a moderately trafficked park that features a perennial creek (Ritchey Creek), oak woodlands, riparian woodland, and large stands of coast redwood (*Sequioa sempervirens*). Within the BSA itself, there is the access road into the park, a small parking area adjacent to the visitor center, a bridge over Ritchey Creek, and the surrounding undeveloped woodlands and grasslands. The plant communities present within the BSA include mixed woodland, oak woodland, riparian woodland, and disturbed grassland. The disturbed grassland includes an old homestead and a residence for park employees. This area is maintained by mowing and trimming of vegetation. The terrain is relatively flat within the BSA, with the exception of the riparian woodland surrounding Ritchey Creek which consists of steep, eroded banks, large boulders, mounded vegetation, and root balls of oak trees. Generally, the terrain is sloped downhill to the northeast towards Napa Valley and the Napa River.

The BSA is situated at an elevational range of approximately 340 to 430 feet above mean sea level in the Outer North Coast Ranges District of the North Coast Ranges Subregion within the Northwestern California Region of the California floristic province. The average winter low temperature is 39.7 degrees Fahrenheit (˚F), and the average summer high temperature is 87.7˚F; the average annual precipitation is approximately 38.58 inches at the Calistoga station, which is approximately 3.5 miles from the BSA (NOAA 2023).

Land uses surrounding the BSA include agriculture, primarily viticulture, rural residential, and a Napa County Fire Department Station.

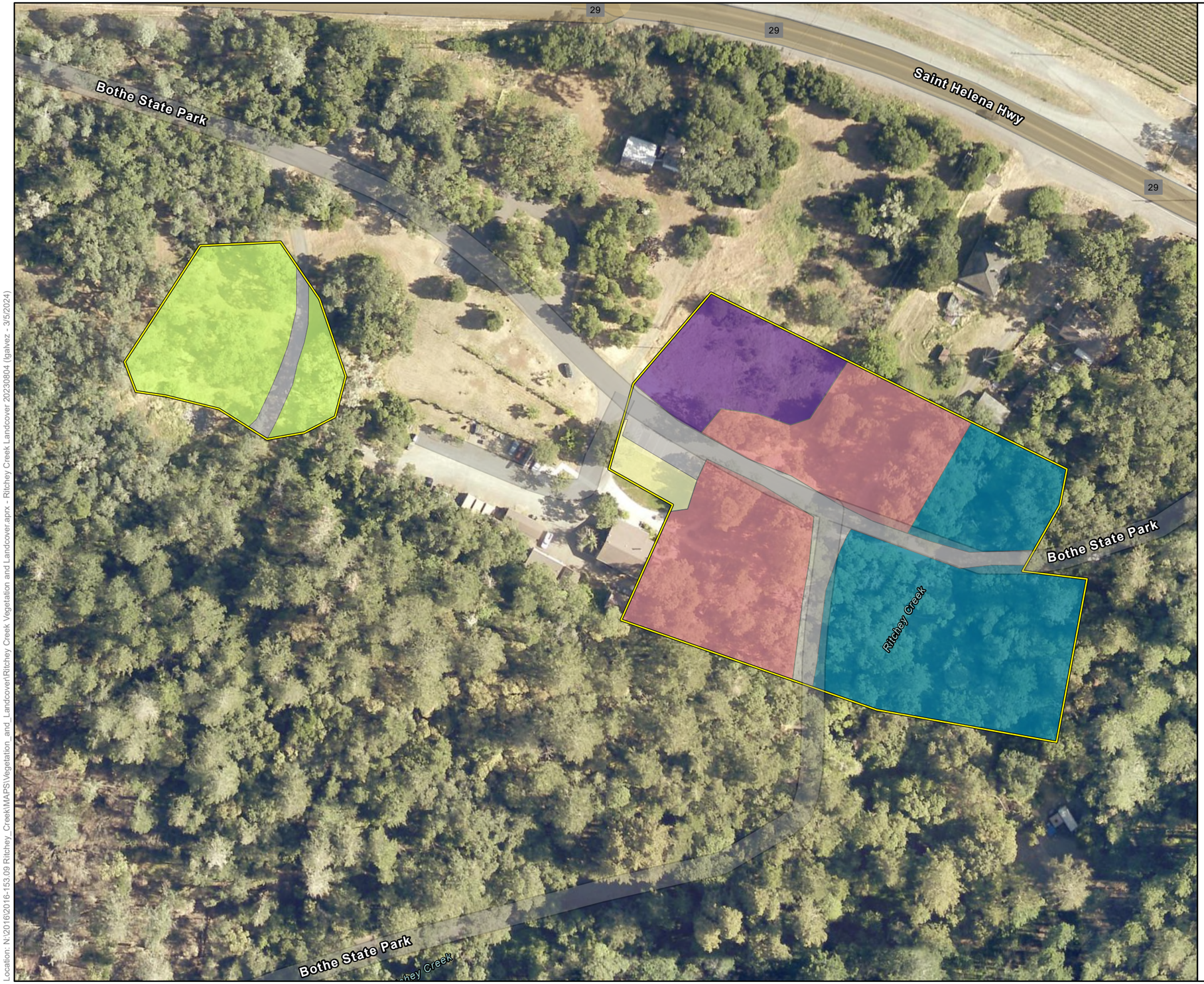
Representative photographs of the BSA are provided in Appendix F of the BRA, provided as Appendix B.

4.4.1.5 Vegetation Communities

The following sections describe vegetation communities and land cover types observed in the BSA during the site assessment. A full list of plants observed can be found in Appendix B. A full list of plants observed onsite can be found in Appendix B. The approximate extent of vegetation communities and land cover types are depicted on Figure 4.4-1. No sensitive vegetation communities were present within the Project Area.

Oak woodland

Within the Project Area, the oak woodland is dominated by a mixture of oaks in the tree layer including coast live oak *(Quercus agrifolia*), blue oak (*Quercus douglasii),* black oak (*Quercus kelloggii*)*,* and valley oak (*Quercus lobata*). The understory is composed of shrubs whiteleaf manzanita (*Arctostaphylos viscida*) and coyote bush (*Baccharis pilularis*), and nonnative herbaceous species ripgut brome (*Bromus diandrus*), hairy vetch (*Vicia villosa*), and Italian thistle (*Carduus pycnocephalus*). The oak woodland is located on the west side of the Project Area.



Map Contents

Project Area - 3.78 acres

Vegetation Communities

- Disturbed Grassland - 0.39 ac.
- Mixed Woodland - 1.10 ac.
- Oak Woodland - 0.61 ac.
- Riparian Woodland - 1.23 ac.

Land Cover Type

- Developed - 0.38 ac.
- Disturbed - 0.07 ac.

Sources: Esri Imagery, 2021 Napa County Orthos



Location: N:\2016\2016-153.09 Ritchey_Creek\MAPS\Vegetation_and_Landcover\Ritchey Creek Vegetation and Landcover.aprx - Ritchey Creek Landcover 20230804 (lgalvez - 3/5/2024)

Map Date: 9/26/2023

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Scale in Feet
0 50 100

Figure 4.4-1. Vegetation Communities

2016-153.09 Ritchey Creek

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This vegetation community most resembles the *Quercus* (*agrifolia, douglasii, garryana, kelloggii, lobata, wislizeni*) Forest and Woodland Alliance as characterized by MCV. This alliance has a state rarity ranking of S4 and is not considered a sensitive vegetation community. Mixed oak forest and woodland has a state and global rarity of S4 and G4 and is not considered a sensitive vegetation community.

Riparian Woodland

The riparian woodland is dominated by white alder (*Alnus rhombifolia*) and bigleaf maple (*Acer macrophylla*) with scattered California bay laurel (*Umbellularia californica*). The understory is dominated by California strawberry (*Fragaria vesca)*, California wild grape (*Vitus californica*), annual honesty (*Lunaria annua*), and periwinkle (*Vinca major*). The riparian woodland is located on the east side of the Project Area adjacent to and east of Ritchey Creek.

This vegetation community most resembles the *Alnus rhombifolia* Forest and Woodland Alliance as characterized by MCV. White alder groves have a state and global rarity of S4 and G4 and are not considered a sensitive vegetation community.

Mixed Woodland

The mixed woodland vegetation community is dominated by a mixture of coast live oak and madrone (*Arbutus menziesii*), with scattered California bay laurel, big leaf maple, and Douglas fir (*Pseudotsuga menziesii)* in the tree layer. The understory is composed of a mixture of shrubs including blue elderberry (*Sambucus mexicana*), Himalayan blackberry (*Rubus armeniacus*), coyote bush (*Baccharis pilularis*), and California buckeye (*Aesculus californica*). The mixed woodland is located in the center of the Project Area, west of Ritchey Creek.

This vegetation community most resembles the *Arbutus menziesii* Forest Alliance as characterized by the MCV. Madrone forest has a state and global rarity of S4 and G4 and is not considered a sensitive vegetation community.

Disturbed Grassland

The disturbed grassland community is dominated by wild oat (*Avena fatua*), soft brome (*Bromus hordeaceus*), and Italian thistle. Sporadic trees and shrubs include valley oak and coyote bush. The disturbed grassland has been partially mowed and has evidence of past disturbance. It is located in the center of the Project Area, north of Daily Use Road/Bothe State Park Road.

This vegetation community most resembles the *Avena* spp. - *Bromus* spp. Herbaceous Semi-Natural Alliance as characterized by MCV. Semi-natural alliances are strongly dominated by nonnative plants that have become naturalized in the state, do not have state rarity rankings, and are not considered sensitive natural communities.

Disturbed

The disturbed land cover consists of areas in which vegetation has been heavily impacted by anthropogenic disturbance. Within the Project Area, vegetation has been mowed and consisted of sparse patches of nonnative grasses and herbs such as English plantain (*Plantago lanceolata),* Bermuda grass (*Cynodon dactlyon),* and common dandelion (*Taraxacum officinale).* The disturbed land cover is in the center of the Project Area north of the Visitor's Center and south of the Day Use Road/Bothe State Park Road. Disturbed land cover is not a vegetation community and does not have a state or global rarity ranking.

Developed

The developed land cover type consists of paved parking areas or gravel, roads, and structures including storage sheds and buildings. These areas are mostly devoid of vegetation but could support weedy vegetation in patches, such as along roadsides. Developed land cover is not a vegetation community and does not have a state or global rarity ranking.

4.4.1.6 Wildlife

The mixed woodland, oak woodland, riparian woodland, and disturbed grassland vegetation communities in the Project Area provide habitat for a variety of wildlife species. Wildlife species observed onsite include grey fox (*Urocyon cineroargenteus*), western gray squirrel (*Sciurus griseus*), Steller's jay (*Cyanocitta stelleri*), and oak titmouse (*Baeolophus inornatus*). Other species typically associated with the vegetation communities found in the BSA include black-tailed deer (*Odocoileus hemionus* ssp. *columbianus*), Acorn woodpecker (*Melanerpes formicivorus*), red-shouldered hawk (*Buteo lineatus*), northern Pacific rattlesnake (*Crotalus oreganus* ssp. *oreganus*), rough-skinned newt (*Taricha granulosa*), and California newt (*Taricha torosa*). A full list of wildlife species observed in the BSA is provided in Appendix B.

4.4.1.7 Aquatic Resources

Hydrology onsite is influenced by precipitation, surface water runoff, geologic stratigraphy, topography, soil permeability, and plant cover. Ritchey Creek is a northeast draining perennial stream that runs through the study area. The stream flows northeast through the study area and crosses under St. Helena Highway (State Route [SR] 128) approximately 300 feet downstream of the study area. From here it travels northeast in vegetated ditches through agricultural fields for 0.7 mile until it joins the Napa River.

There are two aquatic features onsite: Ritchey Creek and a seep fed roadside ditch. Ritchey Creek, a perennial stream, is present in the study area as a natural creek channel upstream and downstream of a pair of culverts that cross under the Day Use Road/Bothe State Park Road. The perennial stream below the Ordinary High Water Mark (OHWM) in the channel totals 0.075 acre and 239 LF. The two culverts are approximately 37 LF long and total 0.006 acre based on OHWM measurements.

Also in the study area, there is a roadside ditch that appears to be fed by a seep. The portion in the study area totals 0.002 acre and 41 LF.

There are no aquatic features in the staging area.

Potential Waters of the U.S.

Ritchey Creek is a tributary to navigable water. The creek flows northeast through the study area, and crosses under St. Helena Highway (SR-128) approximately 300 feet downstream of the study area. From here it travels northeast in vegetated ditches through agricultural fields for 0.7 mile until it joins the Napa River. The Napa River drains south for 45 miles until it empties into San Pablo Bay just west of the Carquinez Strait, near Vallejo.

Wetlands

Perennial Stream

Ritchey Creek is a perennial stream. The channel in the study area is well defined with a bed and bank and evidence of scour. The OHWM averaged 15-feet wide upstream of the culverts and 12-feet wide downstream of the culverts. OHWM indicators observed included shelving, drift and debris, a change in sediment texture, and a change in vegetation.

Seep Fed Ditch

There is a roadside ditch that appears to be fed by a seep. Upstream of the study area is a small ponded area filled with cattails (*Typha* sp.). This ponded area drains in a linear ditch with a defined OHWM, through the study area, and toward a culvert that passes under Day Use Road/Bothe State Park Road. During the site visit, the ditch had water in it, but water was not flowing into the culvert. The culvert passes under the road and ends in a field across the road. There were no signs of wetlands or an OHWM at the culvert outlet and water does not appear to flow regularly. OHWM indicators observed included shelving and drift and debris.

The seep fed ditch does not have a clear connection to Ritchey Creek or any other aquatic feature.

4.4.1.8 Special-Status Species

The BRA lists all the special-status plant and wildlife species identified as potentially occurring within the Study Area through literature and database searches identified in the BSA (Appendix B). Included in the BRA are the listing status for each species, a brief habitat description, and a determination on the potential to occur within the Study Area. Following is an overview of the results of the literature inquiries and fieldwork.

Special-Status Plants

Database queries and literature review identified 109 special-status plant species with potential to occur within the Project Area (Appendix B, Table 1). However, upon further analysis and after the site visit, 71 species were determined to be absent from the Project Area due to the lack of suitable habitat. Brief descriptions of the remaining 38 species that have the potential to occur within the Project Area are presented in the BRA. (Appendix B)

Special-Status Wildlife

Invertebrates

Four special-status invertebrate species were identified as having potential to occur within the Project Area based on the database queries and literature review. However, upon further analysis and after the site visit, two species were determined to be absent from the Project Area due to the lack of suitable habitat. Brief descriptions of the remaining two species, Monarch Butterfly and Freshwater Shrimp, are provided in the BRA. (Appendix B)

Fish

Seven special-status fish species were identified as having potential to occur within the Project Area based on the database queries and literature review. However, upon further analysis and after the site visit, five species were determined to be absent from the Project Area due to the lack of suitable habitat. Descriptions of the remaining two species, Steelhead and Riffle Sculpin, are included in the BRA. (Appendix B)

Amphibians

Five special-status amphibian species were identified as having potential to occur within the Project Area based on the database queries and literature review. However, upon further analysis and after the site visit, one species was determined to be absent from the Project Area due to the lack of suitable habitat. Brief descriptions of the remaining four species, California giant salamander, California red-legged frog (CRLF), foothill yellow-legged frog (FYLF), and red-bellied newt are provided in the BRA. (Appendix B)

Reptiles

Two special-status reptile species were identified as having potential to occur within the Project Area based on the database queries and literature review. However, upon further analysis and after the site visit, one species was determined to be absent from the Project Area due to the lack of suitable habitat. A brief description of the remaining species, northwestern pond turtle (NWPT) is provided in the BRA.

Birds

Twenty-five special-status bird species were identified as having potential to occur within the Project Area based on the database queries and literature review. However, upon further analysis and after the site visit, twelve species were determined to be absent from the Project Area due to the lack of suitable habitat. Brief descriptions of the remaining thirteen species with potential to occur onsite are included in the BRA.

Mammals

Four special-status mammal species were identified as having potential to occur within the Project Area based on the database queries and literature review. However, upon further analysis and after the site visit, two species were determined to be absent from the Project Area due to the lack of suitable habitat. Brief descriptions of the remaining two species, Pallid bat and Townsend's big-eared bat are provided in the BRA.

4.4.2 Regulatory Setting

4.4.2.1 Federal Regulations

Federal Endangered Species Act

The federal Endangered Species Act (ESA) protects plants and animals that are listed as endangered or threatened by the USFWS or the NMFS. Section 9 of the ESA prohibits the taking of listed wildlife, where take is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (50 Code of Federal Regulations [CFR] 17.3). For plants, the ESA prohibits removing or possessing any listed plant on federal land, maliciously damaging or destroying any listed plant in any area, or removing, cutting, digging up, damaging, or destroying any such species in knowing violation of state law (16 United States Code [USC] 1538). Under Section 7 of the ESA, federal agencies are required to consult with the USFWS if their actions, including permit approvals or funding, could adversely affect a listed (or proposed) species (including plants) or its designated Critical Habitat. Through consultation and the issuance of a Biological Opinion, the USFWS may issue an incidental take statement allowing take of a listed species that is incidental to an otherwise authorized activity provided the activity will not jeopardize the continued existence of the species. Section 10 of the ESA provides for issuance of incidental take permits where no other federal actions are necessary provided a habitat conservation plan is developed.

Critical Habitat

Critical Habitat is defined in Section 3 of the ESA as:

1. the specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the ESA, on which are found those physical or biological features essential to the conservation of the species and that may require special management considerations or protection; and

2. specific areas outside the geographical area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

For inclusion in a critical habitat designation, habitat within the geographical area occupied by the species at the time it was listed must first have features that are essential to the conservation of the endangered or threatened species and that may require special management and protection. Critical habitat designations identify, to the extent known and using the best scientific data available, habitat areas that provide essential life cycle needs of the species (i.e., areas on which the primary constituent elements are found). When USFWS or NMFS proposes and then designates critical habitat for a species in the Federal Register, the agency describes the location and boundaries of the critical habitat and its essential Physical and Biological Features (PBFs). These include, but are not limited to, the following:

- Space for individual and population growth and for normal behavior
- Food, water, air, light, minerals, or other nutritional or physiological requirements

- Cover or shelter
- Sites for breeding, reproduction, or rearing (or development) of offspring
- Habitats that are protected from disturbance or are representative of the historic, geographical, and ecological distributions of a species

Under Section 7(a)(2) of the ESA, federal agencies must ensure that their proposed actions will not destroy or adversely modify designated critical habitat for any listed species. PBFs provide a basis for which the federal agency and USFWS or NMFS may evaluate the potential effects of the proposed action on designated critical habitat.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) implements international treaties between the United States and other nations devised to protect migratory birds, any of their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. The protections of the MBTA extend to disturbances that result in abandonment of a nest with eggs or young. The USFWS may issue permits to qualified applicants as authorized by the MBTA for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found in 50 CFR part 13 General Permit Procedures and 50 CFR part 21 Migratory Bird Permits.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act of 1940 (as amended) provides for the protection of bald eagle and golden eagle by prohibiting the take, possession, sale, purchase, barter, offer to sell, purchase or barter, transport, export or import, of any bald or golden eagle, alive or dead, including any part, nest, or egg, unless allowed by permit (16 USC 668[a]; 50 CFR 22]. The USFWS may authorize take of bald eagles and golden eagles for activities where the take is associated with, but not the purpose of, the activity and cannot practicably be avoided (50 CFR 22.26).

Magnuson-Stevens Act

The 1996 Magnuson-Stevens Fishery Conservation and Management Act, as amended (MSFCMA; 16 USC 1801), requires federal agencies to consult with NMFS whenever a proposed action has a potential to adversely affect EFH. EFH is defined as "…those waters and substrates necessary to fish for spawning, breeding, feeding or growth to maturity" and includes the necessary habitat for managed fish to complete their life cycles and contribute to a sustainable fishery and healthy ecosystem. Regional Fishery Management Councils (FMCs), with assistance from NMFS, are mandated to prepare fisheries management plan and delineate EFH in their respective regions to achieve the MSFCMA's overall marine resource management goal of maintaining sustainable fisheries (NMFS 1998). While states are not required to consult with NMFS, NMFS is required to develop EFH conservation recommendations for any state agency activities with the potential to affect EFH. Although the concept of EFH is similar to the ESA definition of critical habitat, measures recommended by NMFS or a regional fisheries management council

to protect EFH are advisory, rather than prescriptive (NMFS 1998). Federal action agencies that fund, permit, or implement actions that may adversely affect EFH are required to consult with NMFS and respond in writing to NMFS or FMC recommendations arising from the consultation. In addition, NMFS and/or the regional FMC may provide comments and recommendations to any state agency for actions that may affect EFH.

Clean Water Act

The purpose of the Clean Water Act (CWA) is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." Section 404 of the CWA prohibits the discharge of dredged or fill material into Waters of the U.S. without a permit from the USACE. The definition of Waters of the U.S. includes rivers, streams, estuaries, the territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas:

> …that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (33 CFR 328.3 7[b]).

The USEPA also has authority over wetlands and may override a USACE permit.

Substantial impacts to wetlands may require an individual permit. Projects that only minimally affect wetlands may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions; this certification or waiver is issued by the Regional Water Quality Control Board (RWQCB).

4.4.2.2 State or Local Regulations

California Fish and Game Code

California Endangered Species Act

The California ESA (California Fish and Game Code Sections 2050-2116) generally parallels the main provisions of the ESA, but unlike its federal counterpart, the California ESA applies the take prohibitions to species proposed for listing (called *candidates* by the state). Section 2080 of the California Fish and Game Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. *Take* is defined in Section 86 of the California Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Section 2081 allows CDFW to authorize incidental take permits if species-specific minimization and avoidance measures are incorporated to fully mitigate the impacts of the project.

Fully Protected Species

The State of California first began to designate species as *fully protected* prior to the creation of the federal and California ESAs. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction and included fish, amphibians and reptiles, birds, and mammals. Most fully protected species have since been listed as threatened or endangered

under the state and/or federal ESAs. Previously, the regulations that implement the Fully Protected Species Statute (California Fish and Game Code Sections 4700 for mammals, 3511 for birds, 5050 for reptiles and amphibians, and 5515 for fish) provided that fully protected species may not be taken or possessed at any time. However, on July 10, 2023, Senate Bill (SB) 147 was signed into law, authorizing CDFW to issue take permits under the California ESA for fully protected species for qualifying projects through 2033. Qualifying projects include:

- a maintenance, repair, or improvement project to the State Water Project, including existing infrastructure, undertaken by the Department of Water Resources;
- a maintenance, repair, or improvement project to critical regional or local water agency infrastructure;
- a transportation project, including any associated habitat connectivity and wildlife crossing project, undertaken by a state, regional, or local agency, which does not increase highway or street capacity for automobile or truck travel;
- a wind project and any appurtenant infrastructure improvement, and any associated electric transmission project carrying electric power from a facility that is located in the State to a point of junction with any California based balancing authority; or
- a solar photovoltaic project and any appurtenant infrastructure improvement, and any associated electric transmission project carrying electric power from a facility that is located in the State to a point of junction with any California-based balancing authority.

CDFW may also issue licenses or permits for take of these species for necessary scientific research or live capture and relocation, and may allow incidental take for lawful activities carried out under an approved Natural Community Conservation Plan within which such species are covered.

Native Plant Protection Act

The Native Plant Protection Act (NPPA) of 1977 was created with the intent to "preserve, protect and enhance rare and endangered plants in this State." The NPPA is administered by CDFW and provided in California Fish and Game Code Sections 1900-1913. The Fish and Wildlife Commission has the authority to designate native plants as *endangered* or *rare* and to protect endangered and rare plants from take. The California ESA (California Fish and Game Code Sections 2050-2116) provided further protection for rare and endangered plant species, but the NPPA remains part of the California Fish and Game Code.

California Fish and Game Code Special Protections for Birds

Sections 3503, 3513, and 3800 of the California Fish and Game Code specifically protect birds. Section 3503 prohibits the take, possession, or needless destruction of the nest or eggs of any bird. Subsection 3503.5 prohibits the take, possession, or destruction of any birds in the orders Strigiformes (owls) or Falconiformes (hawks and eagles), as well as their nests and eggs. Section 3513 prohibits the take or possession of any migratory nongame bird as designated in the MBTA. Section 3800 states that, with limited exceptions, it is unlawful to take any nongame bird, defined as all birds occurring naturally in California that are not resident game birds, migratory game birds, or fully protected birds. These

provisions, along with the federal MBTA, serve to protect all nongame birds and their nests and eggs, except as otherwise provided in the code.

Lake or Streambed Alteration Agreements

Section 1602 of the California Fish and Game Code requires that a Notification of Lake or Streambed Alteration be submitted to CDFW for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake." The notification must incorporate proposed measures to protect affected fish and wildlife resources. CDFW may suggest additional protective measures during their review. A Lake or Streambed Alteration Agreement (LSAA) is the final proposal mutually agreed upon by CDFW and the applicant. Projects that require an LSAA often also require a permit from the USACE under Section 404 of the CWA. The conditions of the Section 404 permit and the LSAA frequently overlap in these instances.

California Oak Woodlands Conservation Act

The California Oak Woodlands Conservation Act was passed in 2001 to address loss of oak woodland habitats throughout the State. As a result of the Act, the Oak Woodland Conservation Program was established to provide funding for conservation and protection of California oak woodlands. PRC Section 21083.4 went into effect as of January 1, 2005 and requires lead agencies to analyze potential effects to oak woodlands during the CEQA process. The lead agency must implement one of several mitigation alternatives, including conservation of oak woodlands through conservation easements, planting or restoration of oak woodlands, contribution of funds to the Oak Woodlands Conservation Fund, or other appropriate MMs if it is determined that a project may have a significant effect on oak woodlands.

Porter-Cologne Water Quality Act

The RWQCB implements water quality regulations under the CWA and the Porter-Cologne Water Quality Act. These regulations require compliance with the National Pollutant Discharge Elimination System (NPDES), including compliance with the California Storm Water NPDES General Construction Permit for discharges of storm water runoff associated with construction activities. General Construction Permits for projects that disturb 1 or more acres of land require development and implementation of a Stormwater Pollution Prevention Plan (SWPPP). Under the Porter-Cologne Water Quality Act, the RWQCB also regulates actions that would involve "discharging waste, or proposing to discharge waste, within any region that could affect the water of the state" (Water Code 13260(a)). Waters of the State are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (Water Code 13050 [e]). The RWQCB regulates all such activities, as well as dredging, filling, or discharging materials into Waters of the State, which are not regulated by the USACE due to a lack of connectivity with a navigable water body. The RWQCB may require issuance of Waste Discharge Requirements for these activities.

4.4.3 Biological Resources (IV) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐

Less than Significant Impact with Mitigation Incorporated.

4.4.3.1 Special-Status Plants

Project activities will require some degree of tree and vegetation removal. Dewatering of Ritchey Creek will require removal of trees that are located within or near the channel to facilitate the dewatering process. Vegetation removal will occur in order to gain access to Ritchey Creek to complete dewatering, removal of existing culverts, and installation of the natural bottom box culvert. No special-status plant species were detected during rare plant surveys completed in 2022 and 2023. Implementation of MM BIO-1, SPR BIO-1, SPR BIO-2, SPR BIO-3, SPR BIO-5, and SPR BIO-7would ensure impacts to special status plants would remain less than significant.

California Freshwater Shrimp

Marginally suitable habitat for California Freshwater Shrimp is present within the BSA in locations that will be impacted by Project activities. Dewatering, removal of the existing culverts, and installation of the natural bottom box culvert could result in take of this species, if present. Furthermore, increased silt and sediment load downstream could result in take of this species. Implementation of MM BIO-2, SPR BIO-8, SPR BIO-10, and PSR BIO-11 will reduce impacts to the California Freshwater shrimp to less than significant.

Special-Status Fish Species

There are two special status fish species present within the BSA: central California coast distinct population segment steelhead and riffle sculpin. Project activities will require dewatering of a portion of Ritchey Creek to complete installation of a natural bottom box culvert . These activities could potentially directly affect special-status fish species by stranding in the dewatered area or mortality related to removal of the existing culverts and associated material.

In addition to direct effects to steelhead, if not properly implemented and controlled, indirect effects related to proposed construction earthwork (grading, trenching, backfilling, and restoration) could result in erosion and silt-laden runoff entering surface waters of Ritchey Creek. This is considered a potentially significant impact to steelhead critical habitat. Implementation of MM BIO-3, SPR BIO-8, PSR BIO-10, and PSR BIO-11, would reduce impacts to special status fish to less than significant.

Special-Status Amphibians and Reptiles

California giant salamander is present within Ritchey Creek, while CRLF, FYLF, red-bellied newt, and NWPT all have low potential to occur within the BSA. Ground disturbance including grading, mowing, vegetation and tree removal, dewatering, and other Project-related activities have potential to affect special-status amphibians and reptiles though direct mortality or injury. Additional indirect effects due to the presence of construction crews, noise levels, vibrations in ground from heavy equipment and temporary loss of habitat may alter the behavior of amphibians and reptiles. To avoid impacts to special-status amphibians Implementation of MM BIO-4, SPR BIO-8, PSR BIO-10, and PSR BIO-11 would reduce impacts to special status amphibians and reptiles to less than significant.

Nesting Birds (Including Raptors)

Project activities may affect nesting birds, including raptors. Tree and vegetation removal may disturb or destroy nests and alter behavior in such a way as to result in take. Noise from equipment and presence of Project personnel may also cause changes in bird behavior that result in abandonment of nests and subsequent nest failure. The BSA also has low potential to support bald eagle, golden eagle, Swainson's hawk, and northern spotted owl. To ensure the Project avoids impacts to nesting birds SPR BIO-2, SPR BIO-11, SPR BIO-12 and SPR BIO-14 shall be implemented.

Special-Status Bats

Project activities could result in direct effects such as fatalities and roost destruction due to vegetation removal or disturbance. Indirect effects such as roost abandonment and young abandonment, loss of roosting habitat and foraging habitat are also possible. To avoid impacts to special-status bats MM BIO-6, SPR BIO-8, PSR BIO-10, and PSR BIO-11 shall be implemented.

With the implementation of MM BIO-1 through MM BIO-8, SPR GEN-1,, SPR/PSR BIO-2 through SPR/PSR BIO-13 impacts above will be reduced or maintained to less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐

Less than Significant Impact.

There are no sensitive natural communities present within the BSA. The Project will have short term impacts on riparian habitat but will be returned to current or enhanced condition following completion of the Project. With implementation of SPR BIO-1 through SPR BIO-6, and SPR BIO-13 the Project will not have a substantial adverse impact on any sensitive natural communities.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☒	☐	☐

Less than Significant Impact with Mitigation Incorporated.

The Project includes dewatering a portion of Ritchey Creek to replace two cylindrical culverts that prevent fish passage in their current configuration. These culverts will be replaced by a natural bottom box culvert that will restore access to Ritchey Creek for anadromous fish. This will require a portion of Ritchey Creek to be temporarily dewatered and for the bed of the creek to be re-contoured to align with new culvert configuration to ensure fish passage is possible. Project activities will impact waters of the U.S./State but with implementation of MM BIO-6, as well as SPR BIO-1, SPR BIO-7, and SPR BIO-8 Project impacts to the creek will be less than significant.

State Parks has identified the proposed protection measures that utilize the highest level of conservation possible for fish, wildlife, and plant resources in the area, that permanent impacts to special status species or their habitats will not occur as a result of this Project, and that any temporary impacts to habitat will be offset by the net gain to species and aquatic resources resulting from the improvement to the Ritchey Creek corridor.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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 Impact.

As previously stated, the Project sits within a small natural area within the California Essential Habitat Connectivity dataset. Furthermore, the entire range is considered an irreplaceable and essential corridor within the Terrestrial Connectivity – Areas of Conservation Emphasis dataset. This mountain range lies between two major centers of agriculture and tourism, Napa and Sonoma Valleys. Due to this location, it serves as a critical corridor and refuge for wildlife that inhabit the Inner Coast Ranges. The Project impacts will be minimal and short-term in addition to being on the edge of this vital corridor. Following implementation, migratory fish passage will be enhanced in the Ritchey Creek corridor. For these reasons, significant impacts to wildlife movement in the area would not occur. No MMs pertaining to movement corridors are needed.

There are no known nurseries or rookeries in the area and therefore no impacts are expected to these resources.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒

No Impact.

The Project does not conflict with any local policies or ordinances. Therefore, there would be no impact.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

No Impact.

The Project is located within the Mount Hood Range Conservation Area and just south of the Napa River and Tributaries Conservation Plan; however, the Project does not conflict with any conservation plans in the area.

4.4.4 Mitigation Measures/PSR/SPR

BIO-1: **Special-Status Plant Species.** If special-status plants are identified within 50 feet of the Project impact area, implement the following measures:

- If avoidance of special-status plants is feasible, establish and clearly demarcate avoidance zones for special-status plant occurrences prior to construction and maintain until the completion of construction. Avoidance zones shall include the extent of the special-status plants plus a 50-foot buffer, unless otherwise determined by a qualified biologist. No ground- or vegetation-disturbing activities will occur within avoidance zones. A qualified biologist/biological monitor shall be present if work must occur within the avoidance buffer to ensure special-status plants are not impacted by the work.
- If avoidance of special-status plants is not feasible, the following measures shall be incorporated:
  - The Project impact limits shall be clearly demarcated prior to construction and all workers shall be made aware of the impact limits and avoided areas. No work shall occur outside of the Project impact limits. All vehicles and equipment shall be

restricted to the Project impact limits and/or existing designated access roads and staging areas.

- Establish and clearly demarcate avoidance zones for any special-status plant species identified during the preconstruction survey prior to construction and designate as environmentally sensitive areas. Avoidance zones shall include the extent of special-status plants plus a 10-foot buffer and shall be maintained until the completion of construction. A qualified biologist or biological monitor shall be present if work must occur within the avoidance buffer to ensure special-status plants are not impacted by the work.
- Clothing, vehicles, and equipment (including shoes and the undercarriage and tires/tracks) should be cleaned prior to entering the Project Site, and materials used for the Project (such as fill dirt or erosion control materials) should be from certified sources to avoid the introduction and spread of invasive plant species.

BIO-2: **California Freshwater Shrimp.** A qualified biologist with experience conducting surveys for California freshwater shrimp shall survey the Project Area (including any temporary dewatering and/or coffer dam installation) prior to dewatering activities. Surveys shall follow the methods outlined in Serpa 1991 and Fong 1999. If California freshwater shrimp are detected during these surveys, State Parks will contact the Service for direction prior to working within Ritchey Creek. If no shrimp are found during these surveys, no further action will be required.

BIO-3: **Special Status Fish.** To avoid impacts to special-status fish species, the following measures shall be implemented:

- Comply with the dewatering and diversion plan for dewatering activities that includes fish rescue methods for special-status fish species and other special-status species with the potential to be found within Ritchey Creek.
- A qualified biologist shall be present for dewatering activities and will capture and relocate any fish that are found within the dewatered area. The qualified biologists will capture and relocate any fish that are found within the dewatered area.
- To ensure the lowest likelihood of fish impacts, Project activities will occur at the low flow time of year.
- Prior to dewatering, the Project Area will be surveyed for fish by a qualified fisheries biologist who is permitted under the CDFW 4(d) Research Program, holds a CDFW State Scientific Collection Permit, and is familiar with the life history and identification of salmonids, State-listed fish, and listed amphibians within the Project Area. The qualified fisheries biologist shall have a minimum of three years of field experience in the identification and capture of salmonids, including juvenile salmonids.
- The fisheries biologist shall perform all seining, electrofishing, and fish relocation activities in Ritchey Creek according to the measures listed in Section 1.3.7.1c-e of the federal Endangered Species Act Section 7(a)(2) Biological Opinion, and the Magnuson-

Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for the Program for Restoration Projects within the National Oceanic and Atmospheric Administration Restoration Center's Central Coastal California jurisdictional area in California. The fisheries biologist shall initiate fish surveying and necessary relocations several days prior to the start of construction of the cofferdam. The fisheries biologist will be available during construction activities to perform subsequent relocations if necessary; all subsequent captures and relocations will follow the measures in Section 1.3.7.1b-e of the Programmatic Approach. Any captured fish will be placed back into Ritchey Creek downstream of the Project disturbance area with strict adherence to the guidelines defined in Section 1.3.7.1b of the Programmatic Approach.

- Prior to construction initiation, a biologist with understanding of the listed fish in the Project Area, as approved by the fisheries biologist and State Parks, shall conduct a training session for all construction and park personnel that will be involved in the construction of the Project. At a minimum, the training shall include a description of rainbow trout/steelhead and its habitat, the importance of the species and habitat, the general measures being implemented to conserve the species as they relate to the Project, and the physical boundaries within which the Project may be accomplished. The training session will include instruction in the appropriate protocol to follow in the event that one of the listed species is observed onsite. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions. Handouts with species photos will be provided to construction personnel.
- The Project shall be in compliance with Fish and Game Code section 5901 and shall not install or maintain any device or contrivance that prevents, impedes, or tends to prevent or impede the passing of fish up and down stream.

BIO-4: **Special-Status Amphibians and Reptiles.** To avoid impacts to special-status amphibians and reptiles, the following measures shall be implemented:

- A qualified biologist shall perform a pre-construction survey within 24 hours prior to the initiation of construction to confirm whether the site is clear of California giant salamander, California red-legged frog (CRLF), foothill yellow-legged frog (FYLF), red-bellied newt, and northwestern pond turtle (NWPT). Should California giant salamander, FYLF, red-bellied newt, or NWPT be detected during the survey, a qualified biologist with a scientific collecting permit shall relocate individuals to suitable nearby habitat that won't be disturbed by Project construction.
- A qualified biologist will be onsite during dewatering activities, initial ground-disturbance, and culvert removal to monitor special-status amphibians and reptiles. If any special-status amphibians or reptiles are discovered during these activities, the qualified biologist shall request all work to cease and will relocate all species, except for CRLF and NWPT, to the nearest appropriate habitat outside of the Project Area. If CRLF or NWPT are discovered during these activities, all work shall cease and Section 7 consultation shall be initiated.

- Construction activities will occur during the non-breeding season for CRLFs (June–October).
- A USFWS approved biologist(s) shall conduct training session(s) for all construction and park personnel that will be involved in the construction of the Proposed Project. The training will include al sensitive species onsite, as well as their habitats, the importance of the species and habitats, the general measures being implemented to conserve the species as they relate to the Project, and the physical boundaries within which the Project may be accomplished. The training session will include instruction in the appropriate protocol to follow in the event that a federally listed species is observed onsite. Informational handouts with species photos will be provided to. construction personnel.
- Prior to being brought onsite, all vehicles and machinery will be inspected for fluid leaks by the contractor. No vehicles or machinery exhibiting signs of leaking fluid will be brought onsite. All fueling and maintenance of vehicles and other equipment and staging areas will occur away from any riparian habitat or water body.
- Dewatering activities shall be completed under the supervision of an agency approved qualified biologist. during dewatering structure installation, a fine mesh screen (no larger than 3 millimeters) will be placed over the intake to the pump that will be used in the cofferdam area to ensure that no listed frogs or other species are taken at the pump.
- At the time of dewatering, water shall be released or pumped downstream at an appropriate rate to avoid adversely affecting downstream flows. Upon the completion of construction activities, any barriers to flow shall be removed in a manner that would allow flow to resume with the least disturbance to the substrate.
- An agency approved biologist(s) will monitor onsite compliance with all minimization measures during the work hours each day and during all construction activities. The monitor shall have the authority to halt any action that might result in affects to any State or federally listed species.
- All vegetation removal shall be completed under the supervision of an agency approved biologist(s). Stumps, rocks, logs, or other habitat features moved during the Proposed Project construction will be done so very carefully, under the observance of the approved biologist(s), and will be replaced in adjacent suitable habitat or stored for re-use in the revegetation phase.
- The number of access routes, number and size of staging areas, and the total area that will be affected by the Project activities shall be limited to the minimum necessary to achieve the Proposed Project goal. The contractor shall keep all Project activity and equipment within designated staging and work areas.
- To avoid attracting predators of federally listed species, all food-related trash will be kept in closed containers and removed from the site at the end of each day. Care will be taken to minimize trash or food waste in the work area as well. All construction material,

wastes, debris, sediment, rubbish, vegetation debris, trash, fencing, etc. will be removed from the site upon Project completion.

- All construction-related holes, which are capable of entrapping wildlife, will be covered at the end of each workday by the biological monitor in a manner that will prevent entrapment.
- Exclusionary materials will be selected that do not include plastic monofilament mesh or other features that might lead to entrapment, injury, or death of federally listed species.
- The agency approved qualified biologist will conduct a post-construction survey immediately prior to the cofferdam removal to ensure that federally listed species have not occupied the temporary pool created upstream of the site. If any listed species are present, removal of the dam materials will be delayed until the species moves on its own accord out of the Project Area.
- The appropriate agencies will be immediately notified via telephone or electronic mail if any listed species are found within the Proposed Project action area.
- The agency approved qualified biologist will submit a summary of survey activities upon completion to the USFWS.

BIO-5: Special-Status Bats.

- If tree or vegetation removal will occur, bat roost surveys shall be conducted by a qualified wildlife biologist within 14 days prior to any Project initiation. Locations of vegetation and tree removal or excavation will be examined for potential bat roosts. Specific survey methodologies will be determined in coordination with CDFW, and may include visual surveys of bats (e.g., observation of bats during foraging period), inspection for suitable habitat, bat sign (e.g., guano), or the use of ultrasonic detectors (e.g., SonoBat, Anabat).
- Contractor shall minimize disturbance of any roost sites found.
- If it is determined that an active roost site cannot be avoided, CDFW will be notified and consulted on appropriate bat exclusion methods and roost removal procedures. Once it is confirmed that all bats have left the roost, no further measures pertaining to bats will be necessary.
- If no active bat roosts are found during the pre-construction survey, no further measures relating to special-status bats will be necessary.

BIO-6: Biological Monitoring.

- State Parks and the agency approved biologist(s) shall designate a person(s) to be a full-time biological monitor(s) to monitor onsite compliance with all minimization measures during project construction. The USFWS permitted biologist shall ensure that the biological monitor receives training in the identification of all sensitive species within the Project Area. See Appendix B for further details.

The following SPRs and PSRs have been included into the Project to further ensure that impacts remain at a less than significant level:

SPR BIO-1: **Work Area Boundaries.** Prior to the start of onsite construction activities, the Project construction manager will determine the minimum area required to complete the work and define the boundaries of the work area on the Project drawings and with flagging or fencing on the ground, as appropriate.

SPR BIO-2: **Special Status Plants.** At the discretion of the State Park Project Manager, Project activities will be monitored to ensure that impacts to special status species and habitats are minimized.

PSR BIO-3: **Signage.** Prior to closures dates, the State Parks Project Manager will post information signs near Project areas with restricted access or closures lasting longer than 3 months. The signs will include the following information: – Explanation for and description of the Project; and – Anticipated completion date.

PSR BIO-4: **Summary Report.** A State Parks qualified biologist will submit a summary report of all collecting activities conducted at BNVSP to the Bay District Environmental Scientist upon completion of the Project.

PSR BIO-5: **Plant Stock.** To maintain genetic integrity, only plant stock collected within the BNVSP will be used for re-vegetation in the Project Area.

SPR BIO-6: **Runoff Prevention.** Project personnel will employ BMPs for erosion control to avoid runoff of Project-related sediments, vehicle fluids, and other liquids into special plant communities.

PSR BIO-7: **Vegetation Removal.** All vegetation removal shall be done under the supervision of State Park/other regulatory agency approved biologist.

PSR BIO-8: **Pump Intake Inspection.** Pump intake shall be checked periodically, 7 days a week during construction activities for impingement of fish or amphibians by a State Park/other agency approved biologist or trained personnel.

PSR BIO-9: **Coffer Dam Inspection.** A post-construction survey will be conducted by an agency approved biologist just before the cofferdam is removed to make sure no frogs have occupied the temporary pool created upstream of the site. If any are present, removal of the dam materials will be delayed until the species moves on its own accord out of the Project Area. In the event that a frog does not move out of the Project Area, the USFWS/CDFW will be contacted for further guidance.

SPR BIO-10: **Entrapment.** All construction-related holes, capable of entrapping wildlife, will be covered at the end of each workday by the State Park/other agency approved biological monitor or trained personnel in a manner that will prevent entrapment.

SPR BIO-11: **Exclusionary Materials.** Exclusionary materials will be selected that do not include plastic monofilament mesh or other features that might lead to entrapment, injury, or death of

listed species. The State Park/other agency approved biological monitor or trained personnel will inspect fencing daily for entrapment.

SPR BIO-12: Root Zone Trenching. Any trenching in a "structural root zone" will be restricted by need to retain riparian trees for bank stability and cultural resource protections.

SPR BIO-13: Nesting Bird. The following shall be conducted prior to initiation of project construction:

- Surveys for active raptor nests would be conducted within a 500-foot radius of project areas.
- The surveys would be conducted within 7 days prior to the beginning of construction at each work site. If nesting raptors are found, no construction would occur within a 500-foot radius of the nest tree between March 1 and August 31, or until the young have fledged and the young would no longer be impacted by project activities (as determined by a DPR-approved biologist).
- Surveys for active migratory bird nests would be conducted within a 100-foot radius of the project area 7 days prior to commencement of construction at each work site. If active nests are located, all construction disturbance activities within a 100-foot radius of the nest tree would be postponed until the end of the breeding season (August 31) or until the young have fledged and the young are no longer impacted by project activities (as determined by a DPR-approved biologist).

4.5 Cultural Resources

This section of this Draft IS/MND describes the existing conditions in the Project Area, the regulatory framework necessary to evaluate potential impacts on cultural resources from the Project, and the potential Project-specific and cumulative impacts that could result from the Project.

Cultural resources include pre-contact (prehistoric) archaeological sites, historic archaeological sites, and historic structures, and generally consist of artifacts, food waste, structures, and facilities made by people in the past. Pre-contact archaeological sites are places that contain the material remains of activities carried out by the native population of the area (Native Americans) prior to the arrival of Europeans in California. The term pre-contact is increasingly being used in lieu of the term prehistoric. Artifacts found in pre-contact sites include flaked stone tools such as projectile points, knives, scrapers, drills, and the resulting waste flakes from tool production; ground stone tools such as pestles for grinding seeds and nuts; bone tools such as awls, ceramic vessels, or fragments; and shell or stone beads. Pre-contact features include hearths or rock rings, bedrock mortars and milling slicks, rock shelters, rock art, and burials. Resources defined by California Native American tribes as TCRs are addressed separately in Section 4.18 of this Draft IS/MND.

Places that contain the material remains of activities carried out by people after the arrival of Europeans are considered historic-period archaeological sites. Historic archaeological material usually consists of domestic refuse, which includes bottles, cans, ceramics, and food waste that was disposed of either as roadside dumps or near structure foundations. Archaeological investigations of historic-period sites are usually supplemented by historical research using written records.

Historic structures include houses, garages, barns, commercial structures, industrial facilities, community buildings, and other structures and facilities that are more than 50 years old. Historic structures may also have associated archaeological deposits, such as abandoned wells, cellars, privies, refuse deposits, and the foundations of former outbuildings.

The information provided below is an abridged version of the Archaeological Presence/Absence Testing for the Bothe-Napa Valley Day Use Bridge Replacement, Bothe-Napa Valley State Park (Wohlgemuth and Kuypers 2023) and is included here to provide a brief context of the potential cultural resources in the Project Area. Due to the sensitive nature of cultural resources and their records and documentation, which are restricted from public distribution by State and federal law, this Draft IS/MND's appendices do not include the cultural resources report; however, all pertinent information that is necessary for impact determinations is included in this section. A redacted version of the cultural resources report that does not include site records or locations may be obtained by contacting the State Parks Bay Area District.

4.5.1 Environmental Setting

The Napa Valley is a narrow fault basin, one of many, in the Coast Ranges trending northwest to southeast. The "Upper" Napa Valley refers to the area north of the Yountville Hills to about three miles north of Calistoga. Upper Napa Valley is very narrow, less than one mile wide at the Project Area. The Project Area provided [Native Americans with] quick access to a wide range of habitats: it is possible to harvest hazelnuts on the shaded slopes of the hills at Bothe-Napa Valley State Park, then walk less than 10 minutes north to collect gray pine nuts and manzanita berries from the dry hills away from the slopes and canyon bottom.

Volcanic activity in the region produced an abundance of obsidian, found in primary deposits on the eastern slopes of the valley, but dispersed in secondary alluvial deposits throughout the basin. Napa Valley obsidian was the premier toolstone in the North Coast Ranges, and because of its purity and lack of flaws, it was a highly valued material traded throughout central California during the entire Holocene.

Native plant and animal diversity was high in the valley and surrounding mountains, ample food for Native American hunter-gatherers. The bottomlands were dominated by mixed-hardwood woodlands. Today, the dry slopes east of the valley floor are mainly covered in gray pine-blue oak woodland and chaparral-scrub communities, while the more shaded slopes west of the valley floor support denser tree cover composed of a mixed hardwood community. Key native plant foods from these local habitats included acorns from a variety of oaks; nuts from pine, bay, and buckeye; manzanita and other berries; bulbs and corms, and several small-seeded grasses and annuals. Terrestrial animals hunted by native peoples included elk, deer, rabbits, and squirrels, along with birds such as ducks, geese, quail, and doves. Prehistorically, the Napa River and larger tributaries were home to Sacramento splittail, California steelhead, Delta smelt, and several other native fish species.

Ethnolinguistic data place the Project Area within the territory of the Wappo, who at the time of Euro-American contact populated lands within the Napa Valley as well as adjacent areas in the Russian River and Putah Creek drainages. At the time of contact, they occupied lands from the modern city of Napa north to the foot of Cobb Mountain, with a small enclave situated on the southern end of Clear Lake. Ethnographic works on the Wappo offer an array of often conflicting information on Native American

tribelet locations, language boundaries, and lifeways. Some of what is reported comes from biased and poorly documented historical records and a handful of Native American informants somewhat removed from their original way of life. There is also the common practice of applying cultural traits (e.g., socio-political structure) from one linguistic group to other nearby groups, based solely on proximity.

In the 1830s, the Mexican government allowed land grants to white settlers on the condition that they become Mexican citizens. Enticed by the free and fertile soil, Captain George C. Yount was the first white settler to the region in 1831. Five years later, the Mexican government granted Yount the *Rancho Caymus* in the central Napa Valley. This land grant encompassed about 11,800 acres, including the present Project Area. Though not an enthusiastic farmer, Yount did cultivate some crops on his ranch, including grapes. Edward Turner Bale was another early land-grant recipient, settling on the *Rancho Carne Humana* in the upper Napa Valley near present-day St. Helena in 1841. Most rancho owners ran cattle or leased their holdings to other cattle ranchers, and livestock and some truck crops were the principal exports of the valley during the late Mexican and early American Periods.

California became a state in 1850, just after the Mexican War and the beginning of the Gold Rush, and the number of settlers increased in the Napa Valley. The region experienced rapid growth in the next few decades as towns like St. Helena and Yountville were established, along with local wagon roads. The roadway alignment now known as State Route 29 began as one of these early roads (although it did not come into the new California State Highway system until the late 1920s). Winemaking in the valley increased exponentially in succeeding years, and by the mid-1860s there were more than 1,000 acres of grapes and 750,000 vines. Expansion continued into the 1870s and Napa Valley viticulture suffered several decades of decline following the early boom years. In the late 1870s and continuing into the 1890s, the valley suffered from an invasion of phylloxera, a parasite that kills grape vines. Adding to this problem were the economic depressions of 1873 and 1893, and an overproduction of wine. It was not until after World War II that the valley began to recover and regain its prominence as a wine-producing region (Verardo and Verardo 1986:51, 58). Throughout its history, winemaking has been the dominant activity in the Napa Valley, but the area has long been a leader in production of fruit and nut crops as well.

The Project is located in one of the most historic areas of Napa County. Upper Napa Valley was sparsely populated during the Spanish and Mexican Periods, but substantial agricultural-based settlements began in the mid-nineteenth century. Following the California Gold Rush, a wagon road was established along the route today used as SR29. By the turn of the early twentieth century, agricultural settlements lined the eastern side of this road, with sparser development along the road's western margin.

4.5.2 Regulatory Setting

4.5.2.1 Federal

National Historic Preservation Act

The National Historic Preservation Act (NHPA) requires that the federal government list significant historic resources on the National Register of Historic Places (NRHP), which is the nation's master inventory of known historic resources. The NRHP is administered by the National Park Service (NPS) and includes

listings of buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, state, or local level.

Structures, sites, buildings, districts, and objects that are more than 50 years of age can be listed in the NRHP as significant historic resources. However, properties under 50 years of age that are of exceptional importance or are contributors to a historic district can also be included in the NRHP. The criteria for listing in the NRHP include resources that:

a) are associated with events that have made a significant contribution to the broad patterns of history;

b) are associated with the lives of persons significant in our past;

c) embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

d) have yielded or may likely yield information important in prehistory or history.

4.5.2.2 State

California Register of Historical Resources

The State Historical Resources Commission designed the California Register of Historical Resources (CRHR) for use by State and local agencies, private groups, and citizens to identify, evaluate, register, and protect California's historical resources. The CRHR is the authoritative guide to the State's significant historical and archaeological resources. This program encourages public recognition and protection of resources of architectural, historical, archaeological, and cultural significance, identifies historical resources for State and local planning purposes, determines eligibility for State historic preservation grant funding, and affords certain protections under CEQA.

California Environmental Quality Act

Under CEQA, public agencies must consider the effects of their actions on both historical resources and unique archaeological resources. Pursuant to PRC § 21084.1, a "project 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." Section 21083.2 requires agencies to determine whether proposed projects would have effects on unique archaeological resources.

Historical resource is a term with a defined statutory meaning (PRC § 21084.1). Under CEQA Guidelines Section 15064.5(a), historical resources include the following:

- A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the CRHR (PRC § 5024.1).
- A resource included in a local register of historical resources, as defined in PRC § 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of

PRC § 5024.1(g), will 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.

- Any object, building, structure, site, area, place, record, or manuscript that 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 a Historical Resource, provided that the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource will be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing in the CRHR (PRC Section 5024.1), which require that the resource:

  a) is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

  b) is associated with the lives of persons important in our past;

  c) 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

  d) has yielded, or may be likely to yield, information important in prehistory or history.

The fact that a resource is not listed in, or determined to be eligible for listing in the CRHR, included in a local register of historical resources (pursuant to PRC § 5020.1[k]), or identified in a historical resources survey (meeting the criteria in PRC § 5024.1[g]) does not preclude a lead agency from determining that the resource may be a historical resource as defined in PRC §§ 5020.1(j) or 5024.1.

Historical Resources are usually 45 years old or older and must meet at least one of the criteria for listing in the CRHR that are described above (such as association with historical events, important people, or architectural significance), in addition to maintaining a sufficient level of physical integrity.

Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or that have been identified in a local historical resources inventory may be eligible for listing in the CRHR and are presumed to be historical resources for purposes of CEQA unless a preponderance of evidence indicates otherwise (PRC § 5024.1 and 14 CCR § 4850).

CEQA also requires lead agencies to determine if a proposed project would have a significant effect on unique archaeological resources. If a lead agency determines that an archaeological site is a historical resource, the provisions of PRC Section 21084.1 and CEQA Guidelines Section 15064.5 would apply. If an archaeological site does not meet the CEQA Guidelines criteria for a historical resource, the site may meet the threshold of PRC Section 21083.2 regarding unique archaeological resources:

> Unique archaeological resource means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:
>
> - Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.

- Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

The CEQA Guidelines note that if a resource is neither a unique archaeological resource nor a historical resource, the effects of the project on that resource shall not be considered a significant effect on the environment (14 CCR Section 15064[c][4]).

4.5.3 Thresholds of Significance

Based on the CEQA Guidelines, Appendix G: Items V (a) through (c), implementation of the Project would have a significant impact related to cultural resources if it would:

a) cause a substantial adverse change in the significance of a Historical Resource pursuant to CEQA Guidelines section 15064.5;

b) cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines section 15064.5; or

c) disturb any human remains, including those interred outsides of dedicated cemeteries.

CEQA Guidelines Section 15064.5(b)(2) defines *materially impaired* for purposes of the definition of substantial adverse change as follows:

The significance of a historical resource is materially impaired when a project:

A. 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

B. 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

C. 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.

CEQA requires public agencies to consider the effects of their actions on both Historical Resources and unique archaeological resources. If a project would result in an effect that may cause a substantial adverse change in the significance of a historical resource or would cause significant effects on a unique archaeological resource, alternative plans or MMs must be considered. Therefore, prior to assessing

effects or developing MMs, the significance of cultural resources must first be determined. The steps that are normally taken in a cultural resources investigation for CEQA compliance are as follows:

- identify potential historical resources and unique archaeological resources;
- evaluate the eligibility of historical resources; and
- evaluate the effects of the project on eligible historical resources.

4.5.4 Methods of Analysis

4.5.4.1 Records Search Results

ECORP requested a records search on December 11, 2023, and the Northwest Information Center returned the results on January 2, 2024. The purpose of the records search was to determine the extent of previous surveys within and near the Project Area, and whether previously documented pre-contact or historic archaeological sites, architectural resources, or traditional cultural properties exist within this area. ECORP obtained site records and reports for all resources within the Project Area and within 0.5 mile of the Project Area in Napa County.

A portion of resource P-28-62/CA-NAP-58/H is located within the Project Area. The resource consists of a pre-contact habitation resource overlain by historic structures.

4.5.4.2 Presence/Absence Testing

Far Western Anthropological Research Group completed an excavation testing for the presence/absence of cultural materials within cultural resource P-28-62/CA-NAP-58/H for the Proposed Project (Wohlgemuth and Kuypers 2023). The testing was conducted to determine if cultural resources were present in or adjacent to the Project Area and assess the sensitivity of the Project Area for undiscovered or buried cultural resources.

Wohlgemuth and Kuypers (2023) completed presence/absence testing within the boundaries of resource P-28-62/CA-NAP-58/H, which overlap the Project Area. Four backhoe trenches (Trenches) and two 1-by-0.5-meter Shovel Test Units (STUs) for a total of 11.4 cubic meters of excavated soil. Materials from the excavations were collected, processed, catalogued, and analyzed. Recovered materials from the STUs included flaked lithic tools and obsidian debitage. Wohlgemuth and Kuypers (2023) also completed obsidian source and hydration analysis, archaeobotanical analysis, and radiocarbon analysis.

Trenches 2 and 4 did not contain any midden or artifacts, Trenches 1 and 3 contained disturbed midden, and all Trenches were heavily disturbed from prior bridge construction. The results of obsidian hydration and radiocarbon analysis indicated that Trenches 1 and 3 have mixed stratigraphy. Obsidian debitage recovered from the mixed stratigraphy in Trench 3 may date to the Late Period (approximately 500 years before present [BP]). Abundant archaeological materials and intact midden were identified in STUs 1 and 2. Intact stratigraphy was present at STUs 1 and 2, and the resulting analysis determined that the deposits dated to the Middle/Late Transition (approximately 930 to 680 calibrated BP). The boundary of P-28-62/CA-NAP-58/H includes the locations of STUs 1 and 2, which contributes to its NRHP eligibility.

Wohlgemuth and Kuypers (2023) determined that the boundary of the resource does not extend to the locations of the trenches. Heavily disturbed deposits exist within the location of the proposed bridge replacement and fish weir removal. Pre-contact resource P-28-62/CA-NAP-58/H was determined eligible under Criterion D for the NRHP in June 2020, therefore, the resource meets the criteria to be considered a Historical Resource under CEQA and a Historic Property under NHPA Section 106.

4.5.5 Cultural Resources (V) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☒	☐	☐

Less than Significant Impact with Mitigation Incorporated.

The Project Area is located within the boundary of known pre-contact Historical Resource P-28-62/CA-NAP-58/H; however, the portions of the resource that will be impacted have been determined to be non-contributing to its NRHP eligibility. The ground disturbance required to remove the existing crossing and install a structurally sound crossing has the potential for ground disturbing activities to impact previously unknown cultural resources. Therefore, implementation of MM CUL-1, CUL-3, and SPR CUL-1 have been included to reduce the potential impact to Historical Resources to less than significant with mitigation incorporated.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐

Less than Significant Impact with Mitigation Incorporated.

The Project Area was investigated by a professional archaeologist. The Project Area is located within the boundaries of pre-contact resource P-28-62/CA-NAP-58/H. Excavations completed by Wohlgemuth and Kuypers (2023) identified archaeological remains within the boundaries of the Project Area, but determined that the remains were disturbed and, therefore, did not contribute to the NRHP eligibility of the resource.

There is always the potential that ground-disturbing activities associated with the Project will expose previously unknown archaeological resources. Therefore, implementation of MM CUL-1 through CUL-3 and SPR CUL-1 have been included to reduce potential impacts to archaeological resources to less than significant with mitigation incorporated.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

Less than Significant Impact with Mitigation Incorporated.

No human remains have been identified within the Project Area; however, there is always the potential that ground-disturbing Project activity could result in the inadvertent disturbance of currently undiscovered burial sites or human remains. Therefore, implementation of SPR CUL-1 has been included to reduce potential impacts to less than significant with mitigation incorporated.

4.5.6 Mitigation Measures/PSR/SPR

CUL-1: **Cultural Monitoring Plan.** A comprehensive Cultural Monitoring Plan will be implemented for the Project that will include both construction and long-term post-construction monitoring. Monitoring will be conducted by a qualified archaeologist and a Native American representative who is affiliated with the area.

Construction monitoring will be implemented at the discretion of the California State Parks archaeologist and will focus on those locations where trail construction is adjacent to archaeological sites. With assistance from a tribal representative, the State Parks archaeologist will monitor other construction activities as deemed necessary.

CUL-2: **Use of Rubber Mats.** Rubber mats will be laid on the soil along the path that will be used by construction vehicles and heavy equipment. The mats will be laid prior to any ground disturbing work.

CUL-3: **Cultural Awareness Training.** All workers, regardless of location, shall receive worker awareness cultural resources sensitivity training prior to construction. The training program should be developed by an archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards for archaeology and include relevant information regarding sensitive cultural resources and TCRs, as well as the applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The training program should also describe appropriate avoidance and impact minimization measures for cultural resources and TCRs that may be located at Project locations and provide guidance on the procedures to follow if any cultural resources or tribal resources are encountered.

The following SPRs and PSRs have been included into the Project to further ensure that impacts remain at a less than significant level:

SPR CUL-1: **Unanticipated Discovery.** If anyone discovers previously undocumented cultural resources during Project construction, work within 100 feet of the find will be temporarily halted until a State Parks Qualified cultural resources specialist designs and implements appropriate

treatments in accordance with the Secretary of the Interiors Standards and Guidelines for archaeological resources protection. State Parks will modify the Project to ensure that construction activities will avoid cultural resources upon review and approval of a State Parks Archaeologist.

If ground disturbing activities uncover intact cultural features (including but not limited to dark soil containing shellfish, bone, flaked stone, groundstone, or deposits of historic ash) or human remains, when a State Parks Qualified cultural resources specialist is not onsite Project manager/site supervisor will contact the State Parks State Representative immediately and Project manager/site supervisor will temporarily halt or divert work within the immediate vicinity of the find until a State Parks-qualified cultural resource specialist evaluates the find and determines the appropriate treatment and disposition.

The archaeologist shall notify the Monterey County Coroner (as per § 7050.5 of the Health and Safety Code). The provisions of Section 7050.5 of the California Health and Safety Code, § 5097.98 of the California PRC, and Assembly Bill 2641 will be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, the Coroner will notify the NAHC, which then will designate a Native American Most Likely Descendant (MLD) for the Project (§ 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. Work cannot resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

4.6 Energy

The consumption of energy resources results in direct and indirect environmental impacts through the depletion of nonrenewable resources (e.g., oil, natural gas, coal) and emissions of pollutants during energy production. As the Project is proposing improvements at an existing Park, the impact analysis focuses on the sole source of energy that is relevant to the Proposed Project, the equipment-fuel necessary for Project construction.

4.6.1 Energy Types and Sources

California relies on a regional power system comprised of a diverse mix of natural gas, renewable, hydroelectric, and nuclear generation resources. Natural gas provides California with a majority of its electricity, closely followed by renewables, large hydroelectric and nuclear (California Energy Commission [CEC] 2023). Pacific Gas and Electric Company (PG&E) provides electricity and natural gas to Napa County. The company has various sources of clean power to offer its customers, stating that in 2022, approximately 95 percent of the customer's electricity comes from GHG-free resources, including renewables, nuclear, and hydroelectric power (PG&E 2023). Furthermore, PG&E delivered approximately 40 percent of the electricity that they provided was from renewable resources that qualified under the California Renewables Portfolio Standards (RPS), and the company remains on track for the new RPS mandate from SB 100, which mandates 60 RPS by 2030. PG&E also offers a program to customers to

purchase up to 100 percent of their electricity from either solar or regional renewable energy sources. The company currently provides 5.5 million customers with electricity and natural gas throughout the state of California.

The California Public Utilities Commission (CPUC) regulates PG&E. The CPUC has developed energy efficiency programs such as smart meters, low-income programs, distribution generation programs, self-generation incentive programs, and a California solar initiative. Additionally, the CEC maintains a power plant database that describes all of the operating power plants in the state by county.

Fuel use in internal-combustion engine vehicles is typically measured in gallons (e.g., of gasoline or diesel fuel) and energy use in electric vehicles is measured in kWh.

Automotive fuel consumption in Napa County from 2019 to 2023 is shown in Table 4.6-1. As shown, Fuel consumption has decreased since 2019.

Table 4.6-1. Automotive Fuel Consumption in Napa County 2019-2023

Year	Total Fuel Consumption
2023	61,462,182
2022	62,426,325
2021	63,138,615
2020	57,159,103
2019	63,686,270

Source: California Air Resources Board 2024

4.6.2 Energy (VI) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) 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.

This impact analysis focuses on the source of energy that is relevant to the Proposed Project: the equipment fuel necessary for Project construction. Addressing energy impacts requires an agency to determine what constitutes a significant impact. There are no established thresholds of significance, statewide or locally, for what constitutes a wasteful, inefficient, and unnecessary consumption of fuel for a proposed land use project. For the purposes of this analysis, the amount of fuel necessary for Project construction is calculated and compared to all fuel consumed in Napa County. The amount of total construction-related fuel use was estimated using ratios provided in the Climate Registry's General

Reporting Protocol for the Voluntary Reporting Program, Version 2.1 (Appendix F). Fuel consumption associated with Proposed Project construction is summarized in Table 4.6-2.

Table 4.6-2. Proposed Project Fuel Consumption – Automotive Fuel Consumption

Energy Type	Annual Energy Consumption	Percentage Increase Countywide
Automotive Fuel Consumption		
Project Construction Calendar Year One	16,059 gallons	0.026 percent

Notes: The Bothe-Napa Valley State Park Day Use Road/Bothe State Park Road-Ritchey Creek Fish Passage Barrier Removal Project increase in construction fuel consumption is compared with the countywide fuel consumption in 2023, the most recent full year of data.

Source: Climate Registry 2016. See Appendix F.

Fuel necessary for Project construction would be required for the operation and maintenance of construction equipment and the transportation of materials to the Project Area. The fuel expenditure necessary to construct the physical buildings and infrastructure would be temporary, lasting only as long as Project construction. As indicated in Table 4.6-2, the Project's gasoline fuel consumption during the one-time construction period is estimated to be 16,059 gallons which would increase the annual fuel use in the County by 0.026 percent. As such, Project construction would have a nominal effect on local and regional energy supplies. No unusual Project characteristics would necessitate the use of construction equipment that would be less energy efficient than at comparable construction sites in the region or the state. Construction contractors would purchase their own gasoline and diesel fuel from local suppliers and would judiciously use fuel supplies to minimize costs due to waste and subsequently maximize profits. Additionally, construction equipment fleet turnover and increasingly stringent state and federal regulations on engine efficiency combined with state regulations limiting engine idling times and requiring recycling of construction debris, would further reduce the amount of transportation fuel demand during Project construction. For these reasons, it is expected that construction fuel consumption associated with the Project would not be any more inefficient, wasteful, or unnecessary than other similar development projects of this nature. This impact would be less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Less than Significant Impact.

The Project would not conflict with or obstruct state or local plans for renewable energy or energy efficiency as the Project does not involve activities or infrastructure that directly consumes energy once construction is complete. Although the Proposed Project would not include the construction of any buildings, the Project would adhere to all relevant standards of the Energy Efficiency Standards for Residential and Nonresidential Buildings, as specified in Title 24, Part 6 of the CCR, which indirectly

influences construction practices that improve energy consumption and efficiency. Thus, a less than significant impact would occur.

4.6.3 Mitigation Measures/PSR/SPR

No significant impacts were identified and no MMs are required. No SPRs or PSRs were identified for the Project.

4.7 Geology and Soils

4.7.1 Environmental Setting

4.7.1.1 Topography

Napa County is located in the Coast Ranges Geomorphic Province. This province is bounded on the west by the Pacific Ocean and on the east by the Great Valley geomorphic province. The County's highest topographic feature is Mount St. Helena, which is located in the northwest corner of the County and whose peak elevation reaches 4,343 feet. Principal ridgelines have maximum elevations that roughly vary between 1,800 and 2,500 feet to sea level. These elevations decrease in the southern part of the County. This physiography has influenced the local climate (creating several microclimates), the development of soils, and the existence and location of geologic features, including hazards such as landsliding. The combination of physiography, soils, and climate has helped give rise to the production of premium wine grapes and other agricultural products for which the County is famous (Napa County 2007).

4.7.1.2 Geology

Unconsolidated surficial deposits generally consist of unstratified, geologically very young materials (clay, silt, sand, rock fragments and gravel, and organic material) lying on bedrock (or older deposits or other sedimentary materials) at or near the Earth's surface.

They are of Quaternary age (the last 2 million years). Relative to the underlying rock, they are most often weak, soft, loose, and generally susceptible to erosion. They are the product of weathering, erosion, and deposition. These deposits are of variable thickness and comprise valley alluvium, alluvial fans, levee deposits, estuarine deposits, colluvium, stream channel and terrace deposits, and various types of landslide deposits, and the soil horizons that have developed upon them. Within the County the larger and thicker of these deposits are principally found within the major valleys—Napa, Chiles and Pope.

4.7.1.3 Regional Seismicity and Fault Zones

An "active fault," according to the DOC, Division of Mines and Geology, is a fault that has indicated surface displacement within the last 11,000 years. A fault that has not shown geologic evidence of surface displacement in the last 11,000 years is considered "inactive." The interactive Fault Activity Map of California (DOC 2023a) shows BNVSP having no faults running through the Proposed Project boundaries. There is one quaternary fault south west of BNVSP. The San Andreas Fault lies approximately 30 miles to the southwest of the Proposed Project Area.

4.7.1.4 Soils

According to the *Web Soil Survey* (NRCS 2023), two soil units, or types, have been mapped within the Study Area. Bale clay loam, 2 to 5 percent slopes, is a somewhat poorly drained soil type with a parent material of alluvium derived from rhyolite and/or alluvium derived from igneous rock. Forward silt loam, 12 to 57 percent slopes. Major Land Resource Area 15 is a well-drained soil type with a parent material of rhyolitic residuum weathered from volcanic rock.

No soil units derived from serpentinite or other ultramafic parent materials have been reported to occur within the Proposed Project or its immediate vicinity.

4.7.2 Geology and Soils (VII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☐	☒
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒

Less than Significant Impact.

i and ii) The Proposed Project Area is not located within the Alquist-Priolo Earthquake Fault Zone as designated by the California Geographic Survey. Two regional quaternary faults are located within the vicinity, but outside of the BNVSP footprint. The potential for primary surface ground rupture within the site is remote due to the absence of known active faults crossing the site. The potential for damage due to ground shaking would be minimized by proper design of the Proposed Project and compliance with standard code requirements. The Proposed Project does not involve construction activities which would produce substantial ground shaking. Therefore, a less than significant impact would occur, and no mitigation is required.

iii) **No Impact.** Liquefaction is a phenomenon where water-saturated granular soil loses shear strength during strong ground shaking produced by earthquakes. The loss of soil strength occurs as a

consequence of cyclic pore water pressure increasing below the groundwater surface. Potential hazards due to liquefaction include loss of bearing strength beneath structures, possibly causing foundation failure and/or significant settlements and differential settlements. There are no areas of liquefaction mapped within the Project Area at BNVSP (DOC 2023b). Therefore, a less than significant impact would occur, and no mitigation is required.

iv) **No Impact.** The Proposed Project Area is not located within a region that is prone to landslides (DOC 2023c). Additionally, part of the Proposed Project is intended to rehabilitate the existing roadside conditions. The Project would enhance the existing Ritchey Creek conditions and restore it to its natural state. Therefore, a less than significant impact would occur, and no mitigation is required.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐

Less than Significant Impact.

The proposed project will have a total disturbance acreage of under 1 acre (approximately 0.22 acres). Therefore, no SWPPP would be required. However, SPR GEO-1 and SPR GEO-2 have been incorporated into the Project design to ensure these impacts remain at a less than significant level. No mitigation is required.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒

No Impact.

As noted above, the Proposed Project Area is not located within a site prone to landslides, liquefaction, lateral spreading. Additionally, the Project Area is not located on a geologic unit or soils that are typically unstable and would not become unstable as a result of the Project. Project construction would involve implementation of BMPs and engineering practices to stabilize soils and slopes.

Therefore, no impact would occur, and mitigation is not required.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

No Impact.

Expansive soils are those soils that have high clay content that swell when wet and shrink when dry. Soils on the Project Area are loams, clay loams, and silt loam, but do not have a high enough clay content that would swell when wet and shrink when dry. No impact would occur, and no mitigation is required.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

No Impact.

Septic tanks or alternative wastewater disposal systems are not part of the Proposed Project design. No impacts would occur. No mitigation is required.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

Less than Significant Impact.

According to the Sierra College Earth and Science Department, their records indicate there are four paleontological records to the northwest of the Project Area in the Calistoga area, however, nothing within the Proposed Project Area. The fossil leaf and fish material are listed as being recovered from the Miocene Sonoma volcanics. Additionally, there are no known unique paleontological or geologic resources within the Proposed Project Area according to the records searches and the Napa County General Plan EIR. However, it is possible that paleontological resources may be found during construction and therefore, implementation of SPR PALEO-1 would ensure potential impacts remain less than significant.

4.7.3 Mitigation Measures/PSR/SPR

No significant impacts were identified and no MMs are required. SPRs GEO-1 through GEO-3 as well as PALEO-1 have been applied to further reduce impacts ensuring the impacts are less than significant.

SPR GEO-1: Erosion Control BMPs. State Parks will implement BMPs to be used in all construction areas to reduce or eliminate the discharge of soil, surface water runoff, and pollutants during all excavation, grading, or trenching.

BMPs must always be in place including, but not limited to, covering (tarping) any stockpiled materials or soils, and constructing silt fences, straw bale barriers, wildlife-friendly fiber rolls, or other structures around stockpiles and disturbed areas.

SPR GEO-2: Heavy Equipment. No track-mounted or heavy-wheeled vehicles will be driven through wet areas during the rainy season or when soils are saturated to avoid compaction and/or damage to soil structure.

SPR PALEO-1: Discovery of Unknown Resources. If any paleontological resources (i.e., fossils) are found during Project construction, construction shall be halted immediately in the subject area and the area shall be isolated using orange or yellow fencing until State Parks is notified and the area is cleared for future work. A qualified paleontologist shall be retained to evaluate the find and recommend appropriate treatment of the inadvertently discovered paleontological resources. If State Parks resumes work in a location where paleontological remains have been discovered and cleared, the State Parks will have a paleontologist onsite to confirm that no additional paleontological resources are in the area.

4.8 Greenhouse Gas Emissions

4.8.1 Environmental Setting

GHG emissions are released as byproducts of fossil fuel combustion, waste disposal, energy use, land use changes, and other human activities. This release of gases, such as carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and chlorofluorocarbons, creates a blanket around the earth that allows light to pass through but traps heat at the surface, preventing its escape into space. While this is a naturally occurring process known as the greenhouse effect, human activities have accelerated the generation of GHGs beyond natural levels. The overabundance of GHGs in the atmosphere has led to an unexpected warming of the earth and has the potential to severely impact the earth's climate system.

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. CH_4 traps more than 25 times more heat per molecule than CO_2, and N_2O absorbs 298 times more heat per molecule than CO_2. Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO_2e). Expressing GHG emissions in CO_2e takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted.

The local air quality agency regulating the SFBAAB, including the Project Area, is the BAAQMD, the regional air pollution control officer for the basin. The BAAQMD *2022 CEQA Guidelines* present a project-level operational threshold of significance for GHG emissions based on adherence to a suite of BAAQMD performance standards for land uses projects directly related to building design, transportation and consistency with the CEQA Guidelines Section 15183.5(b) or compliance with a Qualified GHG Reduction Strategy. BAAQMD has developed the BAAQMD performance standards for land uses projects based on typical residential and commercial land use projects and typical long-term communitywide planning documents such as general plans and similar long-range development plans. The BAAQMD performance standards are intended for new land use development projects to achieve California's long-term climate goal of carbon neutrality by 2045. According to the BAAQMD, these performance standards may not be appropriate for other types of projects that do not fit into the mold of a typical residential or commercial project or general plan update (BAAQMD 2023). The BAAQMD states that lead agencies should keep this point in mind when evaluating other types of projects (BAAQMD 2023). The Proposed Project is not a typical residential or commercial project and does not involve a new land use on the Project Area. Therefore, the BAAQMD performance standards for land use projects based on typical new residential and new commercial land use projects are not appropriate for use in this analysis.

For the purposes of this analysis, Project GHG emissions are quantified and compared to the thresholds issued by the California Air Pollution Control Officers Association (CAPCOA), which is an association of the air pollution control officers from all 35 local air quality agencies throughout California, including the BAAQMD. CAPCOA recommends a significance threshold of 900 metric tons annually. This threshold is based on a capture rate of 90 percent of land use development projects, which in turn translates into a 90 percent capture rate of all GHG emissions. The 900 metric ton threshold is considered by CAPCOA to be low enough to capture a substantial fraction of future projects that will be constructed to accommodate future statewide population and economic growth, while setting the emission threshold high enough to exclude small projects that will in aggregate contribute a relatively small fraction of the cumulative statewide GHG emissions.

Following its review of various potential GHG thresholds that were proposed in an academic study (Crockett 2011), in *Center for Biological Diversity v. Department of Fish and Wildlife* (2015) 62 Cal. 4th 2014, 213, 221, 227, the California Supreme Court identified the use of numeric bright-line thresholds as a potential pathway for compliance with CEQA GHG requirements. The study found numeric bright line thresholds designed to determine when small projects were so small as to not cause a cumulatively considerable impact on global climate change was consistent with CEQA. Specifically, PRC section 21003(f) provides it is a policy of the State that:

> …[a]ll persons and public agencies involved in the environmental review process be responsible for carrying out the process in the most efficient, expeditious manner in order to conserve the available financial, governmental, physical and social resources with the objective that those resources may be better applied toward the mitigation of actual significant effects on the environment.

The Supreme Court-reviewed study noted that:

> …[s]ubjecting the smallest projects to the full panoply of CEQA requirements, even though the public benefit would be minimal, would not be consistent with implementing the statute in the most efficient, expeditious manner. Nor would it be consistent with applying lead agencies' scarce resources toward mitigating actual significant climate change impacts. (Crockett 2011)

As previously described, the 900 metric tons of CO_2e per year threshold represents a 90 percent capture rate (i.e., this threshold captures projects that represent approximately 90 percent of GHG emissions from new sources). The 900 metric tons of CO_2e per year value is typically used in defining small projects that are considered less than significant because it represents less than one percent of future 2050 statewide GHG emissions target and the lead agency can provide more efficient implementation of CEQA by focusing its scarce resources on the top 90 percent. Land use projects above the 900 metric tons of CO_2e per year level would fall within the percentage of largest projects that are worth mitigating without wasting scarce financial, governmental, physical and social resources (Crockett 2011). As noted in the academic study, the fact that small projects below a numeric bright line threshold are not subject to CEQA-based mitigation, does not mean such small projects do not help the state achieve its climate change goals because even small projects participate in or comply with non-CEQA-based GHG reduction programs, such constructing development in accordance with statewide GHG-reducing energy efficiency building standards, called Cal Green or Title 24 energy-efficiency building standards (Crockett 2011), which among many goals seek to reduce GHG emissions from construction projects.

4.8.2 Greenhouse Gas Emissions (VIII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐

Less than Significant Impact.

Where GHG emission quantification was required, emissions were modeled using CalEEMod version 2022.1. CalEEMod is a statewide land use emissions computer model designed to quantify potential GHG emissions associated with both construction and operations from a variety of land use projects. Project construction generated GHG emissions were calculated using CalEEMod model defaults for Napa County in addition to the construction timeline provided in the Project Description of this Draft IS/MND. As the Project is proposing to restore the channel crossing at Park's Day Use Road/Bothe State Park Road as well as re-paving at two additional locations within the park, operational GHG emissions are discussed qualitatively.

4.8.2.1 Construction Greenhouse Gas Emissions

Construction-related activities that would generate GHG emissions include worker commute trips, haul trucks carrying supplies and materials to and from the Project Area, and off-road construction equipment

(e.g., dozers, loaders, excavators). Table 4.8-1 illustrates the specific construction generated GHG emissions that would result from construction of the Project. Once construction is complete, the generation of these GHG emissions would cease.

Table 4.8-1. Construction-Related Greenhouse Gas Emissions

Emissions Source	CO_2e (Metric Tons/Year)
Construction Year One	163
CAPCOA Significance Threshold	*900*
Exceed CAPCOA Significance Threshold?	**No**

Notes: CAPCOA = California Air Pollution Control Officers Association; CO_2e = carbon dioxide equivalent
Source: California Emissions Estimator Model version 2022.1. Refer to Appendix A for Model Data Outputs.

As shown in Table 4.8-1, Project construction would result in the generation of approximately 163 metric tons of CO_2e over the course of construction. This would be less than the CAPCOA GHG significance threshold. Also, once construction is complete, the generation of these GHG emissions would cease. This impact is less than significant.

4.8.2.2 Operational Greenhouse Gas Emissions

The Proposed Project would not include the provision of new permanent stationary or mobile sources of criteria air pollutant emissions, and therefore, by its very nature, would not generate quantifiable GHG emissions from Project operations beyond existing conditions. The Project is proposing restoration to the channel at the Day Park Road crossing of Ritchie Creek as well as re-paving various existing roads. The Proposed Project's operations would not require any new crew or staff beyond current conditions; therefore, once the Proposed Project is implemented, there would be no increase in automobile trips to the area. Once construction is complete the Project would not be a source of GHG emissions. There would be no impact.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

No Impact.

California promulgates several mandates and goals to reduce statewide GHG emissions, including the goal to reduce statewide GHG emissions to 40 percent below 1990 levels by the year 2030 (SB 32) and 80 percent below 1990 levels by the year 2050 (Executive Order S-3-05). The Proposed Project is subject to compliance with SB 32. As discussed previously, construction Project-generated GHG emissions would not surpass the significance threshold of 900 metric tons of CO_2e annually established by the CAPCOA and would not increase operational GHG emissions beyond current conditions. The 900 $MTCO_2e$ threshold

was prepared with the purpose of complying with statewide GHG-reduction efforts. Additionally, once construction of the Project is complete, there would not be any new sources of operational GHG emissions beyond existing conditions. Therefore, there is no impact.

4.8.3 Mitigation Measures/PSR/SPR

No significant impacts were identified, and no MMs are required. No SPRs or PSRs were identified for the Project.

4.9 Hazards and Hazardous Materials

4.9.1 Regulatory Framework

As defined in Title 22 of the CCR, Division 4.5, Chapter 11, Article 3, hazardous materials are substances with certain physical properties that could pose a substantial present or future hazard to human health or the environment when improperly handled, disposed, or otherwise managed. Hazardous materials are commonly used in commercial, agricultural, and industrial applications, as well as residential uses to a limited extent.

Hazardous wastes are any hazardous materials that are discarded, abandoned, or are to be recycled. If improperly handled, hazardous materials and wastes can result in public health hazards if released to the soil or groundwater through airborne releases in vapors, fumes, or dust.

In California, the USEPA has granted most enforcement authority over federal hazardous materials regulations to the California Environmental Protection Agency and the California Department of Toxic Substances Control (DTSC) and the RWQCBs signed a Memorandum of Agreement (MOA) in March 2005 aimed to avoid duplication of efforts among the agencies involved in the regulatory oversight of investigation and cleanup of hazardous wastes. Under the MOA, either DTSC or the RWQCB is assigned to be the oversight agency at the beginning of the investigation and cleanup process.

In 2020, Napa County adopted the Napa County Multi-Jurisdictional Hazard Mitigation Plan Update (MJHMP), prepared in cooperation with the Cities of American Canyon, Calistoga, and St. Helena and the Town of Yountville. The Napa County MJHMP contains a detailed assessment of prevalent hazards within the county, including a vulnerability assessment that illustrates how each hazard may affect populations, property, and critical facilities within the county's jurisdiction.

4.9.1.1 Hazardous Materials Onsite

According to the DTSC EnviroStor database, there are no cleanup sites near the Proposed Project Area.

The types of materials used and stored in BNVSP that could be hazardous include fluids such as motor vehicle and mechanical equipment fuels, oils, and other lubricants. State Parks maintain storage facilities for fuels and lubricant within the park unit. No storage facilities, or other structures or industrial sites that could contain hazardous materials are located at the site of the Proposed Project.

4.9.1.2 Airports

Two airports exist in Napa County (Napa County 2019). Of these, the Napa County Airport is located about 6.5 air miles south of the City of Napa. The Angwin Airport is privately owned and operated and is located approximately 6 miles to the east of the Proposed Project. The Project Area is not within an airport land use zone/plan, or within two miles of a public airport or private air strip.

4.9.1.3 Schools

The closest school to the Proposed Project Area is Calistoga Elementary School, within the Calistoga Joint Unified School District, located approximately 3 miles away.

4.9.1.4 Fire

The BNVSP is designated as a State Responsibility Area (SRA) for fire protection. The California Department of Forestry and Fire Protection (CAL FIRE) describes the fire hazard severity for BNVSP as high and very high (CAL FIRE 2023). The nearest CAL FIRE station is Napa Valley Fire Department and the CAL FIRE Sonoma-Lake-Napa Unit Headquarters, approximately half a mile from the Proposed Project Area.

4.9.2 Hazards and Hazardous Materials (IX) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐

Less than Significant Impact.

Construction activities associated with the Proposed Project could require the use of certain hazardous materials such as fuels, oils, lubricants, or other fluids associated with the operation and maintenance of vehicles and equipment. Generally, these materials would be contained within vessels engineered for safe storage. Large quantities of these materials would not be stored at or transported to the Proposed Project Area, after Project completion, given the nature of the Project, there would be no significant hazards or requirement for the routine transport, use, or disposal of hazardous materials. Additionally, the Project will implement SPRs BIO-7, and HAZ-1 and 3 to help ensure that impacts remain at a less than significant level.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☒	☐

Less than Significant Impact.

During the construction of the Proposed Project, hazardous substances could be released to the environment from construction-related vehicles or equipment fluid spills or leaks, while heavy equipment, such as mini excavators and dozers are in operation. Hazardous substances would be limited to the construction staging and parking areas. Integration of SPR HAZ-1 and SPRs BIO-6, would ensure that the risk to onsite workers, the public, and the environment remains at a less than significant level.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) 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.

As noted in the Environmental Setting above, there are no schools within 0.25 miles of the Project Area. No impact would occur from implementation of the Proposed Project.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒

No Impact.

No part of BNVSP is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5. No areas within the Proposed Project Area are currently restricted or known to have hazardous materials present. No impact would occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	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 for people residing or working in the project area?	☐	☐	☐	☒

No Impact.

The Proposed Project is not located within an airport land use zone/plan, within two miles of a public airport, or in the vicinity of a private air strip. Therefore, the Proposed Project would not result in a safety hazard to people in the area. No impact would occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐

Less than Significant Impact.

Temporary construction activities associated with the Proposed Project would occur west of Saint Helena Highway and involve access routes within the park. Construction of the bridge crossing will last approximately 10-14 days. Secondary emergency access (currently existing but not utilized) will be available to all parts of the park during construction. Therefore, the potential impact would be less than significant for impacting emergency response/evacuation plans.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

Less than Significant Impact.

The Proposed Project Area is in a rural setting with scattered structures in the vicinity and is designated by the state as within a high and very high fire hazard zone. It is possible that construction equipment could become hot with extended use near flammable vegetation. Improperly outfitted exhaust systems or friction between metal parts and/or rocks could generate sparks, resulting in a fire. Integration of SPR

HAZ-2 through HAZ-5, Wildfire Avoidance and Response would ensure that impacts from wildfire remain less than significant.

4.9.3 Mitigation Measures/PSR/SPR

No significant impacts were identified and no MMs are required. SPRs BIO-6, HAZ-1 through HAZ-5 have been applied to further reduce impacts ensuring the impacts remain less than significant.

SPR BIO-6: Runoff Prevention. Project personnel will employ BMPs for erosion control to avoid runoff of Project-related sediments, vehicle fluids, and other liquids into special plant communities.

SPR HAZ-1: Spill Prevention and Response. Prior to the start of onsite construction activities, the construction manager will inspect all equipment for leaks and regularly inspect thereafter until equipment is removed from the Project Area. All contaminated water, sludge, spill residue, or other hazardous compounds will be contained and disposed of outside the boundaries of the site, at a lawfully permitted or authorized destination.

SPR HAZ-2: Wildfire Avoidance and Response. Prior to the start of construction, the construction manager will develop a Fire Safety Plan for State Parks approval. The plan will include the emergency calling procedures for both CAL FIRE and local fire department(s).

SPR HAZ-3: Wildfire Avoidance and Response. State Parks personnel will have a State Park radio at the Project Area, which allows direct contact with CAL FIRE and a centralized dispatch center, to facilitate the rapid dispatch of control crews and equipment in case of a fire.

SPR HAZ-4: Wildfire Avoidance and Response. Under dry conditions, an available water resource or fire suppressant shall be onsite during activities with the potential to start a fire.

SPR HAZ-5: Wildfire Avoidance and Response. All heavy equipment will be required to include spark arrestors or turbo chargers (which eliminate sparks in exhaust) and have fire extinguishers onsite.

Construction crews shall park vehicles in an area without flammable materials, such as dry grass or brush. At the end of each workday, construction crews shall park heavy equipment over a non-combustible surface to reduce the chance of fire.

4.10 Hydrology and Water Quality

4.10.1 Environmental Setting

The 1.34-acre study area consists of two separate areas in the BNVSP: the 1.04-acre culvert study area along Ritchey Creek including adjacent roads, and a 0.30-acre staging area closer to the entrance to the park. The study area is near the entrance to the State Park off State Route 29 and is adjacent to the Visitor Center. The area along Ritchey Creek is characterized as a riparian setting that is dissected by the culverts within the creek and paved access roads leading to park day use and overnight camping areas. To the north of Ritchey Creek lies the park visitor center, parking area, and a maintenance garage for park operations. The staging area is located to the north of the maintenance garage on the margin of an

access road and woodland. The staging area appears to have routine use for staging and woodcutting of fallen trees.

Hydrology onsite is influenced by precipitation, surface water runoff, geologic stratigraphy, topography, soil permeability, and plant cover. Ritchey Creek is a northeast draining perennial stream that runs through the study area. This feature is shown as a perennial stream in the National Hydrogeography Dataset (ECORP 2023) and as a blue line stream on the U.S. Geological Survey Calistoga topographic map. It is shown as a Freshwater Forested/Shrub Wetland in the National Wetland Inventory (USFWS 2024).

The stream flows northeast through the study area, and crosses under State Route 29 approximately 300 feet downstream of the study area. From here it travels northeast in vegetated ditches through agricultural fields for 0.7 mile until it joins the Napa River. The Napa River drains south for 45 miles until it empties into San Pablo Bay just west of the Carquinez Strait, near Vallejo.

There are seven points of diversion along Ritchey Creek at 4 separate locations. All are upstream of the study area except A022785 which is downstream of the study area on the north side of State Route 29.

The Proposed Project is located within flood Zone A, as determined by the Federal Emergency Management Agency (FEMA 2008). All streams in the Proposed Project Area are subject to an increase in surface water flows from precipitation and runoff during storm events and are characterized with a 1 percent chance of annual flood.

The Proposed Project Area falls under the jurisdiction of the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB), which regulates water quality in the region and provides water quality standards and management criteria as required by the CWA. These standards and criteria are identified in the 2023 Water Quality Control Plan (Basin Plan) for the San Francisco Bay Region. The Proposed Project would comply with all applicable water quality standards as specified in the SFBRWQCB Basin Plan.

According to the ARD for the Culvert Replacement Project that was prepared by Nomad Ecology, there is a total of 0.075 acres of potential Waters of the U.S. that were delineated within the Proposed Project Area. Additionally, the Project Area supports 0.002 acres of wetland areas in the form of seep fed ditch and 0.006 acres of culvert. More information regarding the delineated wetlands can be found in Appendix D of this report.

4.10.2 Hydrology and Water Quality (X) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐

Less than Significant Impact.

The Proposed Project involves the rehabilitation of the Ritchey Creek natural creek channel bottom and reconstruction of the roadway bridge in BNVSP. Proposed construction includes but is not limited to

minor roadway realignments, road surfacing, new bridge construction, and removal of two culverts and restoration of the natural creek bottom. Proposed ground-disturbing activities could temporarily produce sediments that contaminate surface waters; however, the existing Ritchey Creek channel bottom at the road crossing would be improved to reduce erosion or sedimentation problems. Other temporary impacts to water quality could result from releases of fuels or other fluids from equipment during the construction process. Hazardous substances would be limited to the construction staging and parking areas, which are proposed at an access point from Highway 29.

Incorporation of SPR HYD-1 through HYD-3, BIO-6 and HAZ-1 would ensure the potential for adverse impacts to surface waters remain at a less than significant level.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒

No Impact.

No major aquifers or pre-existing wells exist within the Proposed Project Area. The Project would not utilize any groundwater supplies or interfere with groundwater recharge. No impact would occur with implementation of the Proposed Project.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would:				
i) result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☐	☒

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
iv) impede or redirect flood flows?	☐	☐	☒	☐

Less than Significant Impact.

i) *Less Than Significant Impact.* Existing drainage patterns within the Proposed Project Area would be altered in a manner that would not significantly increase erosion or siltation. Construction of the new bridge will necessitate some grading and alteration to sloping terrain on both sides of the bridge. Structures will include rock retaining walls and Ritchey creek would be rehabilitated and restored to natural conditions. Incorporation of SPR HYD-1 through HYD-3, BIO-6, and HAZ-1 into the Project would ensure sediment laden runoff produced by construction activities remains at a less than significant level.

ii) *Less Than Significant Impact.* The drainage patterns would be altered, but in a manner that would not significantly increase the rate or amount of surface runoff or result in onsite or offsite flooding. Any impact would be less than significant and ultimately beneficial.

iii) *No Impact.* The Proposed Project will comply with State Parks Design Standards and would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Therefore, there is a less than significant impact from this Project.

iv) *Less Than Significant Impact.* As discussed in the Environmental Setting above, the Proposed Project Area is located in a FEMA 100-year flood Zone A. The Proposed Project would neither place structures nor change the landscape in a way that would impede flows. The Project involves the removal of two culverts and restoration of the creek's natural bottom.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐

Less than Significant Impact.

The Project Area could be subject to mudflows or landslides during severe weather events. However, these are existing conditions and Project implementation would not introduce potential new pollutants to the park. Therefore, a less than significant impact would occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Less than Significant Impact.

As described in a) above, temporary impacts to water quality could result from ground-disturbing activities that produce sediments and through releases of fuels or other fluids from equipment during the construction process. While heavy equipment is proposed where able, hazardous substances would be limited to the construction staging and parking areas. The Project will not conflict with or obstruct implementation of a water quality control plan. Incorporation of SPR HYD-1 through HYD-3 (see Section 2 *Project Description* and *Hazards and Hazardous Materials* above) as well as SPR GEO-1 through SPR GEO-3 into the Proposed Project would reduce any adverse impacts to surface waters to a less than significant impact.

4.10.3 Mitigation Measures/PSR/SPR

No significant impacts were identified and no MMs are required. SPRs HYD-1 through HYD-3 as well as SPR HAZ-1 and SPR BIO-6 have been applied to further reduce impacts ensuring the impacts are less than significant.

SPR BIO-6: Runoff Prevention. Project personnel will employ BMPs for erosion control to avoid runoff of Project-related sediments, vehicle fluids, and other liquids into special plant communities.

SPR HAZ-1: Spill Prevention and Response. Prior to the start of onsite construction activities, the construction manager will inspect all equipment for leaks and regularly inspect thereafter until equipment is removed from the Project Area. All contaminated water, sludge, spill residue, or other hazardous compounds will be contained and disposed of outside the boundaries of the site, at a lawfully permitted or authorized destination.

SPR HYD-1: Erosion and Sediment Control and Pollution Prevention. The Project will comply with all applicable water quality standards as specified in the Central Valley Water Quality Control Board Basin Plan.

SPR HYD-2: Erosion and Sediment Control and Pollution Prevention. All construction activities will be suspended during heavy precipitation events (i.e., at least 1/2-inch of precipitation in a 24-hour period) or when heavy precipitation events are forecast.

SPR HYD-3: Erosion and Sediment Control and Pollution Prevention. If construction activities extend into the rainy season or if an un-seasonal storm is anticipated, the trail construction crews contractor will properly winterize the site by covering (tarping) any stockpiled materials or soils and by constructing silt fences, straw bale barriers, fiber rolls, or other structures around

stockpiles and graded areas. All erosion control measures must be wildlife friendly and will not pose a threat for species to become entangled in netting.

4.11 Land Use and Planning

4.11.1 Environmental Setting

BNVSP is located within the unincorporated area of Napa County. Napa County is comprised of approximately 506,000 acres, approximately 479,000 (95 percent) of which is included within the unincorporated areas of the County. The remaining area is distributed among the five incorporated areas in the County: City of American Canyon, City of Calistoga, City of Napa, City of St. Helena, and Town of Yountville.

BNVSP is located between the City of Calistoga and the City of St Helena in an area known as the Napa Valley Floor-Unincorporated/Western Mountains Area. The Napa Valley Floor extends from the northern end of Napa County into the southern end and is directly east of the Western Mountains region. Together, these areas comprise over 20% of the entire County land area. Many creeks run through this area, including Ritchy Creek. This area is largely agricultural with vineyards, wineries, farming, and grazing uses. The vast majority of land on the valley floor is primarily designated for farming and agriculture production, which may include vineyards and lands used for grazing.

The State Parks sometimes prepares Resource Management and General Development Plans for directing the long-range development and management of a park by providing broad policy and program guidance. However, BNVSP is operated by the Napa County Regional Park and Open Space District. The Napa County Regional Park and Open Space District Board of Directors adopted a Master Plan update on July 8, 2019. The District Master Plan adopted in 2008 identifies four goals for the Napa County Regional Park and Open Space District. The Plan described four mail goals as guidance for the district:

1. Preserve, restore, and protect open space lands, watershed resources, and wildlife habitat.
2. Develop a system of parks, trails, and accessible open space that supports outdoor recreation and promotes physical and mental health.
3. Provide historical, cultural, and environmental education.
4. Pursue effective District management and interagency partnerships.

4.11.2 Land Use and Planning (XI) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒

No Impact.

The Proposed Project would not divide an established community. The nature of the Project is to reconstruct a bridge crossing and restore fish passage through Ritchey Creek. Therefore, there would be no impact.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

No Impact.

The Napa Open Space District Master Plan specifically calls out restoring Ritchey Creek for fish migration and spawning. The Proposed Project does not conflict with any land use plan, policy, or regulation. Therefore, no impacts would occur.

4.11.3 Mitigation Measures/PSR/SPR

No significant impacts were identified and no MMs are required. No SPRs or PSRs were identified for the Project.

4.12 Mineral Resources

4.12.1 Environmental Setting

Despite historic mining activities, the geologic opportunities for future mineral extraction operations in Napa County are not clearly demarcated. State mineral resource zones are not documented for the majority of Napa County. There are three active aggregate mines in Napa County: Napa Quarry and American Canyon Quarry are operated by Syar Industries, Inc., and Pope Creek Quarry is operated by Don Wesner, Inc.

No significant mineral resources have been identified within the boundaries of the park units and no other known past mining activities have occurred at BNVSP. State Parks policy does not permit the commercial extraction of mineral resources due to impacts to resources and in accordance with PRC § 5001.65 (DOC 2023d).

4.12.2 Mineral Resources (XII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

No Impact.

There are no known mineral resources or locally important mineral resources located within the BNVSP. Furthermore, the Proposed Project would not change land use activities on the site and would therefore not result in the loss of availability of any mineral resources. As stated in the Environmental Setting above, under PRC § 5001.65, mining within any unit of the State Park System is prohibited. There would be no impact with implementation of the Proposed Project.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

No Impact.

See discussion (a) above. There would be no impact with implementation of the Proposed Project.

4.12.3 Mitigation Measures/PSR/SPR

No significant impacts were identified and no MMs are required. No SPRs or PSRs were identified for the Project.

4.13 Noise

4.13.1.1 Noise Fundamentals

Noise is generally defined as sound that is loud, disagreeable, or unexpected. The selection of a proper noise descriptor for a specific source is dependent on the spatial and temporal distribution, duration, and fluctuation of the noise. The noise descriptors most often encountered when dealing with traffic, community, and environmental noise include the average hourly noise level (L_{eq}), the average daily noise level (L_{dn}), and the Community Noise Equivalent Level (CNEL). The L_{eq} is a measure of ambient noise, while the L_{dn} and CNEL are measures of community noise. Each is applicable to this analysis and defined as follows:

- L_{eq} is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
- L_{dn} is a 24-hour average L_{eq} with a 10 A-weighted decibels (dBA) "weighting" added to noise during the hours of 10:00 pm to 7:00 am to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.4 dBA L_{dn}.
- CNEL is a 24-hour average L_{eq} with a 5-dBA weighting during the hours of 7:00 pm to 10:00 pm and a 10-dBA weighting added to noise during the hours of 10:00 pm to 7:00 am to account for noise sensitivity in the evening and nighttime, respectively.

Noise can be generated by several sources, including mobile sources, such as automobiles, trucks and airplanes, and stationary sources, such as construction sites, machinery, and industrial operations.

Sound spreads (propagates) uniformly outward in a spherical pattern, and the sound level decreases (attenuates) at a rate of approximately 6 decibels (dB) for each doubling of distance from a stationary or point source. Sound from a line source, such as a highway, propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of approximately 3 dB for each doubling of distance from a line source, such as a roadway, depending on ground surface characteristics (Federal Highway Administration [FHWA] 2011). Soft surfaces, such as soft dirt or grass, can absorb sound, so an excess ground-attenuation value of 1.5 dB per doubling of distance is normally assumed (FHWA 2011).

The manner in which older structures in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows (Caltrans 2002). The exterior-to-interior reduction of newer structures is generally 30 dBA or more (Harris Miller, Miller & Hanson Inc. 2006).

Human Response to Noise

The human response to environmental noise is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem, not in terms of actual physiological damage, such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities, including sleep, speech, recreation, and tasks that demand concentration or coordination. Hearing loss can occur at the highest noise intensity levels.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day or night or over a 24-hour period. Environmental noise levels are generally considered low when the CNEL is below 60 dBA, moderate in the 60- to 70-dBA range, and high, above 70 dBA. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet, suburban, residential streets with noise levels around 40 dBA. Noise levels above 45 dBA at night

can disrupt sleep. Examples of moderate-level noise environments are urban residential or semi-commercial areas (typically 55 to 60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with noisier urban residential or residential-commercial areas (60 to 75 dBA) or dense urban or industrial areas (65 to 80 dBA). Regarding increases in dBA, the following relationships should be noted in understanding this analysis:

- Except in carefully controlled laboratory experiments, a change of 1.0 dBA cannot be perceived by humans.
- Outside of the laboratory, a 3.0-dBA change is considered a just-perceivable difference.
- A change in level of at least 5.0 dBA is required before any noticeable change in community response would be expected. An increase of 5.0 dBA is typically considered substantial.

A 10.0-dBA change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

Sensitive Noise Receptors

According to the Napa County General Plan Community Character Element, noise-sensitive land uses are those in which noise can adversely affect what people are doing on the land. For example, residential land uses, where people live, sleep, and study, is generally considered sensitive to noise because noise can disrupt these activities. Churches, schools, and certain kinds of outdoor recreation are also usually considered noise-sensitive land uses as well.

The Project is proposing bridge replacement and restoration to the channel of Ritchie Creek at the Day Use Road crossing as well as re-paving various existing roads/ parking areas encompassing three locations within the park. The nearest noise sensitive receptors to the proposed improvements are residences located directly north of the Park's Day Use Road/Bothe State Park Road crossing at Ritchie Creek fronting Highway 29.

4.13.1.2 Vibration Sources and Characteristics

Ground vibration can be measured several ways to quantify the amplitude of vibration produced, including through Peak Particle Velocity (PPV) or root mean square velocity. These velocity measurements measure maximum particle at one point or the average of the squared amplitude of the signal, respectively. Vibration impacts on people can be described as the level of annoyance and can vary depending on an individual's sensitivity. Generally, low-level vibrations may cause window rattling but do not pose any threats to the integrity of buildings or structures.

4.13.1.3 Existing Ambient Noise Environment

The Project Area is located within the BNVSP, which provides a variety of recreational amenities such as camping, picnicking, swimming, and hiking trails to nature seekers of various skill levels. The surrounding

area is mostly State Park land with a scattering of residences and wineries/ wedding venues as well as Highway 29 which traverses the northwestern boundary of BNVSP.

The American National Standards Institute (ANSI) Standard 12.9-2013/Part 3 "Quantities and Procedures for Description and Measurement of Environmental Sound – Part 3: Short-Term Measurements with an Observer Present" provides a table of approximate background sound levels in CNEL, daytime L_{eq}, and nighttime L_{eq}, based on land use and population density. The ANSI standard estimation divides land uses into six distinct categories. Descriptions of these land use categories, along with the typical daytime and nighttime levels, are provided in Table 4.13-1. At times, one could reasonably expect the occurrence of periods that are both louder and quieter than the levels listed in the table. ANSI notes, "95% prediction interval [confidence interval] is on the order of ±10 dB." As previously described, the Project is proposing replacement of an existing bridge and restoration to portions of the Ritchey Creek channel within the BNVSP as well as re-paving activities. All construction activities would take place within the park. The Project locations would be considered ambient noise Category 5 and generally experiences noise levels of 47 dBA L_{dn} at a maximum. Furthermore, the Project Area may experience noise levels as low as 39 dBA. However, it is acknowledged, the noise levels within the Park and surrounding area will fluctuate with the time of year as warmer months see an increase in activity and visitor traffic.

Table 4.13-1. ANSI Standard 12.9-2013/Part 3 A-weighted Sound Levels Corresponding to Land Use and Population Density

Category	Land Use	Description	People per Square Mile	Typical L_{dn}	Daytime L_{eq}	Nighttime L_{eq}
1	Noisy Commercial & Industrial Areas and Very Noisy Residential Areas	Very heavy traffic conditions, such as in busy, downtown commercial areas; at intersections for mass transportation or other vehicles, including elevated trains, heavy motor trucks, and other heavy traffic; and at street corners where many motor buses and heavy trucks accelerate.	63,840	67 dBA	66 dBA	58 dBA
2	Moderate Commercial & Industrial Areas and Noisy Residential Areas	Heavy traffic areas with conditions similar to Category 1, but with somewhat less traffic; routes of relatively heavy or fast automobile traffic, but where heavy truck traffic is not extremely dense.	20,000	62 dBA	61 dBA	54 dBA

Table 4.13-1. ANSI Standard 12.9-2013/Part 3 A-weighted Sound Levels Corresponding to Land Use and Population Density

Category	Land Use	Description	People per Square Mile	Typical L_{dn}	Daytime L_{eq}	Nighttime L_{eq}
3	Quiet Commercial, Industrial Areas and Normal Urban & Noisy Suburban Residential Areas	Light traffic conditions where no mass-transportation vehicles and relatively few automobiles and trucks pass, and where these vehicles generally travel at moderate speeds; residential areas and commercial streets, and intersections, with little traffic, compose this category.	6,384	57 dBA	55 dBA	49 dBA
4	Quiet Urban & Normal Suburban Residential Areas	These areas are similar to Category 3, but for this group, the background is either distant traffic or is unidentifiable; typically, the population density is one-third the density of Category 3.	2,000	52 dBA	50 dBA	44 dBA
5	Quiet Residential Areas	These areas are isolated, far from significant sources of sound, and may be situated in shielded areas, such as a small-wooded valley.	638	47 dBA	45 dBA	39 dBA
6	Very Quiet Sparse Suburban or rural Residential Areas	These areas are similar to Category 4 but are usually in sparse suburban or rural areas; and, for this group, there are few if any nearby sources of sound.	200	42 dBA	40 dBA	34 dBA

Notes: ANSI = American National Standards Institute; L_{dn} = average daily noise level; L_{eq} = average hourly noise level

Source: ANSI 2013

4.13.2 Noise (XIII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐

Less than Significant Impact.

4.13.2.1 Onsite Construction Noise

Construction noise associated with the Proposed Project would be temporary and would vary depending on the specific nature of the activities being performed. Noise generated would primarily be associated with the operation of off-road equipment for onsite construction activities as well as construction vehicle traffic on area roadways. Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., site preparation, excavation, paving). Noise generated by construction equipment, including earth movers, pile drivers, and portable generators, can reach high levels. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts). During construction, exterior noise levels could negatively affect sensitive land uses in the vicinity of the construction site.

The Project is proposing replacement of an existing metal culvert and restoration to the channel of Ritchie Creek within the BNVSP as well as re-paving various existing roads/ parking areas encompassing three locations within the park. Since the affected noise-sensitive receptors are located in unincorporated Napa County, Project construction noise is evaluated for consistency with County of Napa construction noise standards. The Napa County Municipal Code Section 8.16.080 limits construction noise to 75 dBA L_{eq} between 7:00 a.m. to 7:00 p.m. (daytime), and 60 dBA L_{eq} between 7:00 p.m. and 7:00 a.m. (nighttime) as experienced at residential properties.

The nearest noise sensitive receptors to the proposed improvements are residences located directly north of the Park's Day Use Road/Bothe State Park Road crossing at Ritchie Creek fronting State Route 29. This analysis employs Federal Transit Administration (FTA) guidance for calculating construction noise, which recommends measuring construction noise produced by all construction equipment simultaneously from the center of the Project Area (FTA 2018), which in this case is approximately 250 feet from the nearest public residence fronting State Route 29. The park does include a handful of residences that are used off and on during the year by park employees; however, these employees will not be home during the majority of construction hours. The anticipated short-term construction noise levels generated for the necessary equipment for each phase of construction are presented in Table 4.13-2. Per the construction

timing identified in the Project Description of this Draft IS/MND, some phases of construction (i.e., demolition and site preparation) would occur simultaneously.

Table 4.13-2. Construction Average (dBA) Noise Levels at Nearest Receptors

Construction Phase	Estimated Exterior Construction Noise Level @ Closest Noise Sensitive Receptor (dBA L_{eq})	Construction Noise Standard (dBA L_{eq}) (daytime/nighttime)	Exceeds Standards?
Demolition & Site Preparation	73.1	*75/60*	**No/Yes**
Grading & Construction	71.9	*75/60*	**No/Yes**
Paving	69.1	*75/60*	**No/Yes**

Notes: CalEEMod = California Emissions Estimator Model; dBA = A-weighted decibels; FHWA = Federal Highway Administration; FTA = Federal Transit Administration
L_{eq} =The equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
Construction equipment used during construction derived from CalEEMod. CalEEMod is designed to calculate air pollutant emissions from construction activity and contains default construction equipment and usage parameters for typical construction projects based on several construction surveys conducted in order to identify such parameters. Consistent with FTA recommendations for calculating construction noise, construction noise was measured from the center of the Project Area (FTA 2018), which is approximately 250 feet from the nearest residence for construction activities.

Source: Construction noise levels were calculated by ECORP Consulting, Inc. using the FHWA Roadway Noise Construction Model (FHWA 2006). Refer to Appendix G for Model Data Outputs.

As shown in Table 4.13-2, construction activities would not exceed the 75 dBA L_{eq} County threshold for construction noise during any phase of construction experienced by nearby noise-sensitive receptors. Thus, Project construction noise would not exceed the daytime (7:00 a.m. to 7:00 p.m.) construction noise threshold. However, any Project construction conducted during the nighttime hours (7:00 p.m. to 7:00 a.m.) would exceed the County nighttime noise level threshold of 60 dBA L_{eq}. Therefore, SPR NOI-1 through SPR NOI-3 will be implemented to ensure, all Project construction would abide by County noise standards and be considered less than significant.

4.13.2.2 Offsite Construction Worker Trips

Project construction would result in additional traffic on adjacent roadways over the period that construction occurs. According to CalEEMod, which is used to predict the number of construction-related automotive trips, the maximum number of Project construction trips traveling to and from the Project Area during the construction phase would not be expected to exceed 77 daily trips in total. According to the Caltrans Technical Noise Supplement to the Traffic Noise Analysis Protocol (Caltrans 2013), a doubling of traffic on a roadway is required to result in an increase of 3 dB (outside of the laboratory, a 3-dBA change is considered a just-perceivable difference). The Park is accessible from Highway 29. According to Caltrans (2022), the roadway segment on Saint Helena Highway between Silverado Trail and Pope Valley Road, which traverses the Project Area, accommodates 2,550 average daily trips. Thus, Project

construction would not result in a doubling of traffic, and therefore its contribution to existing traffic noise would not be perceptible. Additionally, it is noted that construction is temporary, and these trips would cease upon completion of the Project and therefore the impact is less than significant.

4.13.2.3 Operational Onsite Stationary Noise

As previously described, The Project is proposing replacement of an existing bridge and restoration to the channel of Ritchie Creek within the BNVSP as well as re-paving various existing roads/ parking areas encompassing three locations within the Park. Once construction is complete, the Project would not attract visitors to the park beyond current conditions.

4.13.2.4 Operational Offsite Traffic Noise

Upon completion of the Proposed Project, additional traffic on area roadways resulting from the Project would be the same as current conditions. The Project would not contribute to an increase in visitors or employees beyond current conditions. No impact would occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Result in generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐

Less than Significant Impact.

4.13.2.5 Construction Vibration Analysis

Excessive groundborne vibration impacts result from continuously occurring vibration levels. Increases in groundborne vibration levels attributable to the Project would be primarily associated with short-term, construction-related activities. Construction on the Project Area would have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude as the distance from the source increases.

Construction-related ground vibration is normally associated with impact equipment, such as pile drivers and jackhammers, and the operation of some heavy-duty construction equipment, such as dozers and trucks. Vibration decreases rapidly with distance and construction activities would occur throughout the Project Area and would not be concentrated at the point closest to sensitive receptors. Table 4.13-3 summarizes groundborne vibration levels associated with construction equipment.

Table 4.13-3. Representative Vibration Source Levels for Construction Equipment	
Equipment Type	**Peak Particle Velocity at 25 Feet (inches per second)**
Large Bulldozer	0.089
Pile Driver	0.170
Loaded Trucks	0.076
Hoe Ram	0.089
Jackhammer	0.035
Small Bulldozer/Tractor	0.003
Vibratory Roller	0.210

Source: California Department of Transportation 2020; Federal Transit Administration 2018

Napa County does not regulate vibration associated with construction. However, a discussion of construction vibration is included for full disclosure purposes. For comparison purposes, Caltrans (2020) recommended standard of 0.3 inches per second PPV with respect to the prevention of structural damage for older residential buildings is used as a threshold. This is also the level at which vibrations may begin to annoy people in buildings.

Consistent with FTA recommendations for calculating construction vibration, construction vibration was calculated to account for all Project construction equipment operating simultaneously from the center of the Project Area (FTA 2018). The nearest offsite structure of concern to the construction site, with regard to groundborne vibrations, it the BNVSP Visitor Center located approximately 200 feet from the Project Area center.

Based on the representative vibration levels presented for various construction equipment types in Table 4.13-3 and the construction vibration assessment methodology published by the FTA (2018), it is possible to estimate the potential Project construction vibration levels. The FTA provides the following equation:

$$[PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}]$$

Table 4.13-4 presents the expected Project related vibration levels at a distance of 200 feet.

Table 4.13-4. Construction Vibration Levels at 200 Feet							
Receiver Peak Particle Velocity Levels (inches/second)[1]					Peak Vibration	Threshold	Exceed Threshold
Large Bulldozer, Caisson Drilling, & Hoe Ram	Loaded Trucks	Jackhammer	Small Bulldozer	Vibratory Roller			
0.0039	0.0033	0.0015	0.0001	0.0092	**0.0092**	*0.3*	**No**

Notes: Distance to the nearest structure is approximately 200 feet measured from the center of the Project Area.

Source [1]Based on the Vibration Source Levels of Construction Equipment included on Table 4.13-2 (Federal Transit Administration 2018).

As shown in Table 3.13-4, vibration as a result of construction activities would not exceed 0.3 PPV. Thus, Project construction would not exceed the recommended threshold. This impact is less than significant.

4.13.2.6 Operational Vibration Impacts

Project operations would not include the use of any large-scale, stationary equipment that would result in excessive vibration levels; therefore, the Project would not result in ground-borne vibration impacts during operations.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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.

According to the Napa County *Airport Land Use Commission Airport Land Use Compatibility Plan* (1999), the Project Area is located outside of all the airport noise contours in the County. Therefore, construction of the Proposed Project would not affect airport operations nor expose people working or visiting the Project Area to an increased exposure to aircraft noise. No impact would occur.

4.13.3 Mitigation Measures/PSR/SPR

No significant impacts were identified and no MMs are required. SPRs NOI-1 through NOI-3 have been applied to further reduce noise impacts during construction ensuring the impacts are less than significant.

SPR NOI-1: Timing. The use of all heavy-duty construction equipment and all Project material deliveries shall be prohibited between 7:00 p.m. and 7:00 a.m.

SPR NOI-2: Sensitive Receptors. The State Parks Project Manager will locate stationary noise sources and staging areas as far from potential sensitive noise receptors, as possible. If they must be located near potential sensitive noise receptors, stationary noise sources will be muffled or shielded, and/or enclosed within temporary sheds.

SPR NOI-3: Construction Hours. Prior to delivery and/or removal of Project-related equipment or materials that could impede or block access to driveways, cross streets, or street parking, the State Parks Project Manager will coordinate with the local jurisdictions to develop and implement traffic control measures.

4.14 Population and Housing

4.14.1 Environmental Setting

Napa County has a population of approximately 134,300 in 2022 (U.S. Census Bureau). The closest residential areas are in the community of Calistoga, located approximately 3.5 miles northwest of BNVSP. The BNVSP is a recreational facility; the development of permanent housing is not a planned use within the park.

4.14.2 Population and Housing (XIV) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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)?	☐	☐	☐	☒

No Impact.

The Project proposes the construction of a new bridge crossing and restoration of Ritchey Creek. The Project does not propose any elements that would induce population growth in the area. Therefore, no impact would occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

No Impact.

No housing would be moved or removed for the Project. No persons would be displaced either temporarily or permanently. There would be no impact with implementation of the Proposed Project.

4.14.3 Mitigation Measures/PSR/SPR

No significant impacts were identified and no MMs are required. No SPRs or PSRs were identified for the Project.

4.15 Public Services

4.15.1 Environmental Setting

Public services include fire and police protection, schools, parks, and other public facilities. BNVSP is located along Saint Helena Highway, approximately 3.5 miles southeast of Calistoga and 4 miles north of the City of St Helena. The Proposed Project Area benefits from existing public services such as fire and law enforcement protection.

4.15.1.1 Police Services

Napa County Sheriff's Office provides immediate law enforcement services for BNVSP. The State Parks Peace Officers also provide law enforcement services for resource-related criminal activities, such as unpermitted fires, resource damages, and natural or cultural resource thefts. Additionally, the State Parks Peace Officers would provide additional law enforcement services, when necessary, to accompany the Napa County Sheriff's Office.

4.15.1.2 Fire Services

Board of Forestry and Fire Protection has primary jurisdiction for fire suppression in SRAs, including units of the State Park System (CAL FIRE 2024). The nearest CAL FIRE station is the Sonoma-Lake-Napa Unit Headquarters, about 0.5 miles from BNVSP. Additionally, the Napa County Fire Department is also roughly 0.5 miles from the Project Area, across Highway 29 from the CAL FIRE station previously mentioned.

4.15.1.3 Schools

The closest school to the Proposed Project Area is Calistoga Elementary School, within the Calistoga Unified School District, located approximately 4.5 miles away.

4.15.1.4 Parks and Other Public Facilities

Many parks and recreational facilities that serve residents and visitors are located throughout Napa County. Bale Grist Mill State Park, Las Posadas State Forest, Lake Berryessa, and the Napa County Regional Park adjacent to Lake Hennessey are a few of the available parks in Napa County. Adventist Health St. Helena Emergency Room, an emergency medical facility, is located in St Helena approximately 4 miles southeast of the Project Area.

4.15.2 Public Services (XV) Environmental Checklist and Discussion

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

Less than Significant Impact.

4.15.2.1 Fire Protection

No components of the Proposed Project would contribute to a substantial increase in visitation and the level of required public services is expected to remain unchanged. Any impact on services would be temporary and nothing in the Proposed Project scope would contribute to the need for an increase in the level of service ratios after construction is complete.

Integration of SPR HAZ-2 through HAZ-5, Wildfire Avoidance and Response would reduce the potential impact to fire protection services to a less than significant level.

4.15.2.2 Police Services

No additional demands on rangers or local police are expected as a result of the Proposed Project. There would be no impact with implementation of the Proposed Project.

4.15.2.3 Parks, Schools, or Other Public Facilities

There would be no impacts to schools, other parks, or other public facilities, as a result of the Proposed Project. There would be no impact with implementation of the Proposed Project.

4.15.3 Mitigation Measures/PSR/SPR

No significant impacts were identified and no MMs are required. SPRs HAZ-2 through HAZ-5 have been applied to further reduce impacts ensuring the impacts are less than significant.

SPR HAZ-2: Wildfire Avoidance and Response. Prior to the start of construction, the construction manager will develop a Fire Safety Plan for State Parks approval. The plan will include the emergency calling procedures for both CAL FIRE and local fire department(s).

SPR HAZ-3: Wildfire Avoidance and Response. State Parks personnel will have a State Park radio at the Project Area, which allows direct contact with CAL FIRE and a centralized dispatch center, to facilitate the rapid dispatch of control crews and equipment in case of a fire.

SPR HAZ-4: Wildfire Avoidance and Response. Under dry conditions, an available water resource or fire suppressant shall be onsite during activities with the potential to start a fire.

SPR HAZ-5: Wildfire Avoidance and Response. All heavy equipment will be required to include spark arrestors or turbo chargers (which eliminate sparks in exhaust) and have fire extinguishers onsite.

Construction crews shall park vehicles in an area without flammable materials, such as dry grass or brush. At the end of each workday, construction crews shall park heavy equipment over a non-combustible surface to reduce the chance of fire.

4.16 Recreation

4.16.1 Environmental Setting

Bothe- Napa Valley State Park is located in Napa County, just south of the City of Calistoga. State Parks' mission is to "provide for the health, inspiration, and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality outdoor recreation" (State Parks 2025).

The park offers camping, picnicking, swimming, and 10 miles of hiking trails that meander through coastal redwoods and madrone, Douglas fir, and tanoak forests. Picnic areas are located in the day-use area and are available for group events. The day-use area offers tables, sinks, electrical outlets, and Americans with Disabilities Act compliant restrooms. Located near the entrance is the visitor center and entrance station, which are open when staffing is available.

4.16.2 Recreation (XVI) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☒	☐

Less than Significant Impact.

The Proposed Project would include a new bridge crossing over Ritchey creek near the entrance to the park grounds. During construction, the bridge would be temporarily closed and access to the picnic area, yurts, and cottages will be closed. Visitors to the area would be restricted to the use of the visitor center and campground, may opt to visit an alternate park in the area. Implementation of the Proposed Project would make the park available once again. The Proposed Project is not expected to result in increased use of adjacent facilities to a level that would result in physical degradation of those facilities. Therefore, implementation of the Proposed Project would result in a less than significant impact to recreational facilities.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☐	☒

No Impact.

The Proposed Project would restore the creek bed of Ritchey Creek to a natural bottom and reconstruct the bridge crossing to accommodate for the absence of culverts. The day-use road is currently being used by park visitors, and the new road would function in the same capacity. Therefore, the Project would not require the construction or expansion of recreational facilities.

4.16.3 Mitigation Measures/PSR/SPR

No significant impacts were identified and no MMs are required. No SPRs or PSRs were identified for the Project.

4.17 Transportation

4.17.1 Environmental Setting

The Proposed Project is located within the boundaries of BNVSP, in the Napa Valley. BNVSP is accessed from Saint Helena Highway, which travels through Calistoga, to St Helena, and into the City of Napa. The Proposed Project is accessed by the main park entrance on the west side of Saint Helena Highway. There is minimal parking available at the visitor center. The Park's Day Use Road/Bothe State Park Road provides direct roadway access to the Project Area.

4.17.2 Transportation (XVII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐

Less than Significant Impact.

The Proposed Project is limited to improvements to the bridge crossing over Ritchey Creek within park boundaries. The Project does not include any improvements to Saint Helena Highway or existing vehicle turnouts along the highway right-of-way and would not add to the current circulation system within the Project Area. In addition, the Proposed Project does not involve changes in land use or affect transportation policies. Construction of the Proposed Project would result in a temporary increase in truck trips to deliver materials and machinery to the site. However, the temporary increase in trips from Project-related vehicles and trucks would not impact the load on or capacity of Saint Helena Highway. Therefore, implementation of the Proposed Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, and any impacts would be less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐

Less than Significant Impact.

Section 15064.3. of the CEQA Guidelines (Determining the Significance of Transportation Impacts) describes specific considerations for evaluating a project's transportation impacts. Generally, Vehicle Miles Traveled (VMT) is the most appropriate measure of transportation impacts. VMT refers to the amount and distance of automobile travel attributable to a project. Anticipated construction activities that would take place during Project construction may result in a temporary increase in VMT as a result of the movement

of construction personnel, equipment, and materials to and from the Proposed Project Area; however, these impacts are temporary in nature and will not substantially increase the existing VMT associated with BNVSP. As stated above, the Proposed Project is limited to improvements to the bridge crossing over Ritchey Creek and is not expected to create any increase to the existing number of daily/yearly visitors to the park and therefore would not increase VMT. Therefore, the impact is less than significant. No mitigation is required.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) 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 Proposed Project includes the reconstruction of a roadway bridge crossing located within the BNVSP (directly off Saint Helena Highway) and does not involve any significant improvements to the roadway, but rather the creek bed below. The objective of the Project is to remove two culverts and restore Ritchey Creek to a natural creek bottom to facilitate fish passage and spawning. Additionally, the site would not cause any incompatible uses with existing conditions. No impact would occur, and no mitigation is required.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Result in inadequate emergency access?	☐	☐	☒	☐

Less than Significant Impact.

Due to construction activities the existing emergency access to the area will not be available; however, an existing secondary emergency access, south of the project, will be available for use in the case of emergency or wildfire. The Proposed Project would change the location of emergency ingress/egress but would not result in a change in the availability of emergency access nor would it create demand for additional points of emergency access (that do not already currently exist). Therefore, a significant impact would not occur and no mitigation is required.

4.17.3 Mitigation Measures/PSR/SPR

No significant impacts were identified and no MMs are required. No SPRs or PSRs were identified for the Project.

4.18 Tribal Cultural Resources

This section of this Draft IS/MND describes the existing environment and regulatory framework necessary to evaluate potential impacts on TCRs from the Project, and potential Project-specific and cumulative impacts on TCRs that could result from the Project. A TCR is a site, feature, place, or 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.

The following section is analysis of the potential environmental impacts related to TCRs is derived primarily from the following sources:

- California NAHC Sacred Lands File Search, January 3, 2019
- Archaeological Presence/Absence Testing for the Bothe-Napa Valley Day Use Bridge Replacement, Bothe-Napa Valley State Park, Napa County, California (Wohlgemuth and Kuypers 2023)
- Ethnographic overviews of the Wappo (Wohlgemuth and Kuypers 2023)
- Confidential tribal consultation record under State Parks tribal consultation policy and Assembly Bill (AB) 52

The information provided below is an abridged version of the Archaeological Presence/Absence Testing for the Bothe-Napa Valley Day Use Bridge Replacement, Bothe-Napa Valley State Park (Wohlgemuth and Kuypers 2023) and is included here to provide a brief context of the potential cultural resources in the Project Area. Due to the sensitive nature of cultural resources and their records and documentation, which are restricted from public distribution by State and federal law, this Draft IS/MND's appendices do not include the cultural resources report; however, all pertinent information that is necessary for impact determinations is included in this section. A redacted version of the cultural resources report that does not include site records or locations may be obtained by contacting the State Parks Bay Area District.

4.18.1 Environmental Setting

4.18.1.1 Ethnographic History

The following ethnographic history is excerpted from Wohlgemuth and Kuypers (2023).

Ethnolinguistic data place the Project Area within the territory of the Wappo, who at the time of Euro-American contact populated lands within the Napa Valley as well as adjacent areas in the Russian River and Putah Creek drainages. Although the Wappo language is one of four identified within the Yukian linguistic family, its speakers were geographically separated from the three northern groups of Yukian speakers (Yuki, Coast Yuki, and Huchnom). At the time of contact, they occupied lands from the modern city of Napa north to the foot of Cobb Mountain, with a small enclave situated on the southern end of Clear Lake. Patwin speakers occupied lands to the south and southeast, with the Pomo holding lands to the north and west, surrounding the Wappo at Clear Lake. The Coast Miwok lands abutted Wappo territory at the extreme southwest, and Lake Miwok territories lay to the north and east.

Wohlgemuth and Kuypers (2023) identify the Mayacma Wappo tribelet in the vicinity of Calistoga, with the village of Mayacma thought to be in the foothills south of Calistoga, west of the river. Ethnographic works on the Wappo offer an array of often conflicting information on Native American tribelet locations, language boundaries, and lifeways. Some of what is reported comes from biased and poorly documented historical records and a handful of Native American informants somewhat removed from their original way of life. There is also the common practice of applying cultural traits (e.g., socio-political structure) from one linguistic group to other nearby groups, based solely on proximity. Wohlgemuth and Kuypers (2023) study of mission records has provided information on patterns of inter-marriage, languages, and village locations. Results of this research suggest that many of the territorial boundaries and village locations (i.e., in Clear Lake) are a post-contact manifestation. The various syntheses attempt to sort out these data, but still offer only general statements about the Wappo of the Napa Valley. Surprisingly, little is documented for Wappo obsidian use. Wohlgemuth and Kuypers (2023) describe obsidian acquisition and production for the Alexander Valley people, some 15 miles northwest of the quarries: "Flint nodules got at St. Helena, carried home whole, worked there. Such trips [were] not necessarily tribal affairs. [The] Chief did not always go, but expeditions could not be made without his permission." From this statement it appears that obsidian access was not unrestricted but was, to some extent, controlled by chiefs in villages at some distance from the primary quarries. Under this system, obsidian stone working would not be concentrated at quarry locations; instead, a full range of activities, from initial reduction of cobbles to finished artifacts, seems to have taken place at distant off-quarry village communities. In a census of the Alexander Valley village of *Unutsawaholma*, arrowhead-making was restricted to only three of 38 males. The only other mention of obsidian use among the Wappo is that an arrowhead was worth 100 clamshell disk beads, while a large spear point was worth 1,500 to 2,000 beads. Wohlgemuth and Kuypers (2023) note that these values were probably too high but reported them for their relative value compared to prices of other native commodities.

4.18.2 Regulatory Setting

Relevant federal, State, and local laws and regulations pertaining to cultural resources are discussed below.

4.18.2.1 Federal

National Historic Preservation Act

The NHPA requires the federal government to list significant historic resources on the NRHP, which is the nation's master inventory of known historic resources. The NRHP is administered by the NPS and includes listings of buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or traditional cultural significance at the national, state, or local level. The act defines the responsibilities of federal agencies to protect and preserve historic properties that are found eligible for or listed in the NRHP. Sections 106 and 110 of the NHPA include specific provisions for the identification and evaluation of these properties for inclusion in the NRHP, such as consulting with interested parties that often include local Native American tribes.

Amendments to the NRHP and its implementing regulations in 1992 expanded federal responsibilities under NHPA Section 106 for consultations with interested parties, and especially Native American tribes. The result has been a more focused effort by federal agencies to involve interested parties in identifying historic properties of cultural significance and, if warranted, in considering effects that may result from a federal undertaking. Traditional Cultural Properties (TCPs) are more often identified as resources during these consultation efforts.

Structures, sites, buildings, districts, and objects over 50 years of age can be listed in the NRHP as significant historic resources. However, properties under 50 years of age that are of exceptional importance or are contributors to a historic district can also be included in the NRHP.

The criteria for listing in the NRHP include resources that:

a) are associated with events that have made a significant contribution to the broad patterns of history;

b) are associated with the lives of persons significant in our past;

c) embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

d) have yielded or may likely yield information important in prehistory or history.

Additionally, the NRHP guidelines describe a type of cultural significance for which properties may be eligible for inclusion in the NRHP. A property with traditional cultural significance will be found eligible for the NRHP because it is associated with cultural practices or beliefs of a living community that:

a) are rooted in that community's history; and

b) are important in maintaining the continuity of the cultural identity of the community.

This type of significance is grounded in the cultural patterns of thought and behavior of a living community and refers specifically to the association between their cultural traditions and a historic property. In 1990, National Register Bulletin 38 presented guidelines for evaluating traditional cultural significance as a kind of cultural significance for which historic properties can be found eligible for inclusion in the NRHP using established criteria. The process for considering TCPs is situated within the framework of the NRHP as the preservation of tangible cultural properties that have historical and ongoing significance to living communities, as evidenced in their traditional cultural practices, values, beliefs, and identity.

4.18.2.2 State

Assembly Bill 52

In 2015, AB 52 amended CEQA to require that: 1) a lead agency provide notice to those California Native American tribes that requested notice of projects proposed by the lead agency; and 2) for any tribe that responded to the notice within 30 days of receipt with a request for consultation, the lead agency must

consult with the tribe. Topics that may be addressed during consultation include TCRs, the potential significance of project impacts, the type of environmental document that should be prepared, and possible MMs and project alternatives.

Pursuant to AB 52, Section 21073 of the PRC defines California Native American tribes as "a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of the Statutes of 2004." This includes both federally and non-federally recognized tribes.

Section 21074(a) of the PRC defines TCRs for the purpose of CEQA as:

1) Sites, features, places, cultural landscapes (geographically defined in terms of the size and scope), sacred places, and objects with cultural value to a California Native American tribe that are any of the following:

    a) included or determined to be eligible for inclusion in the CRHR; and/or

    b) included in a local register of historical resources as defined in subdivision (k) of Section 5020.1; and/or

    c) 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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

Because criteria a and b also meet the definition of a Historical Resource under CEQA, a TCR may also require additional consideration as a Historical Resource. TCRs may or may not exhibit archaeological, cultural, or physical indicators.

Recognizing that California tribes are experts in their TCRs and heritage, AB 52 requires CEQA lead agencies to provide tribes that requested notification an opportunity to consult at the commencement of the CEQA process to identify TCRs. Furthermore, because a significant effect on a TCR is considered a significant impact under CEQA, consultation is used to develop appropriate avoidance, impact minimization, and MMs.

In accordance with Section 21082.3(c)(1) of the PRC:

> … information, including, but not limited to, the location, description, and use of the tribal cultural resources, that is submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with subdivision (r) of Section 6254 of, and Section 6254.10 of, the Government Code, and subdivision (d) of Section 15120 of Title 14 of the CCR, without the prior consent of the tribe that provided the information.

Therefore, the details of tribal consultation summarized herein are provided in a confidential administrative record and are not available for public disclosure without written permission from the tribes.

4.18.3 Thresholds of Significance

Based on the CEQA Guidelines Appendix G: Items XVII (a) and (b), TCR impacts are considered to be significant if a project would cause a substantial adverse change in the significance of a TCR, defined in PRC Section 21074. The CEQA lead agency makes this determination based on the expert opinion of culturally affiliated consulting tribes.

4.18.4 Methods of Analysis

4.18.4.1 Summary of Assembly Bill 52 Tribal Consultation

On March 27, 2024, State Parks sent out letters providing an opportunity to consult under AB 52. The notifications included information about the Proposed Project, the agency contact information, and requested a response within 30 days regarding the tribe's desire to consult on the Project. The letters were sent to the following tribes:

- Sally Peterson, Middletown Rancheria Tribal Historic Preservation Officer
- Jose Simon III, Chairperson for the Middletown Rancheria
- Scott Galbadon, Chairperson for the Mishewal-Wappo Tribe of Alexander Valley

The 30-day response window concluded on April 27, 2024.

A request for a sacred lands file search and contact information for appropriate tribal representatives was sent to the NAHC on March 18, 2024. A response was received from the NAHC on March 19, 2024. A search of the sacred lands file returned a negative result. A review of the contact information provided revealed an additional representative for the Mishewal-Wappo Tribe of Alexander Valley. On March 27, 2024, State Parks sent a letter to Christi Gabaldon, Tribal Monitor. The 30-day response window concluded on April 27, 2024.

State Parks received a response from Scott Gabaldon of the Mishewal-Wappo Tribe of Alexander Valley requesting government-to-government consultation. State Parks responded and arranged for a meeting at the Project Area on June 24, 2024. State Parks provided an overview of the Project and discussed the MMs they had established. Chairperson Galbadon provided information that indicates the Project could have a significant effect on a TCR. Resource P-28-62/CA-NAP-58/H meets the criteria to be considered a TCR under Section 21074(a). State Parks considers tribal consultation complete under Section 21083.1(d).

The Middletown Rancheria did not respond to the letter within the required timeframe. State Parks considers consultation with Middletown Rancheria concluded pursuant to PRC Section 21082.3(d)(3).

4.18.4.2 Tribal Cultural Resources

Information about potential impacts to TCRs was drawn from: 1) information on archaeological site records obtained from surveys of the Project Area and the California Historical Resource Information System; and 2) the tribal consultation record under AB 52 and the State Parks tribal consultation policy for the Project.

Impact Discussion

The Mishewal-Wappo Tribe of Alexander Valley, a culturally affiliated tribe, has provided information that indicates the Project could have a significant effect on TCRs that may be unearthed during ground disturbing activities; this would be considered a significant impact. Therefore, MMs are required to reduce the impact to the TCR to less than significant.

4.18.5 Project Impacts

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) 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:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	☐	☒	☐	☐
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code 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.

The Project would have a significant impact on TCR P-28-62/CA-NAP-58/H if it were to result in a substantial adverse change by way of physical demolition, destruction, relocation, or alteration of TCRs discovered during ground disturbing activities. As discussed in the *Archaeological Presence/Absence Testing for the Bothe-Napa Valley Day Use Bridge Replacement, Bothe-Napa Valley State Park* (Wohlgemuth and Kuypers 2023), the possibility exists that TCRs could be inadvertently excavated during bridge removal. In addition, according to the review of maps and records, the proximity of the Project Area to major water resources, AB 52 consultation with the Wappo, and the fact that buried pre-contact resources are known to exist within the Project Area, indicate a high potential for the presence of

previously undiscovered buried pre-contact cultural deposits at the Project Area, including additional potential TCRs. The presence of alluvium in and around the Project Area further suggests that there remains a potential for deeply buried pre-contact resources to be uncovered during ground-disturbing activities. Without mitigation, impacts to P-28-62/CA-NAP-58/H and those associated with inadvertent discovery of TCRs would be adverse and significant.

This Draft IS/MND concludes that a TCR is present; therefore, implementation of MMs TCR-1 and CUL-2, as well as SPR TCR-1 and SPR TCR-2 is required to ensure the proper treatment of any inadvertently discovered TCRs.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) result in a considerable contribution to cumulative impacts on TCRs?	☐	☒	☐	☐

Less than Significant Impact with Mitigation Incorporated.

Other known upcoming projects within the vicinity of the Proposed Project are identified below. The Napa Valley Transportation Authority proposes to construct a new bike trail from St. Helena to Calistoga. The trail would be approximately 6.8 miles in length, would be located within Caltrans Right-of-Way, and would pass through State Park Lands and private property easements. The trail would pass through the approximate center of P-28-62/CA-NAP-58/H, along Bothe-State Park Road.

Development of the Proposed Project in combination with other projects that are located within Bothe-Napa Valley State Park would increase the potential for impacts to known and previously unknown archaeological resources and could contribute to the loss of such resources in California. All future projects would be required to follow existing State and federal law or other agency regulations and policies. However, projects that do not require discretionary approval may not be subject to the same level of evaluation and thus may result in impacts to TCRs. Therefore, cumulative impacts from the Proposed Project, along with adjacent development, would be significant. However, development within the vicinity would be subject to MMs, which would reduce some of the Project's potential impacts on previously unknown TCRs and human remains to less than significant. Consequently, the incremental effects of the Proposed Project, after mitigation, would not be cumulatively considerable with respect to previously unknown TCRs and human remains. With the implementation of MM TCR-1, CUL-2, and CUL-3 the Project's potentially significant impacts on TCRs present would not be a cumulatively significant contribution to such impacts regionally.

4.18.6 Mitigation Measures/PSR/SPR

TCR-1: **Tribal Monitoring.** A qualified archaeologist will provide monitoring during all ground disturbing construction activities. Additionally, a tribal monitor will be invited to provide monitoring during ground disturbing construction activities. The tribal monitor shall have the authority to temporarily pause ground disturbance within 50 feet of the discovery for a duration long enough to examine potential TCRs that may become unearthed during the

activity. If no TCRs are identified, then construction activities shall proceed and no agency notifications are required. In the event that a TCR is identified, the monitor shall flag off the discovery location and notify State Parks immediately to consult on appropriate and respectful treatment. The State Parks shall also serve to mediate any conflicts between the tribe and Project proponent during work stoppages. Upon conclusion of the monitoring, the monitor shall submit a letter report to the State Paks to document the monitoring methods and results.

CUL-2: **Use of Rubber Mats.** Rubber mats will be laid on the soil along the path that will be used by construction vehicles and heavy equipment. The mats will be laid prior to any ground disturbing work.

CUL-4: **Cultural Awareness Training.** All workers, regardless of location, shall receive worker awareness cultural resources sensitivity training prior to construction. The training program should be developed by an archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards for archaeology and include relevant information regarding sensitive cultural resources and TCRs, as well as the applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The training program should also describe appropriate avoidance and impact minimization measures for cultural resources and TCRs that may be located at Project locations and provide guidance on the procedures to follow if any cultural resources or tribal resources are encountered.

The following SPRs and PSRs have been included into the Project to further ensure that impacts remain at a less than significant level:

SPR TCR-1: **Inadvertent Discovery.** If any subsurface deposits are encountered during ground disturbing activities that are believed to be cultural or human in origin, all work shall cease within 100 feet of the find or an agreed upon distance based on the Project Area and nature of the find. A qualified professional archaeologist who meets the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology shall be retained to evaluate the significance of the find and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:

- If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately and no agency notifications are required.
- If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, the archaeologist shall immediately notify the lead agencies. The agencies shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined by CEQA, or a Historic Property under NHPA Section 106, if applicable. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the resource either: 1) is

not a Historical Resource under CEQA or a Historic Property under NHPA Section 106; or 2) that the treatment measures have been completed to their satisfaction.

If the find is pre-contact in nature, a tribal representative from a Native American tribe that is traditionally and culturally affiliated with a geographic area shall be immediately notified. In this case, Mitigation Measure TCR-1 shall be followed.

SPR TCR-2: **Human Remains.** Human Remains. In the event of a discovery of human remains, whether intact, fragmentary, or displaced from their original context, the Napa County Coroner and the NAHC, Napa County (707-253-4256), shall be notified of the discovery immediately, and all work in the vicinity of the find shall cease, as determined by the State Parks archaeologist. There shall be no further excavation or disturbance of the find site or any nearby area reasonably suspected to overlie adjacent remains until the Napa County has determined whether the remains are those of a Native American. If the remains are determined to be Native American, the coroner must contact the California NAHC. PRC Section §5097.98 specifies the procedures to be followed in the event of a discovery of human remains on non-federal land. The disposition of Native American burials is within the jurisdiction of the NAHC. Upon request, the NAHC will provide the Project director with a list of MLDs, who will specify treatment and disposition of any Native American remains found within the area of potential effect of the Project. Final disposition of the human remains is subject to approval of the landowner. Human remains and associated grave goods are protected under PRC § 5097.94 and Health and Safety Code § 7050.5.

4.19 Utilities and Service Systems

4.19.1 Environmental Setting

There is presently no potable water, wastewater, or electrical services within the Project Area. There are portable restrooms available on the Soberanes Point Trail.

4.19.2 Utilities and Service Systems (XIX) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

No Impact.

The Proposed Project would not require new use, construction, or relocation of the following facilities: water, wastewater, stormwater drainage, electrical power, natural gas, or telecommunications. During

construction, the existing diversion will be temporarily impacted, but will be returned to current conditions once construction is complete. Therefore, the Project will have no impact on these services/facilities. No mitigation is required.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒

No Impact.

No potable water is presently provided within the Project Area and the project itself does not require a water supply. No impact would occur, and no mitigation is required.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

No Impact.

There is presently no potable water, wastewater, or electrical services within the Project Area and the project does not require water supply. Implementation of the Proposed Project would not generate demand for wastewater services, nor would the Project substantially increase utility or public service use. No impact would occur, and no mitigation is required.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	☒

No Impact.

The Proposed Project does not have a solid waste component and would not increase solid waste disposal needs for the area. Trucks provided by State Parks and/or its Contractor would remove debris from Project-related activities. No impact would occur, and no mitigation is required.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

No Impact.

There is presently no potable water, wastewater, or electrical services within the Project Area and the project will not require water supply. The Proposed Project will comply with all federal, state, and local management and reduction statutes and regulations related to solid waste. No impact would occur, and no mitigation is required.

4.19.3 Mitigation Measures/PSR/SPR

No significant impacts were identified and no MMs are required. No SPRs or PSRs were identified for the Project.

4.20 Wildfire

4.20.1 Environmental Setting

Typically, the California fire season extends from spring to late fall. Oxygen, heat, and fuel are frequently referred to as the *fire triangle*. CAL FIRE provides wildland fire protection services on private, non-federal lands for the purpose of life, property, and resource protection. BNVSP is located within the SRA.

4.20.2 Wildfire (XX) Environmental Checklist and Discussion

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐

Less than Significant Impact.

The Proposed Project Area is located in an isolated location away from urbanized areas or private structures within a very high fire hazard severity zone in an SRA. Work will be within areas that are within the riparian corridor along Ritchey Creek and exhibit thick vegetation. Construction equipment, such as the excavators and dozers, for example, could become hot with extended use and would be in close proximity to flammable vegetation (under dry conditions). Improperly outfitted exhaust systems or friction between metal parts and rocks could cause sparks. Under dry conditions, which frequently occur in California, any sparks could ignite vegetation and cause a fire. Integration of SPR HAZ-2 through HAZ-5 Wildfire Avoidance and Response would ensure that impacts related to wildfire remain less than significant.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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.

As described above, the Proposed Project is located within a high fire hazard severity zone in the SRA. The Proposed Project is not located on a slope, and implementation SPR HAZ-2 through HAZ-5 Wildfire Avoidance and Response would ensure that impacts would be less than significant. No mitigation is required.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☒	☐

Less than Significant Impact.

See discussion above. The Proposed Project is a replacement/reconstruction in nature, so no new infrastructure is proposed that would exacerbate existing fire risk or result in temporary or ongoing impacts. The maintenance of the Proposed Project Area would be similar to existing conditions and impacts would be less than significant.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☒	☐

Less than Significant Impact.

As stated above, although the Proposed Project is located in an SRA classified as very high fire hazard, it would not create a new source of exposure for people or structures to significant risks including flooding

or landslides as a result of runoff, or post-fire slope instability. The Project would slightly change the drainage by improving follow in this area. Therefore, the impact is considered less than significant. No mitigation is required.

4.20.3 Mitigation Measures/PSR/SPR

No significant impacts were identified, and no MMs are required. SPR HAZ-2 through SPR HAZ-5 have been applied to the Project to further reduce impacts to a less than significant level.

SPR HAZ-2: Wildfire Avoidance and Response. Prior to the start of construction, the construction manager will develop a Fire Safety Plan for State Parks approval. The plan will include the emergency calling procedures for both CAL FIRE and local fire department(s).

SPR HAZ-3: Wildfire Avoidance and Response. State Parks personnel will have a State Park radio at the Project Area, which allows direct contact with CAL FIRE and a centralized dispatch center, to facilitate the rapid dispatch of control crews and equipment in case of a fire.

SPR HAZ-4: Wildfire Avoidance and Response. Under dry conditions, an available water resource or fire suppressant shall be onsite during activities with the potential to start a fire.

SPR HAZ-5: Wildfire Avoidance and Response. All heavy equipment will be required to include spark arrestors or turbo chargers (which eliminate sparks in exhaust) and have fire extinguishers onsite.

Construction crews shall park vehicles in an area without flammable materials, such as dry grass or brush. At the end of each workday, construction crews shall park heavy equipment over a non-combustible surface to reduce the chance of fire.

4.21 Mandatory Findings of Significance

4.21.1 Mandatory Findings of Significance (XXI) Environmental Checklist and Discussion

Does the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐

Less than Significant Impact.

The Proposed Project was evaluated for potential significant adverse impacts to the natural environment. The Project Area supports certain special-status animal species and natural communities. State Parks has determined that the Proposed Project would have the potential to degrade the quality of the habitat and/or reduce the number or restrict the range of rare or endangered animals. The Project also would have the potential to degrade water quality by causing erosion, sedimentation, and release of pollutants, such as vehicle fluids and elevated metal concentrations into the environment. In addition, the site is rich with examples of California history and prehistory and the Project has been designed to avoid these resources. However, full integration of all Project requirements (listed in sections above as well as in Chapter 5) into this Project would reduce those impacts, both individually and cumulatively, to a less than significant level.

Does the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Have impacts that are individually limited, but cumulatively considerable? (*Cumulatively considerable* means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐

Less than Significant Impact.

The Proposed Project has been designed to minimize or avoid impacts to known resources and will not further contribute to cumulatively considerable impacts. The Project includes the removal of the two 60-inch culverts under the Day Use Road/Bothe State Park Road, replacement of the current road crossing with a free-span structure designed to accommodate appropriate vehicle weight and capacity for the park visitors, and restoration of the stream corridor to improve fish passage by constructing a natural material stream bed at natural grade through the restored reach of Ritchey Creek. Therefore, the Proposed Project actions will not have impact that are considered cumulatively considerable when combined with other projects within the area in relation to existing conditions.

Does the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Less than Significant Impact.

Most Project-related environmental effects have been determined to pose a less than significant impact on humans. However, possible impacts from fugitive dust (Air Quality), construction accidents, spills, and wildfire (Hazards and Hazardous Waste), and construction-generated noise (Noise), though temporary in

nature, have the potential to result in significant adverse effects on humans. These potential impacts would remain at less than significant levels if all Project requirements are fully integrated into this Project.

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LIST OF APPENDICES

Appendix A – Air Quality and Greenhouse Gas Report
ECORP Consulting, Inc. April 2024

Appendix B – *Biological Resources Assessment for the Ritchey Creek Day-Use Road Culvert Replacement Project*
ECORP Consulting, Inc. DRAFT

Appendix C – *Special-Status Plant Survey Report for the Ritchey Creek Day-Use Road Culvert Replacement Project*
ECORP Consulting, Inc. September 27, 2023

Appendix D –*Aquatic Resources Delineation Report, Culvert Replacement Project, Bothe Napa Valley State Park, Napa County, California*
Nomad Ecology, May 2021

Appendix E – *Archaeological Presence/Absence Testing for the Bothe-Napa Valley Day Use Bridge Replacement*. **CONFIDENTIAL REPORT** –
Not included in the public review draft.

Appendix F – Emissions Modeling Outputs,
ECORP Consulting, Inc. 2024

Appendix G – Roadway Construction Noise Model
ECORP Consulting, Inc., April 2024

Appendix H – Plan Sheets

Appendices Available upon Request