INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

PACIFIC GAS AND ELECTRIC COMPANY L-021A NAPA RIVER PIPELINE CROSSING REPLACEMENT PROJECT

STATE CLEARINGHOUSE NO. 2023080342

October 2023

Lead Agency:
California State Lands Commission
100 Howe Avenue, Suite 100 South
Sacramento, CA 95825

Applicant:
Pacific Gas and Electric Company
5555 Florin-Perkins Road
Sacramento, California 95826

MISSION STATEMENT

The California State Lands Commission provides the people of California with effective stewardship of the lands, waterways, and resources entrusted to its care based on the principles of equity, sustainability, and resiliency, through preservation, restoration, enhancement, responsible economic development, and the promotion of public access.

CEQA DOCUMENT WEBSITE

www.slc.ca.gov/ceqa/

Geographic Location (L-021A Napa River Pipeline Crossing)

Latitude: 38°14'23.68"N
Longitude: 122°17'12.06"W
NAD83 Datum

Cover Photo: North View of Napa River towards Proposed Pipeline Replacement Alignment
(Photo courtesy of Padre Associates, Inc.)

Prepared by Padre Associates, Inc.

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

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LIST OF ABBREVIATIONS AND ACRONYMS

	§, §§	Section, Sections
	°F	degrees Fahrenheit
A	AB	Assembly Bill
	ACM	asbestos-containing material
	ADO	Airports District Office
	APM	Applicant Proposed Measure
	AR	Agricultural Resource
B	BAAQMD	Bay Area Air Quality Management District
	BAHCP	Bay Area Habitat Conservation Plan
	BIOS	Biographic Information and Observation System
	BMP	Best Management Practice
C	CAAQS	California Ambient Air Quality Standards
	CalEnviroScreen	California Communities Environmental Health Screening Tool
	Cal/OSHA	California's Occupational Safety and Health Administration
	Caltrans	California Department of Transportation
	CARB	California Air Resources Board
	CBIA	California Building Industry Association v. Bay Area Air Quality Management District (2015) 62 Cal.4th 369, 386
	CCAA	California Clean Air Act
	CDC	California Department of Conservation
	CDFW	California Department of Fish and Wildlife
	CEQA	California Environmental Quality Act
	Cfm	Cubic feet per minute
	CGS	California Geologic Survey
	CH_4	methane
	CNDDB	California Natural Diversity Database
	CNEL	community noise equivalent level
	CNG	Compressed Natural Gas
	CO	carbon monoxide
	CO_2	carbon dioxide
	CO_2E	carbon dioxide equivalents
	Commission	California State Lands Commission
	Creek	Suscol Creek
	CRHR	Cultural Register of Historical Resources
	CRPR	California Rare Plant Rank
	CRS	Cultural Resource Specialist
	CSLC	California State Lands Commission
	CWA	Clean Water Act
D	dB	decibels

	DESPM	Division of Environmental Science, Planning, and Management
	DPM	Diesel particulate matter
	DPS	Distinct Population Segment
	DTSC	Department of Toxic Substances Control
	DWR	Department of Water Resources
E	EIR	Environmental Impact Report
	EMFAC	CARB'S Emmissions Factor
	ESA	Environmentally Sensitive Area
F	FAA	Federal Aviation Administration
	FESA	Federal Endangered Species Act
	FR	Federal Register
	FT	feet
	FT^2	square feet
G	GHG	Greenhouse Gas
	GI	General Industrial
	GIS	Geographic Information System
H	HCP	Habitat Conservation Plan
	HDD	horizontal directional drilling
	H_2S	hydrogen sulfide
K	kW	kilowatt
L	LOS	Level of Service
	LUST	leaking underground storage tank
M	MATES IV	Multiple Air Toxics Exposure Study in the South Coast Air Basin
	MBTA	Migratory Bird Treaty Act
	mg/m^3	micrograms/cubic meter
	MM	mitigation measure
	MND	Mitigated Negative Declaration
	MRZ	Mineral Resource Zone
N	NAAQS	National Ambient Air Quality Standards
	NAHC	Native American Heritage Commission
	NapaSan	Napa Sanitation District
	NMFS	National Marine Fisheries Service
	NO	nitric oxide
	NO_2	nitrogen dioxide
	NO_x	nitrogen oxides
	NOI	Notice of Intent
	N_2O	nitrous oxide
	NPDES	National Pollutant Discharge Elimination System
	NTSB	National Transportation Safety Board
	NTU	Nephelometric Turbidity Units
	NWIC	Northwest Information Center
O	O_3	ozone

	OEHHA	Office of Environmental Health Hazard Assessment
	OPR	Office of Planning and Research
P	PG&E	Pacific Gas and Electric
	PL	Public Lands
	PM	particulate matter
	PM_{10}	particulate matter less than 10 micrometers
	$PM_{2.5}$	particulate matter less than 2.5 micrometers
	POTW	Publicly Owned Treatment Works
	ppm	parts per million
	PPV	peak particle velocity
	PWSP	Project Work and Safety Plan
R	ROC	reactive organic compounds
	ROV	remotely operated vehicle
	RWQCB	Regional Water Quality Control Board
S	SB	Senate Bill
	SFBRWQCB	San Francisco Bay Regional Water Quality Control Board
	SHPO	State Historic Preservation Officer
	SMHM	salt marsh harvest mouse
	SO_2	sulfur dioxide
	SWPPP	Stormwater Pollution Prevention Plan
	SWRCB	State Water Resources Control Board
T	TAC	toxic air contaminants
	TMDL	Total Maximum Daily Loads
	TPH	total petroleum hydrocarbon
U	USACE	U. S. Army Corps of Engineers
	UPRR	Union Pacific Railroad
	USEPA	U.S. Environmental Protection Agency
	USFWS	U.S. Fish and Wildlife Service
V	VMT	Vehicle Miles Traveled

EXECUTIVE SUMMARY

This Initial Study/Mitigated Negative Declaration (MND) has been prepared by the California State Lands Commission (CSLC), as lead agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.), to analyze and disclose the environmental effects associated with the proposed Pacific Gas and Electric Company (PG&E) L-021A[1] Napa River Pipeline Crossing Replacement Project (Project). The Project would authorize PG&E (Applicant) to replace three existing, 8-inch-diameter pipelines (L-021A, L-021 A-1, and L-021A-2) with a new 26-inch-diameter pipeline under the Napa River during Phase 1. During Phase 2, PG&E would remove the existing pipelines under the Napa River (CSLC lease PRC 5438) and decommissioning in place the pipeline in the adjacent upland areas (outside of CSLC jurisdiction).

The CSLC prepared an MND because it determined that, while the Initial Study identifies potentially significant impacts related to the Project, mitigation measures (MMs) incorporated into the Project proposal and agreed to by PG&E will avoid or mitigate those impacts to a point where no significant impacts occur.

PROPOSED PROJECT

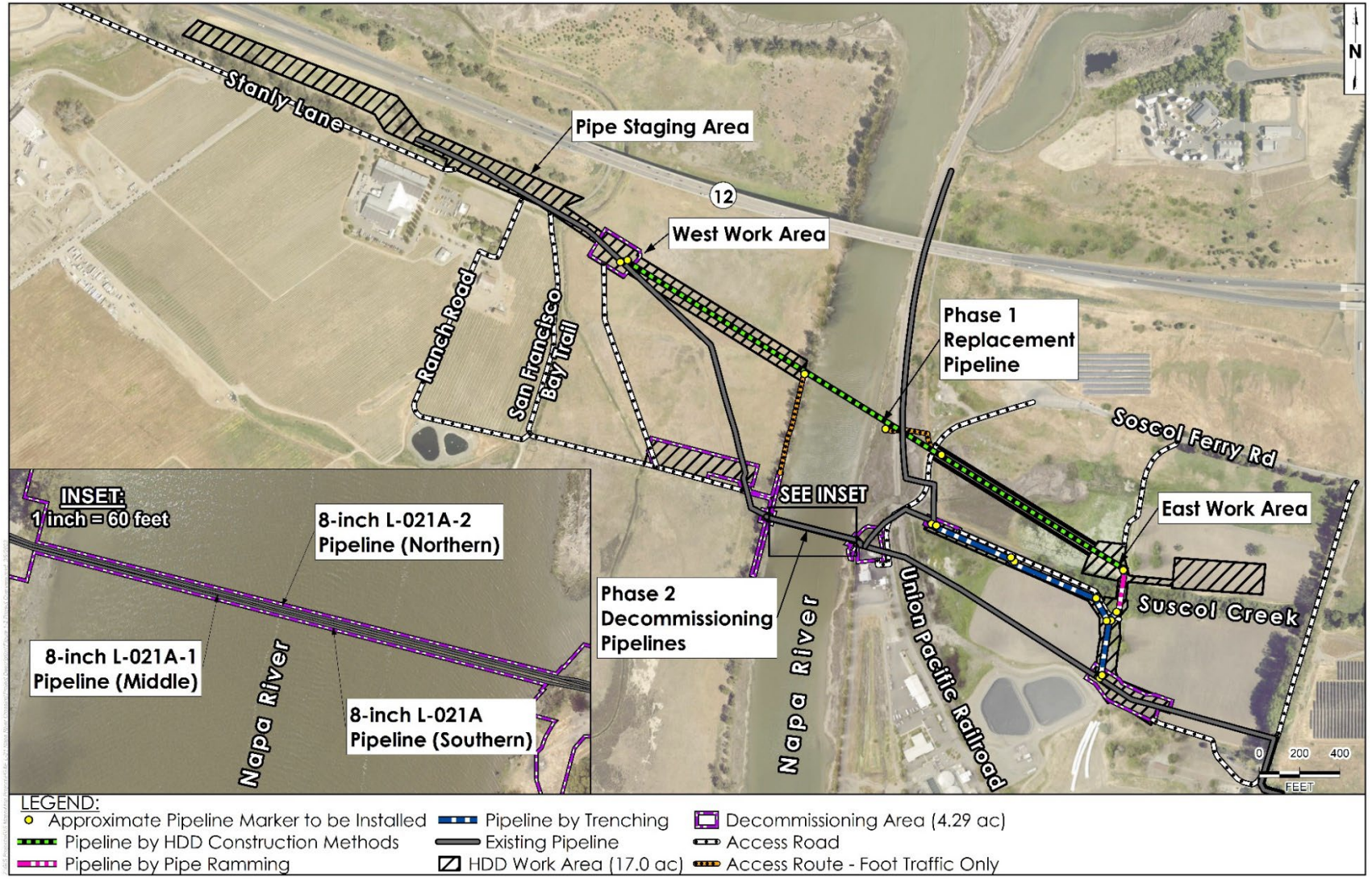
The Project area is located near the city of Napa, Napa County, California (Figure ES-1). State Highway 12 is to the north of the Project area, and the Napa Sanitation District (NapaSan) facilities are to the south and east of the Project area. The California Department of Fish and Wildlife's (CDFW) Napa-Sonoma Marshes Wildlife Area[2] and California Department of Transportation (Caltrans) right-of-way along Highway 12 are to the west of the Project area.

The proposed Project would be conducted in two distinct phases. The Project's Phase 1 would be to replace the existing 8-inch-diameter L-021A pipelines (L-021A, L-021 A-1, and L-021 A-2) under the River with a replacement pipeline using the Horizontal Directional Drilling (HDD) method just north of and parallel to the existing pipeline crossing location (Figure ES-2). The replacement pipeline would be a single 26-inch-diameter pipeline connected (tied-in) to the existing terrestrial pipeline network on each side of the River.

[1] L-021A is the name of the natural gas pipeline alignment.
[2] Please see https://wildlife.ca.gov/Lands/Places-to-Visit/Napa-Sonoma-Marshes-WA for details.

Figure ES-1. Project Vicinity

Figure ES-2. Project Phases 1 and 2 Overview



Phase 2 of the Project would include subsequent decommissioning of five separate segments of the existing L-021A River pipeline, after the pipeline has been disconnected from the gas pipeline network. The existing L-021A pipeline is a 26-inch-diameter buried pipeline that transitions into a 12-inch-diameter pipeline within its western terrestrial alignment and then branches into three parallel, 8-inch-diameter pipelines buried under the riverbed. The three parallel pipelines (L-021A, L-021A-1, and L-021A-2) run underneath the River and then merge back into a single 12-inch-diameter pipeline on the east bank of the River. Certain segments of the existing L-021A pipeline would be fully removed while other segments would be filled with cement slurry, capped on both ends, and left in place.

Pipeline replacement, decommissioning, and removal activities would result in the temporary disturbance of 17.0 acres during pipeline replacement activities (Phase 1) of the Project and the disturbance of 4.29 acres during decommissioning activities (Phase 2) of the Project, for a total temporary disturbance footprint of approximately 17.9 acres combined and accounting for the overlap between the Phase 1 and Phase 2 work areas. Within this temporary disturbance area, a total excavation footprint of approximately 0.41 acre would occur: 0.18 acre of excavation associated with Phase 1 and 0.23 acre of excavation associated with Phase 2.

PHASE 1 OF WORK: REPLACEMENT PIPELINE INSTALLATION

Phase 1 consists of the installation of a 26-inch-diameter pipeline under the River using HDD, pipe ramming, and tie-in with open trench methods. The total length of the replacement pipeline measures approximately 4,561 feet, including the 2,800-foot HDD segment. Following completion of the borehole and reaming of the pipeline alignment, the newly fabricated 26-inch-diameter pipeline string would be pulled into the borehole from the West Work Area to the East Work Area. The pipe ramming method would be used to install a 91-foot-long section of the 26-inch-diameter pipeline under Suscol Creek to avoid impacts to the waterway. The replacement pipeline would then be tied into the existing terrestrial pipeline network with sections of pipe installed in open trench connections. Once the replacement pipeline is tied into the pipeline network, odor fade conditioning[3] would be conducted as a standard safety procedure,

[3] Odor fade conditioning consists of conditioning a new pipeline to ensure the natural gas has safe levels of odorant (rotten egg smell) as it travels through the new pipeline and into the existing system.

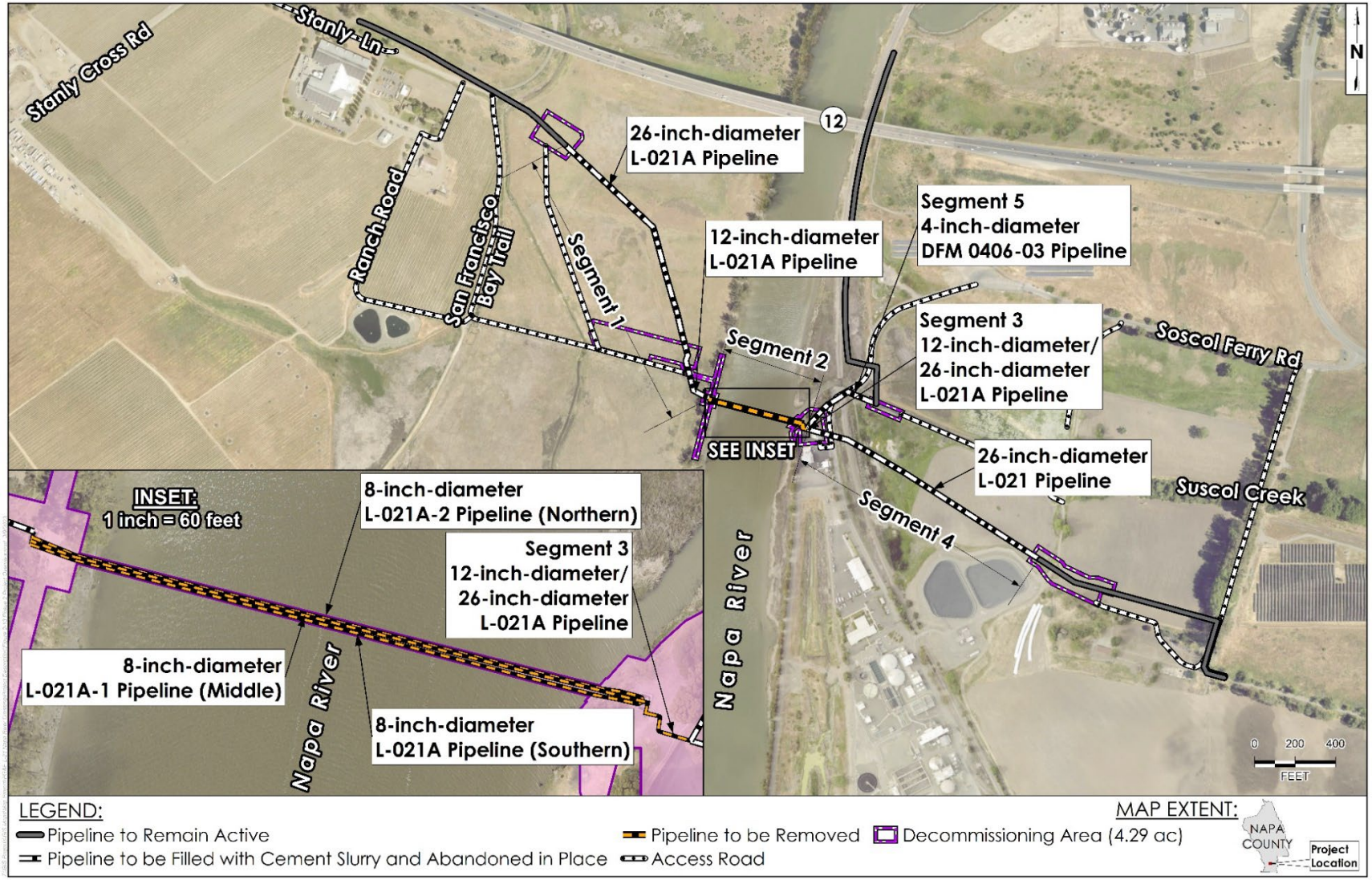
and pipeline markers would be installed along the replacement pipeline alignment.

PHASE 2 OF WORK: EXISTING PIPELINE DECOMMISSIONING

After Phase 1, the existing L-02A pipelines would be decommissioned and disconnected from the gas pipeline network. Phase 2 decommissioning of the existing L-021A pipelines has been divided into five segments as further described below and shown in Figure ES-3. Before starting decommissioning activities, Segments 1 and 3 through 5 of the pipelines would be pigged and flushed (i.e., cleared and cleaned) to remove any remaining contaminants. Hydrojetting (alternate pipe cleaning method) would be used in Segment 2 to accommodate the smaller diameter and interior pipe within Segment 2. The segments are numbered sequentially from the western end to the eastern end of the pipeline, and their dimensions and final dispositions are discussed below.

- **Segment 1 – West Field Segment** (1,259 feet of 26-inch-diameter pipeline)
    - Final Disposition: Natural gas would be removed, pigged, filled with cement slurry, capped at both ends, and left buried in place.
- **Segment 2 – River Crossing Segment** (483 feet of three, 8-inch-diameter pipelines [total of 1,449 feet of pipeline])
    - Final Disposition: The entire pipeline segment and the pipeline manifolds and valves on both sides of the River would be removed. The concrete valve box on the east side of the River would be demolished and removed.
- **Segment 3 – East Transition Segment** (12 feet of 12-inch-diameter pipeline and 37 feet of 26-inch-diameter pipeline)
    - Final Disposition: The entire segment would be removed.
- **Segment 4 – East 26-inch-Diameter Segment** (1,326 feet of 26-inch-diameter pipeline)
    - Final Disposition: Natural gas would be removed, pigged, filled with cement slurry, capped at both ends, and left buried in place.
- **Segment 5 – 4-inch-Diameter Distribution Feeder Main** (423 feet 4-inch-diameter pipeline)
    - Final Disposition: Natural gas would be removed, pigged, filled with cement slurry, capped at both ends, and left buried in place.

Figure ES-3. Phase 2 Overview



ENVIRONMENTAL IMPACTS AND PROPOSED MITIGATION MEASURES

This MND identifies potential significant impacts of the Project on the following environmental resource areas:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Cultural Resources – Tribal
- Geology, Soils, and Paleontological Resources
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Recreation
- Transportation
- Mandatory Findings of Significance

Impacts of the Project on the environmental resource areas below would be considered less than significant:

- Agriculture and Forestry Resources
- Energy
- Greenhouse Gas Emissions
- Mineral Resources
- Population and Housing
- Public Services
- Utilities and Service Systems
- Wildfire

PG&E has agreed to the implementation of MMs, that would reduce the potentially significant impacts to "less than significant with mitigation," as detailed in Section 3.0, Environmental Checklist and Analysis, of this MND.

Table ES-1 lists the proposed MMs designed to reduce or avoid potentially significant impacts. With implementation of the proposed MMs, all Project-related impacts would be reduced to less than significant levels.

Table ES-1. Summary of Proposed Project Mitigation Measures (MM)

Proposed Project Mitigation Measures
Aesthetics
MM AES-1: Glare Minimization
Air Quality
MM AQ-1: Fugitive Dust Control Measures
MM AQ-2: Bay Area Air Quality Management District Equipment Emissions Reduction Measures
Biological Resources
MM BIO-1: Swainson's Hawk Nesting Season Avoidance or Pre-Construction Surveys
MM BIO-2: Nesting Bird Season Avoidance or Pre-Construction Surveys
MM BIO-3: California Black Rail Nesting Season Avoidance or Pre-Construction Surveys
MM BIO-4: Salt Marsh Harvest Mouse Avoidance and Surveys (PG&E Marsh Hot Zone 8)
MM BIO-5: Salt Marsh Harvest Mouse Exclusion Fencing
MM BIO-6: Western Pond Turtle Pre-Construction Surveys
MM BIO-7: Environmental Training Program
MM BIO-8: Biological Monitoring
MM BIO-9: Pre-Construction Rare Plant Surveys and Restoration
MM BIO-10: Turbidity Monitoring Plan
MM BIO-11: Site Restoration Plan
MM HAZ-1: Project Work and Safety Plan
MM HAZ-3: Inadvertent Release Contingency Plan
MM HYDRO-1: Stormwater Pollution Prevention Plan
Cultural Resources
MM CUL-1/TCR-1: Sensitive Resource Area Exclusion Zone
MM CUL-2: Cultural Resources Monitoring
MM CUL-3/TCR-3: Cultural and Tribal Cultural Resources Awareness Training
MM CUL-4/TCR-4: Discovery of Previously Unknown Cultural or Tribal Cultural Resources
MM CUL-5/TCR-5: Unanticipated Discovery of Human Remains
Cultural Resources – Tribal
MM CUL-1/TCR-1: Sensitive Resource Area Exclusion Zone
MM CUL-3/TCR-3: Cultural and Tribal Cultural Resources Awareness Training
MM CUL-4/TCR-4: Discovery of Previously Unknown Cultural or Tribal Cultural Resources
MM CUL-5/TCR-5: Unanticipated Discovery of Human Remains
Geology, Soil, and Paleontological Resources
MM BIO-11: Site Restoration Plan
MM HYDRO-1: Stormwater Pollution Prevention Plan

Hazards and Hazardous Materials
MM HAZ-1: Project Work and Safety Plan
MM HAZ-2: Asbestos Handling Procedure
MM HAZ-3: Inadvertent Release Contingency Plan
MM HAZ-4: Pre- and Post-Project Bathymetric and Surficial Features Multi-Beam Debris Survey
MM HAZ-5: Notifications to Airport Regulatory Agencies Prior to Initiation of Work Activities
MM AES-1: Glare Minimization
MM TRA-1: Traffic Control Plan
Hydrology and Water Quality
MM HYDRO-1: Stormwater Pollution Prevention Plan
MM BIO-10: Turbidity Monitoring Plan
MM BIO-11: Site Restoration Plan
MM HAZ-3: Inadvertent Release Contingency Plan
Land Use and Planning
MM HAZ-5: Notifications to Airport Regulatory Agencies Prior to Initiation of Work Activities
Noise
MM NOI-1: Work Hours
Recreation
MM REC-1: Riverine Safety Measures
MM REC-2: Local Notice to Mariners
Transportation
MM TRA-1: Traffic Control Plan
Commercial and Recreational Fishing
MM REC-1: Riverine Safety Measures
MM REC-2: Local Notice to Mariners

1.0 PROJECT AND AGENCY INFORMATION

1.1 PROJECT TITLE

Pacific Gas and Electric Company (PG&E) L-021A[4] Napa River Pipeline Crossing Replacement Project (Project)

1.2 LEAD AGENCY AND PROJECT SPONSOR

Lead Agency:
California State Lands Commission
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825
Contact: Afifa Awan, Senior Environmental Scientist
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Applicant:
Pacific Gas and Electric
5555 Florin-Perkins Road
Sacramento, CA 95826
Contact: Vick Germany, AICP, Senior Land Planner
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925.464.8010

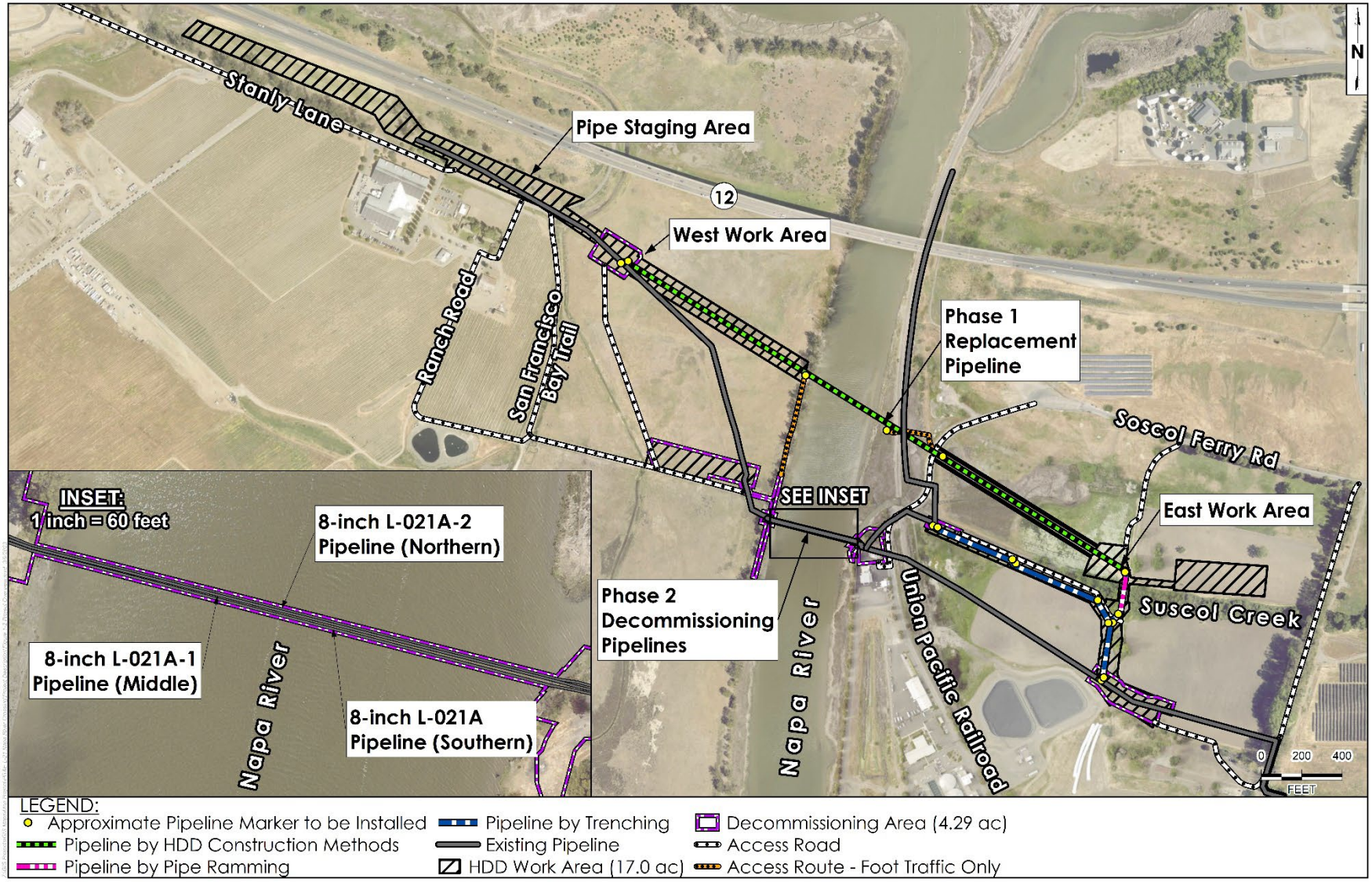
1.3 PROJECT LOCATION

The Project area is located near Napa, Napa County, California (Figure 1-1). State Highway 12 is to the north of the Project area, and the Napa Sanitation District (NapaSan) facilities are to the south and east of the Project area. The California Department of Fish and Wildlife's (CDFW) Napa-Sonoma Marshes Wildlife Area and California Department of Transportation (Caltrans) right-of-way along Highway 12 are to the west of the Project area. The Project area extends across the Napa River (River) (Figure 1-2). Please see Section 2, Project Description, for additional Project location details.

[4] L-021A refers to the name of the gas pipeline alignment.

Figure 1-1. Project Vicinity

Figure 1-2. Project Overview



1.4 ORGANIZATION OF THE MITIGATED NEGATIVE DECLARATION

This Initial Study/Mitigated Negative Declaration (MND) is intended to provide the California State Lands Commission (CSLC), as lead agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.), and responsible agencies with the information required to exercise their discretionary responsibilities for the proposed Project. The MND also provides the public with information about the proposed Project, an analysis of potential environmental impacts from the Project, and identification of mitigation measures that will be implemented to reduce those environmental impacts as much as possible. The MND is organized as follows:

Section 1.0 presents the Project background and Project location, agency and Applicant information, Project objectives, anticipated agency approvals, and a summary of the public review and comment process.

Section 2.0 describes the proposed Project—its layout, equipment, and facilities—and provides an overview of the Project's operations and schedule.

Section 3.0 presents the Initial Study, which includes the environmental setting, identification and analysis of potential impacts, and discussion of Project changes and other measures that, if incorporated into the Project, would mitigate or avoid those impacts, such that no significant effect on the environment would occur. The CSLC prepared this IS pursuant to State CEQA Guidelines section 15063.[5]

Section 4.0 discusses other CSLC considerations relevant to the Project, such as climate change and sea level rise, commercial fishing, and environmental justice, that are in addition to the environmental review required by CEQA.

Section 5.0 presents information on report preparation and references.

Appendices include the Mitigation Monitoring Program, Project design specifications, technical data, and other information supporting the analysis presented in this MND:

- Appendix A: Abridged List of Major Federal and State Laws, Regulations, and Policies

[5] The State CEQA Guidelines are found in California Code of Regulations, title 14, section 15000 et seq.

- Appendix B: List of Local Laws, Regulations and Policies
- Appendix C: Mitigation Monitoring Program
- Appendix D: Project Design Plans
- Appendix E: Air Quality and Greenhouse Gas Emission Calculations
- Appendix F: Biological Technical Report
- Appendix G: Noise Modeling Results and Vibration Calculations
- Appendix H: Geotechnical Investigation Report
- Appendix I: Inadvertent Release Contingency Plan

1.5 PROJECT BACKGROUND AND OBJECTIVES

1.5.1 Project Need and Objectives

The National Transportation Safety Board (NTSB) issued a scheduled safety recommendation to PG&E requiring that the existing Napa River L-021A pipeline crossing be assessed for any threats to its integrity. Assessing this pipeline using in-line (internal) pipeline inspection is not possible because of its small diameter and layout at the River crossing. Therefore, PG&E proposes to replace the existing L-021A pipeline segments with a single pipeline of uniform diameter before December 31, 2024, to comply with the NTSB recommendation, allow for in-line inspection, and maintain uninterrupted natural gas service to its customers.

1.5.2 Project Components

The Project includes the following components:

- Install a replacement 26-inch-diameter pipeline under the River using the horizontal directional drilling (HDD) method (Phase 1)
- Tie the replacement crossing into the existing pipeline network using open cut trenching in some areas and pipe ramming in other areas (Phase 1)
- Remove the three existing 8-inch-diameter pipelines under the River within CSLC's jurisdiction (Phase 2)
- Leave in place the existing pipeline segments on land outside of CSLC's jurisdiction (Phase 2)

1.5.3 Existing L-021A Pipelines and Infrastructure

From west to east, the existing L-021A pipelines consists of a single 26-inch-diameter pipeline buried underground that transitions into a 12-inch-diameter pipeline and then branches into three, 8-inch-diameter pipelines (L-021A, L-021 A-1, and L-021A-2) that extend approximately 500 feet across and under the Napa River at a maximum depth of 17 feet (Figure 1-2). On both banks of the River, aboveground pipeline manifolds connect the riverine sections of the pipelines to the terrestrial sections of the pipeline. On the east bank of the River, the pipeline manifold is contained in a concrete valve box, but it is exposed on the west side of the River.

On the River's east bank, the three 8-inch-diameter pipelines (L-021A, L-021A-1, and L-021A-2)) transition into one 12-inch-diameter pipeline (Figure 1-2). The 12-inch diameter pipeline tees off into a 4-inch-diameter distribution feeder main line (DFM-0406-03) which heads north and is perpendicular to the main L-021A pipeline. After the feeder main line, it becomes a 26-inch-diameter pipeline. The 26-inch-diameter existing L-021A pipeline continues east under Soscol Ferry Road, the railroad tracks, and an agricultural field. The pipeline is buried under the railroad tracks and would be left in place. Therefore, the Project-related activities would not have any impacts on the existing function of the railroad tracks.

1.5.4 Proposed Project Summary

Phase 1 of the Project proposes to replace the existing L-021A pipelines by installing a single 26-inch-diameter replacement pipeline under the River within the CSLC's jurisdiction using the HDD method. Part of the replacement pipeline would be installed under Suscol Creek using pipe ramming technology. Other pipe segments on land would be installed with traditional trenching methods to connect the pipeline installed via HDD and pipe ramming methods to the existing pipeline network.

During Phase 2 of the Project, the existing L-021A pipelines would be completely removed from under the River within the CSLC's jurisdiction. Other pipeline sections on land outside of the CSLC jurisdiction would be left in place. If any free liquids are present in these pipelines, they would be removed using pigging and flushing pipeline cleaning methods (interior cleaning methods further explained in Section 2.2.2.2). Then, these pipeline segments would be filled with cement slurry, capped at the ends, and left buried in place outside of CSLC's jurisdiction and PG&E would not maintain them anymore.

1.6 PUBLIC REVIEW AND COMMENT

Pursuant to State CEQA Guidelines sections 15072 and 15073, a lead agency must issue a proposed MND for a minimum 30-day public review period. Agencies and the public will have the opportunity to review and comment on the document. Responses to written comments received by CSLC during the 30-day public review period will be incorporated into the MND, if necessary, and provided in the staff report to the Commission. In accordance with State CEQA Guidelines section 15074, subdivision (b), the Commission will review and consider the MND, together with any comments received during the public review process, prior to acting on the MND and Project at a noticed public hearing.

1.7 APPROVALS AND REGULATORY REQUIREMENTS

1.7.1 California State Lands Commission

All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the common law Public Trust. The State of California acquired sovereign ownership of all tidelands and submerged lands and beds of navigable lakes and waterways upon its admission to the United States in 1850. The State holds these lands for the benefit of all people of the State for statewide Public Trust purposes, which include but are not limited to, waterborne commerce, navigation, fisheries, water-related recreation, habitat preservation, and open space.

On tidal waterways, the State's sovereign fee ownership extends landward to the ordinary high-water mark, which is generally reflected by the mean high-tide line, except for areas of fill or artificial accretion. For this Project, the State's sovereign fee ownership includes the bed of the Napa River, extending landward. The CSLC's authority is set forth in Division 6 of the Public Resources Code and California Code of Regulations, title 2, sections 1900–2970. The CSLC has authority to issue leases or permits for the use of sovereign land held in the Public Trust, including all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways, as well as certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions (Pub. Resources Code, §§ 6009, subd. (c); 6009.1; 6301; 6306). The CSLC must comply with CEQA when it undertakes an activity defined by CEQA as a "project" that must receive discretionary approval (i.e., the CSLC has the authority to approve or deny the requested lease, permit, or other approval) and that may cause either a direct physical change or a reasonably

foreseeable indirect change in the environment. CEQA requires the CSLC to identify the significant environmental impacts of its actions and to avoid or mitigate those impacts, if feasible.

PG&E applied to CSLC to use the area under CSLC's jurisdiction under the River. The Commission will consider issuing a new lease for use of State-owned land to install a replacement pipeline crossing under the River, which will be installed during Phase 1 in the same approximate alignment as the existing three, 8-inch-diameter pipelines (L-021A, L-021A-1, and L-021A-2), which will be removed during Phase 2.

1.7.2 Other Agencies

In addition to the CSLC, the Project is subject to the review and approval of other federal, State, and local entities with statutory or regulatory jurisdiction over various aspects of the Project (Table 1-1). On December 15, 2022, the CSLC held an interagency meeting with responsible agencies, local municipalities, and property owners to share the Project description and hear their concerns about environmental impacts from the proposed Project.

PG&E has been proactively and regularly coordinating with relevant regulatory permitting agencies. All permits required for the Project would be obtained before starting any Project-related activities.

Table 1-1. Anticipated Agencies with Review or Approval over Project Activities

Permitting Agency	Anticipated Approvals or Regulatory Requirements
State	
California State Lands Commission (CSLC)	CEQA Lead Agency Right-of-Way Lease Agreement
California Department of Fish and Wildlife (CDFW)	California Endangered Species Act and Fish and Game Code sections 1600-1616 Lake and Streambed Alteration Agreement
California Department of Transportation (Caltrans)	California Streets and Highways Code sections 660-734 Encroachment Permit
San Francisco Bay Regional Water Quality Control Board (RWQCB)	Clean Water Act Section 401 Porter-Cologne Water Quality Certification

Permitting Agency	Anticipated Approvals or Regulatory Requirements
Native American Heritage Commission (NAHC)	Tribal Consultation
State Historic Preservation Office	National Historic Preservation Act Section 106 Consultation
Federal	
U.S. Army Corps of Engineers (USACE)	Clean Water Act (CWA) Section 404 and Section 10 Rivers and Harbors Act (under Nationwide Permit No. 12) 33 U.S.C. Section 408 Permission (Letter of Permission)
U.S. Coast Guard (USCG)	Local Notice to Mariners
U.S. Fish and Wildlife Service (USFWS)	PG&E Bay Area Habitat Conservation Plan (BAHCP) and Incidental Take Permit for covered species Section 7 Consultation (Federal Endangered Species Act (FESA) for non-covered species
National Oceanic and Atmospheric Administration (NOAA) Fisheries	Section 7 Consultation (Federal Endangered Species Act (FESA)) Essential Fish Habitat Review
Local	
Napa County Flood Control and Water Conservation District	Non-Federal Sponsor of Federal Navigation Project in the Napa River No Permit Required
City of Napa	Encroachment Permit for Stanly Lane Approval to work outside of time-of-day noise restrictions
Southern Pacific Railroad	Encroachment Permit

2.0 PROJECT DESCRIPTION

Pacific Gas and Electric Company (PG&E) is proposing to replace their existing Napa River (River) 021A pipeline (L-021A) crossing (Project) located near the city of Napa in Napa County. The Project objectives are to install a replacement 26-inch-diameter pipeline under the River using the horizontal directional drilling (HDD) method, tie the replacement pipeline into the existing pipeline network using open cut trenching in some areas and pipe ramming under the Suscol Creek, remove the existing pipelines from under the River under California State Lands Commission's (CSLC) jurisdiction, and leave in place the existing pipelines on land outside of CSLC's jurisdiction. The Project would be conducted in two distinct but sequential phases:

- Phase 1: Replacement Pipeline Installation
- Phase 2: Existing Pipelines Decommissioning

2.1 PHASE 1 (REPLACEMENT PIPELINE INSTALLATION)

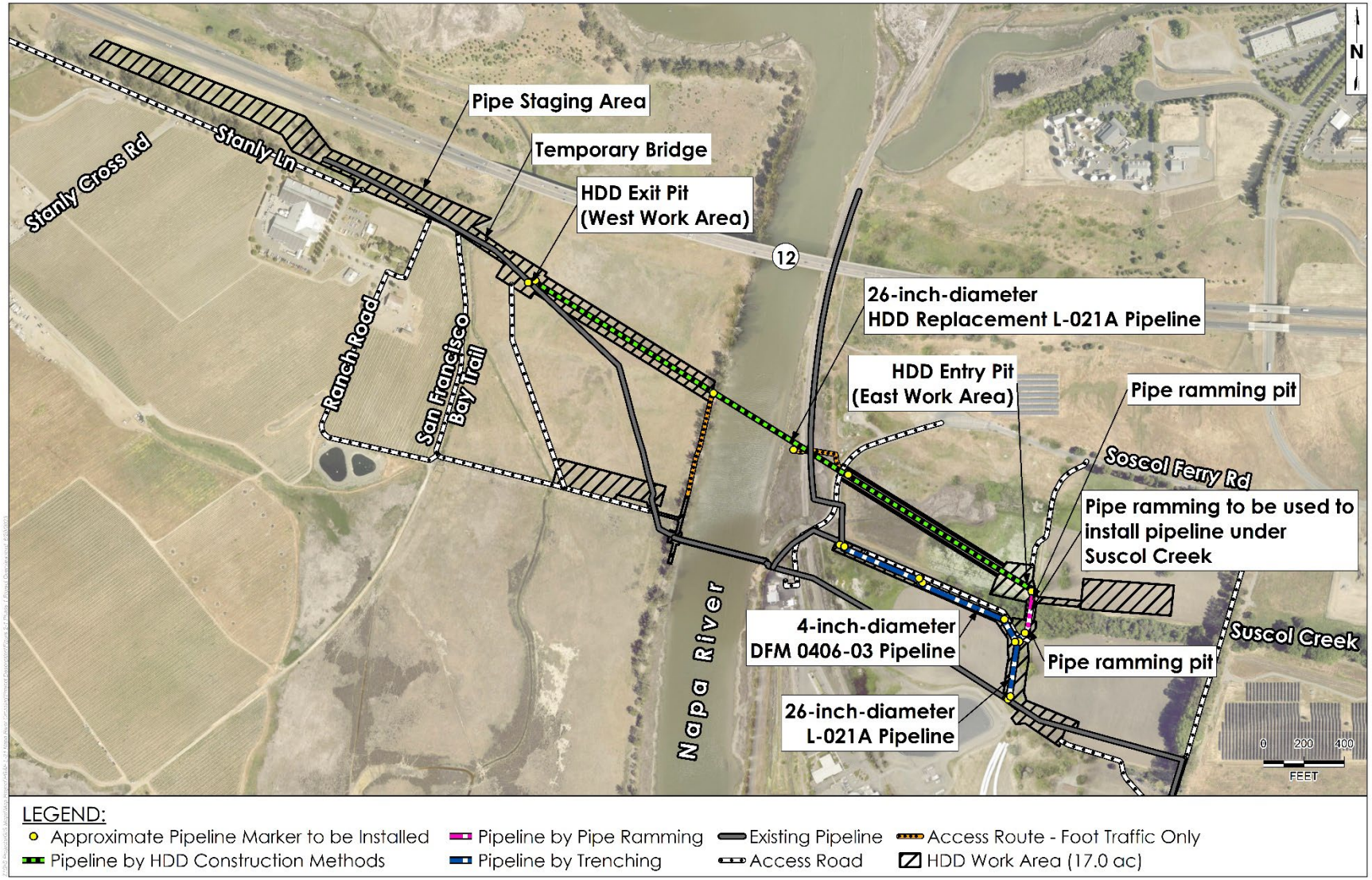
Phase 1 would consist of the following major components (Figure 2-1):

- Drill a pilot borehole for a 26-inch-diameter pipeline, starting from east to west, approximately 60 feet deep under the River using the HDD method
- Pull the 26-inch-diameter pipeline into the final borehole from the West Work Area to the East Work Area
- Pipe ram the 26-inch-diameter pipeline under Suscol Creek
- Excavate tie-in trenches within terrestrial areas
- Connect the new replacement pipeline to the existing pipeline network

2.1.1 Horizontal Directional Drilling Work Areas

There would be three HDD Work Areas (East Work Area, West Work Area, and Pipe Staging Area) on approximately 14.56 acres needed for installing the replacement pipeline under the River (Figure 2-1). These areas would provide space for a drill rig, drilling materials and equipment staging, excavating for pipe installation and pipe ramming, and equipment staging. The HDD method would avoid direct disturbance to the wetland habitat in the River.

Figure 2-1. Phase 1 Project Overview



2.1.1.1 East Work Area

The East Work Area (Figure 2-2) is pastureland located east of the River in the vicinity of Suscol Creek. The East Work Area is within property owned by the Napa Sanitation District (NapaSan), which includes developed lands used for wastewater treatment and undeveloped irrigated pasture or cropland and marshlands. Project activities in the East Work Area include HDD entry pit excavation, HDD tracer wire installation, pipe ramming and trenching, and staging of equipment and materials. No paving or placement of gravel is anticipated to be needed in the East Work Area to complete work. Temporary crane mats may be placed below equipment for stabilization and to minimize disturbance. A portion of the field east of the unnamed access road, adjacent to the HDD entry pit, would be used for materials and equipment staging and storage and treatment of wastewater and groundwater generated by the Project. These locations would be accessed using existing roads and bridges on the NapaSan property, and no new access roads or bridges are required to access the East Work Area.

Figure 2-2. Photograph of the East Work Area

2.1.1.2 West Work Area

The West Work Area (Figure 2-3) is located within grazed pastureland within the California Department of Fish and Wildlife's (CDFW) Napa-Sonoma Marshes Wildlife Area[6]. The West Work Area extends northwest into the undeveloped land west of the River. Project activities in the West Work Area include HDD exit pit excavation, HDD tracer wire installation, and staging of equipment and materials. The HDD Exit Pit within the West Work Area would be accessed using Ranch Road from Stanly Lane and an unnamed dirt road along the top of the berm that provides access to the River (Figure 2-1). A temporary crossing would be installed over the excavated channel between Stanly Lane and the West Work Area, which would allow a more direct access route between the HDD Exit Pit and the Pipe Staging Area during pipeline pullback (Section 2.1.2.6, Figure 2-9).

Figure 2-3. Photograph of the West Work Area

[6] Please see https://wildlife.ca.gov/Lands/Places-to-Visit/Napa-Sonoma-Marshes-WA for details.

Figure 2-4. Photograph of the Pipe Staging Area

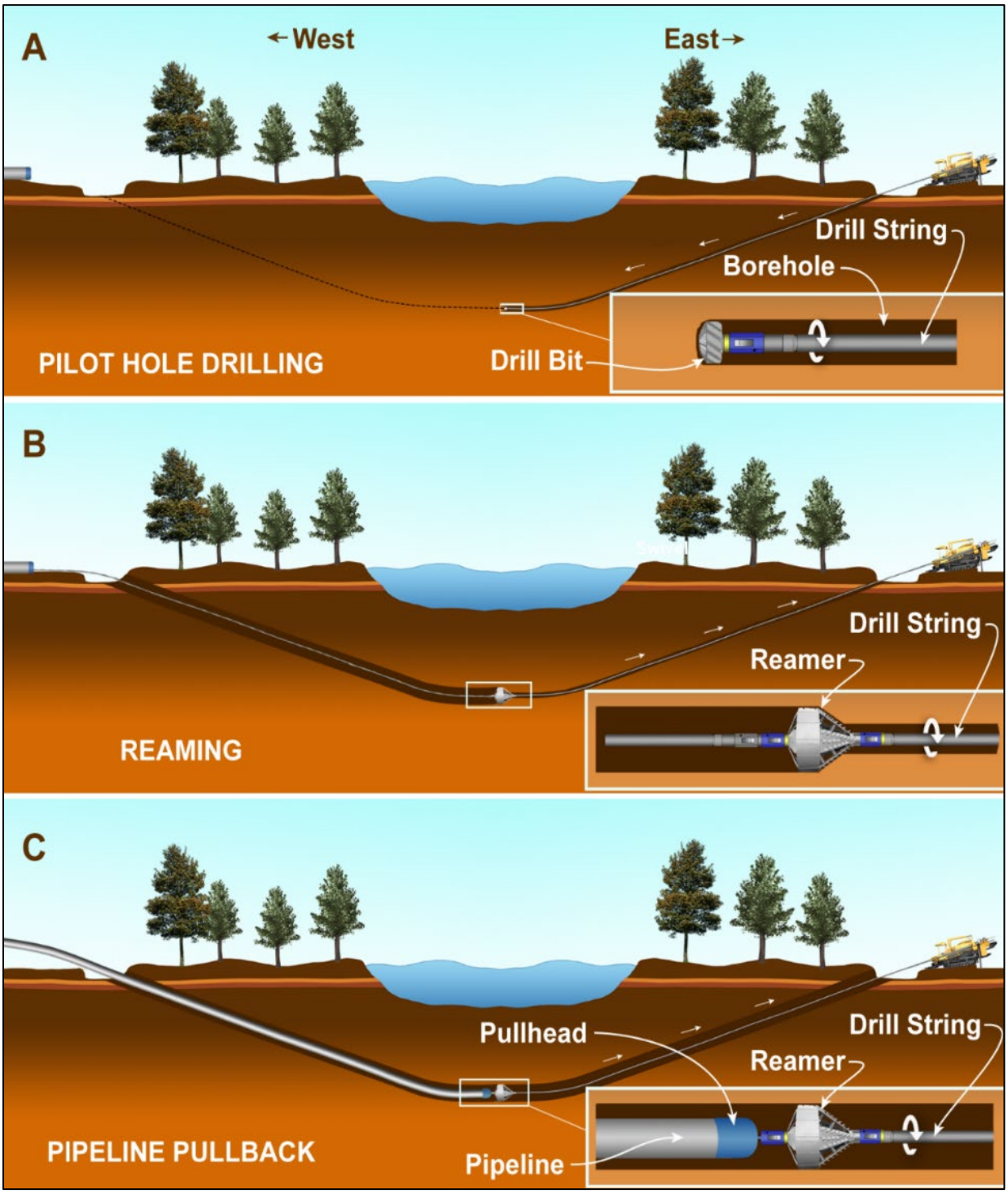
2.1.1.3 Pipe Staging Area

The Pipe Staging Area (Figures 2-1 and 2-4) is located northwest of the West Work Area north of Stanly Lane within Highway 12 right-of-way. The Pipe Staging Area would be accessed from Stanly Lane and would be used to weld, coat, assemble, and test the pipe string that would be pulled into the HDD borehole (exit pit) during pipeline pullback.

2.1.2 Horizontal Directional Drilling Method

PG&E proposes to install a pipeline that would replace the existing pipeline under the River by HDD method to minimize disturbance to the River (Figure 2-5). The HDD procedures have been developed using site-specific geotechnical data (Appendix H) to ensure the drilling would be successfully completed while minimizing the risk of inadvertent drilling fluid loss into the River or terrestrial areas along the drill alignment (Figure 2-1).

Figure 2-5. Conceptual Diagram of the HDD Method



The following is a summary of key HDD-related activities required to install the proposed replacement pipeline:

- Borehole pits (Eastern entry pit and Western exit pit) would be excavated at each end of the replacement pipeline alignment.
- One directional drilling rig would be mobilized in the East Work Area and the initial HDD pilot borehole of approximately 2,800 feet would be drilled from east to west (Figure 2-5A).
- Once the initial pilot borehole is completed, subsequent drill string passes (reaming operations) would be performed to clean and widen the borehole to its final diameter (Figure 2-5B).
- Simultaneously with HDD operations, the replacement pipe string would be assembled within the Pipe Staging Area. Once the pipe string assembly is completed, a preliminary hydrostatic test (hydrotest), when pressurized water is added to the pipeline, would be performed to verify the pipe string integrity before the pipeline pullback. Water used for preliminary hydrotesting would be stored on-site and re-used for the final hydrotest (Section 2.1.2.5).
- Once the final HDD borehole and the preliminary hydrotest are completed, the replacement pipe string would be pulled into the HDD borehole from west to east using the drill rig at the East Work Area (Figure 2-5C).
- Once the replacement pipeline is in place, a cement slurry would be pumped into the annulus (space between the borehole and the replacement pipeline) in the West and East Work Areas to secure the pipeline within its alignment. At least 100 feet of annulus would be filled with cement at each end of the HDD borehole.
- Connection pipelines would be installed using primarily terrestrial open cut trenching methods to connect the replacement pipeline to the existing pipeline system. A short segment of pipe would be installed under Suscol Creek (Creek) using pipe ramming installation methods (Section 2.1.3).
- The final hydrotest would be performed on the entire replacement pipeline (including trench-installed and pipe ramming-installed pipeline segments) prior to the final tie-in welds on each end. Hydrotest wastewater would be disposed either by discharge to land, discharge to surface water, or discharge to a Publicly Owned Treatment Works (POTW) (i.e., Municipal Wastewater Treatment Plant) (Section 2.1.8).

- Odor fade conditioning (which consists of conditioning new pipe to ensure gas has safe levels of odorant [rotten egg smell] as it travels through the new pipeline and into the existing system) and monitoring would be performed on the newly installed pipeline (Section 2.1.5).

2.1.2.1 Phase 1 Equipment and Personnel Requirements

Table 2-1 estimates Phase 1 equipment requirements. Table 2-2 estimates Phase 1 material pickups and deliveries. Table 2-3 estimates Phase 1 personnel requirements.

Table 2-1. Phase 1 Estimated Equipment Requirements

Equipment Type	Quantity	Horsepower	Operating Hours per Day	Days
Light-Duty Truck (Crew)	10	200	2	80
Light Plant	6	15	6	80
Generator (40 kilowatt [kW])	3	60	10	80
Air Compressor (185 cfm[1])	3	50	4	80
Air Compressor (1000 cfm)	1	540	10	4
Water Pump	1	20	2	40
Concrete Pump	1	250	4	2
Crane	4	450	24	3
Welding Machine	4	20	8	14
Hydroexcavator	1	300	6	2
Excavator	3	310	8	20
Wheeled Loader	3	240	8	20
Reachlift (Forklift)	1	74	4	60
Reclaimers	1	422	12	60
Dirt Compact Roller	1	150	8	5
Dozer	1	310	8	10
Prime Pump	4	70	10	60
Drilling Rig	1	700	10	60
Water Truck	1	360	8	80
Thompson Pump	1	44	4	80
Skid Steer Loader	1	62	8	14
Skip Loader	1	69	8	4
Mud Pump	1	600	10	60
Side-Boom Pipelayer	6	260	10	2

[1] cubic feet per minute

Table 2-2. Phase 1 Pickup and Delivery Estimates

Item	Trips	One-Way Miles per Trip
Pipe Delivery	14	60
Heavy Equipment Mobilization and Demobilization	30	60
Water Deliveries/Disposal	10	40
Hydrotest Water Deliveries/Disposal	10	200
Fill Import/Export	10	40
Solid Waste Disposal	20	40
Vacuum Trucks	20	40

Table 2-3. Phase 1 Personnel Requirements

Task	Quantity	Hours per Day	Days
Site support/Project Manager	3	12	80
Pipe/material procurement	6	10	6
Excavation	6	10	5
Pipeline string welding	8	10	30
Pipeline installation	10	10	10
HDD operation	20	10	60
Pipeline string pullback	22	12	10
Strength test and caliper pigging	6	10	10
Backfill/site restoration	6	10	10

2.1.2.2 Horizontal Directional Drilling Entry and Exit Bore Pits Excavation and Site Preparation

The HDD operations would use a drilling rig to drill a pilot borehole under the River from the east HDD entry pit to the HDD exit pit west of the River (Figure 2-1). The HDD entry point would be approximately 1,460 feet from the River in the East Work Area (Figure 2-2). An entry pit approximately 10 feet wide, 10 feet long, and 4 feet deep would be dug out using an excavator and potentially a loader, if the soil pile needs to be moved away from the excavation. When drilling is nearly complete, an exit pit of the same size would be excavated. The exit pit is constructed after the entry pit and drilling process begins for logistical and technical reasons. This exit pit would be approximately 1,100 feet from the River in the West Work Area (Figure 2-3). Soil excavated from the entry and exit pits would be stockpiled within the adjacent work areas to be used for backfilling and site restoration when the Project is completed. See Appendix D, Project Plans, for additional detail.

2.1.2.3 Horizontal Directional Drilling Pilot Borehole Drilling

At the East Work Area, the drill rig (Figure 2-6 and 2-7) would be positioned along the selected HDD alignment. The drill head and steering probe would be drilled into the soil at the bottom of the entry pit. The pilot borehole would be drilled approximately 60 feet deep beneath the River bottom. The actual path of the pilot borehole would be monitored during drilling by taking periodic readings of the inclination and azimuth of the leading edge using a tracking system to calculate the horizontal and vertical coordinates relative to the initial entry point on the surface. Figure 2-5, above, details the pilot borehole drilling, reaming, and pipeline pullback process.

Figure 2-6. HDD Entry Worksite in East Work Area

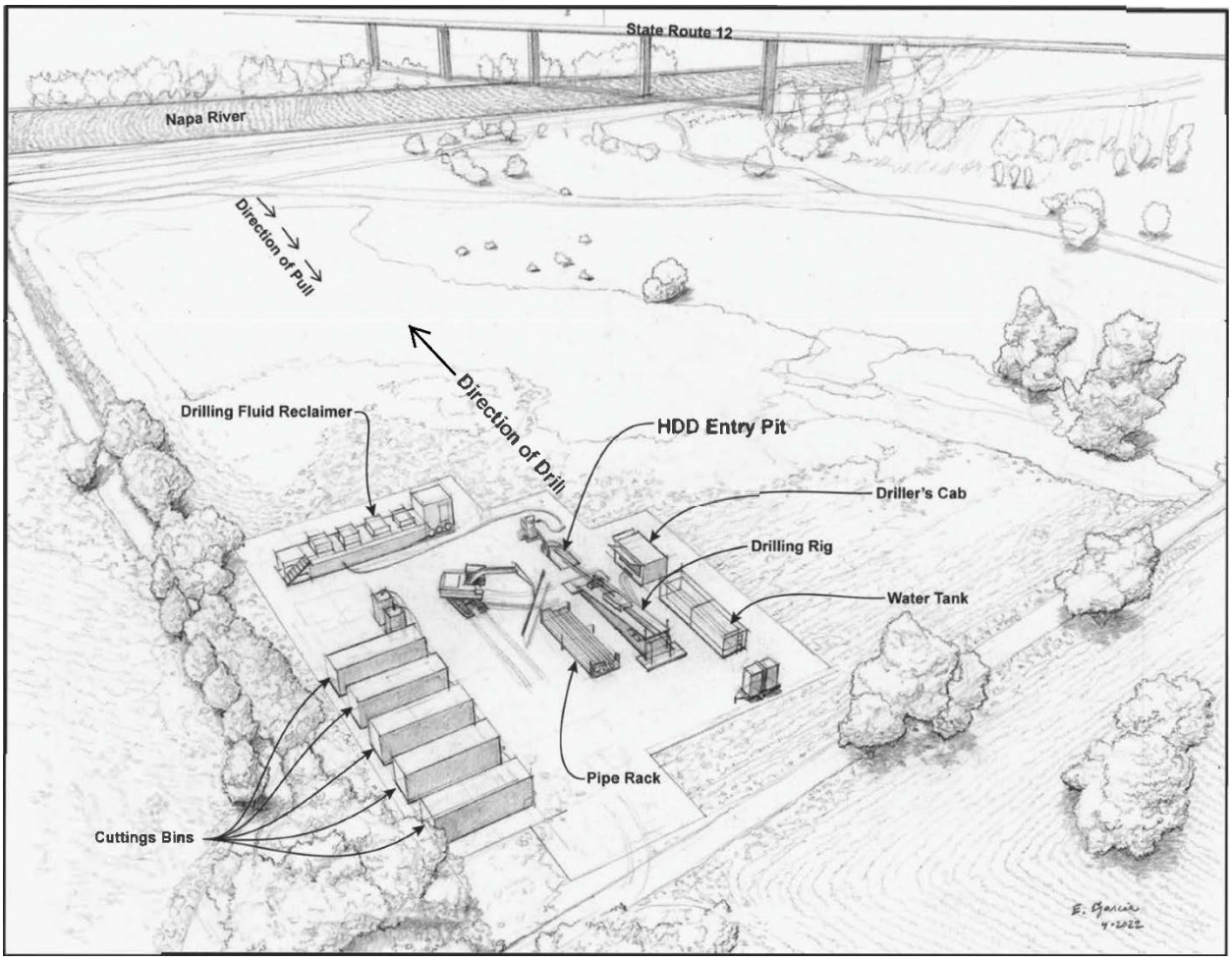


Figure 2-7. Photograph of an Example Drilling Rig and Entry Pit from a Previous Unrelated Project

Figure 2-7 shows an example of an HDD drilling rig and borehole entry pit from a previous unrelated project. The pilot borehole for this Project would continue from east to west until it is near the surface in the West Work Area, where it would resurface in the exit pit to complete the pilot borehole.

During drilling operations, above ground tracer wires would be temporarily placed on the ground surface within terrestrial areas along the western and eastern borehole alignments to assist with positioning and steering the drill heads. These above ground tracer wires would not require excavation or equipment access but may require temporary vegetation removal and footpath access. Tracer wires would be removed once HDD operations are completed. There is no public access[7] on the land where tracer wires would be placed on the ground. Therefore, there should be no public safety hazard.

[7] The tracer wires would be placed on pastureland on private properties, so the public would not have access. These wires would lay on the ground along the HDD alignment to track the progress of the drill. The tracer wires would not go all the way to the River's edge, so recreational users of the River should not be impacted by them.

The borehole volume would need to stay filled to keep the borehole stable. Water and drilling fluid additives (such as bentonite clay[8]) would be mixed and added to the circulating drilling fluid to minimize borehole from caving in as the drill string moves forward and increases the borehole volume. Reclaimed water, well water or a municipal water source (depending on availability), would be trucked from an off-site source and deposited in a portable water tank at the drill site for use in creating drilling fluid. Approximately 300,000 gallons of freshwater would be required to produce the necessary drilling fluids.

Drilling fluid must be constantly circulated in a loop during the drilling process. Starting at the drill head, the pressurized drilling fluid inside the drill string would exit through nozzles in the drill head and sweep cuttings (solids such as gravel, sand, and silt dislodged by the drill head) away from the drill head. The cuttings-laden drilling fluid would then flow back through the borehole to the entry pit. A pit pump would move the cuttings-laden drilling fluid from the HDD entry pit to the reclaimer. The reclaimer separates the cuttings from the drilling fluid using screens and hydrocyclones, which are metal cones that use circular motion (centripetal force) to separate solids (drill cuttings) from the drilling fluid. Cuttings would be removed from the drilling fluid and temporarily stored in cuttings bins before they are trucked offsite to be disposed (Figure 2-6). Reclaimed drilling fluid would then be pumped back into the drill string to return to the drill head and start the cycle over again.

To minimize the potential for inadvertent drilling fluid releases, the annular pressure (i.e., pressure in the borehole during drilling) would be monitored and continuously recorded while the pilot borehole is being drilled using an electronic sensor package and compared to a calculated expected annular pressure to maintain pressures, so they do not exceed the predetermined maximum annular pressure.

2.1.2.4 Horizontal Directional Drilling Pilot Borehole Reaming

Once the pilot borehole is completed, reaming operations would widen the borehole to its final diameter preparing to pullback the replacement pipeline under the River (Figure 2-5). The estimated final borehole diameter would be approximately 36 inches. However, this is only an initial estimate, and the final borehole diameter may change to accommodate the drilling equipment used

[8] Bentonite clay is non-toxic and is used to lubricate the borehole during drilling, assist in capturing drilling fluid returns, and separate the borehole from any geologic formations.

by the HDD contractor, while also ensuring that the borehole is sufficiently larger than the pipeline diameter to allow the pipeline to move freely during pullback.

Reaming tools (Figure 2-5) would include drilling fluid jets. Drilling fluid composed of non-toxic compounds, such as bentonite, would be used to help ream the pilot borehole. The pressurized drilling fluid serves three purposes: to cool the cutting tools, support the reamed borehole, and lubricate the trailing drill pipe. The drilling fluid returns coming back to the drill rig side would be pumped to the reclaimer and re-circulated.

2.1.2.5 Pipeline String Assembly and Testing

Concurrent with HDD operations, a 2,800-foot-long pipeline string would be assembled from individual 40-foot-long steel pipes (delivered by flatbed truck) and laid out on rollers in the Pipe Staging Area (Figures 2-1 and 2-4). Pipe segments would arrive with a fusion-bonded epoxy pipeline coating and abrasion resistant coating already applied at the factory. The pipe segments would be welded together, and liquid epoxy coatings would be applied over the welded areas. Both the welds and coatings would be inspected as required by federal and state regulations and PG&E's standards. The welded pipe string would be hydrotested by filling the completed replacement pipeline with water in the Pipe Staging Area, pressurizing the water, and monitoring for pressure changes. The purpose of this preliminary hydrotest is to identify any issues when repairs are easier to perform before pulling the replacement pipeline into the borehole. However, an additional hydrotest would be conducted before the final pipeline replacement joint is connected (final tie-in) (Section 2.1.5). Water used for preliminary hydrotesting would be stored on-site and re-used for the final hydrotest. Hydrotest wastewater would be disposed either by discharge to land, discharge to surface water, or discharge to a POTW (Section 2.1.8).

2.1.2.6 Pipeline Pullback

After reaming operations and preliminary hydrotesting are completed, the welded pipe string (pull section as seen in Figure 2-5C) would be pulled into the open West Work Area borehole using the drill rig located in the East Work Area. The pullback process would be similar to the reaming phase except that the pull section would be connected to a reamer, thus minimizing forces on the pull section of pipe. This reamer would then be used to pull the pipeline string back through the borehole to the east side of the River. The pull section would be supported by positioned pipeline rollers along the pipeline string in the West Work Area and Pipe Staging Area as it is pulled into the borehole. Cranes or

sideboom pipelayers with cradles would also support the pipeline as it enters the borehole. The lead crane or sideboom pipelayer would be used to align the pipe pullback string to the borehole. Figure 2-8 shows a photograph from a recently completed similar, but unrelated, project showing a 24-inch diameter pipeline being guided into the borehole during pullback. The proposed Project's pipeline would be a 26-inch diameter pipeline and it would be similar to the one in the image.

Figure 2-8. Photograph of an Example Cranes with Cradles Supported Pipeline (24-inch Diameter) During Pullback

A temporary crossing would be installed over the unnamed wetland channel that occurs in the West Work Area. The temporary crossing would allow a more direct access route between the Pipe Staging Area and the West Work Area during the HDD operation and would provide workspace for the pipe string to be positioned near the exit pit before beginning the pullback operations.

The contractor would determine if a crossing would be used over the unnamed excavated channel, and if so, the type and dimensions. However, the typical type of temporary bridge available for rent consists of steel beams, plates, and railings on top of footings on crane mats, gravel, or additional steel beams to

help distribute the bridge loads on the ground. Figure 2-9 shows an example of a temporary bridge that might be used for the Project. As an alternative to the temporary crossing, additional cranes or sideboom pipelayers may be used to move the pipe string across the channel. After pipeline pullback, a small diameter pipe or tube would be inserted into the annulus between the borehole and the pipeline, and a cement slurry plug would be pumped into the annulus. At least 100 feet of annulus would be grouted at each end of the HDD borehole.

Figure 2-9. Example of a Temporary Bridge

2.1.3 Pipe Ramming Work Areas

The pipe ramming method would be used to install a 91-foot-long section of the 26-inch-diameter pipeline under Suscol Creek to avoid impacts to the waterway (Figure 2-10). Pipe ramming would take place west and immediately adjacent to the existing road that crosses the Creek. In addition, tie-in trenches would be excavated adjacent to the existing roadway south of Suscol Creek.

Figure 2-10. Photograph of Suscol Creek at Pipe Ramming Alignment

2.1.4 Pipe Ramming Method

Pipe ramming would consist of using a pneumatic hammer to drive the assembled pipeline horizontally through the soil at a minimum depth of 8 feet below the bed of Suscol Creek. Equipment used in pipe ramming would include a crane, excavators, air compressors, a pneumatic hammer, and welding equipment (Trenchlesspedia 2021). Figure 2-11 illustrates the pipe ramming process, and Figure 2-12 shows a typical pipe ramming worksite.

To perform the pipe ramming installation, two pits would be excavated on either side of Suscol Creek. Each pit would be approximately 50 feet long, 25 feet wide, and 17 feet deep. These excavations would have vertical walls supported by shoring in accordance with California's Occupational Safety and Health Administration (Cal/OSHA) requirements. Shoring would be monitored for horizontal and vertical movements and supervised by a geotechnical engineer (Appendix H). Soils excavated from the pits would be stockpiled in the East Work Area and would be used for backfilling the pits after the pipeline is installed.

Figure 2-11. Diagram of Pipe Ramming Process

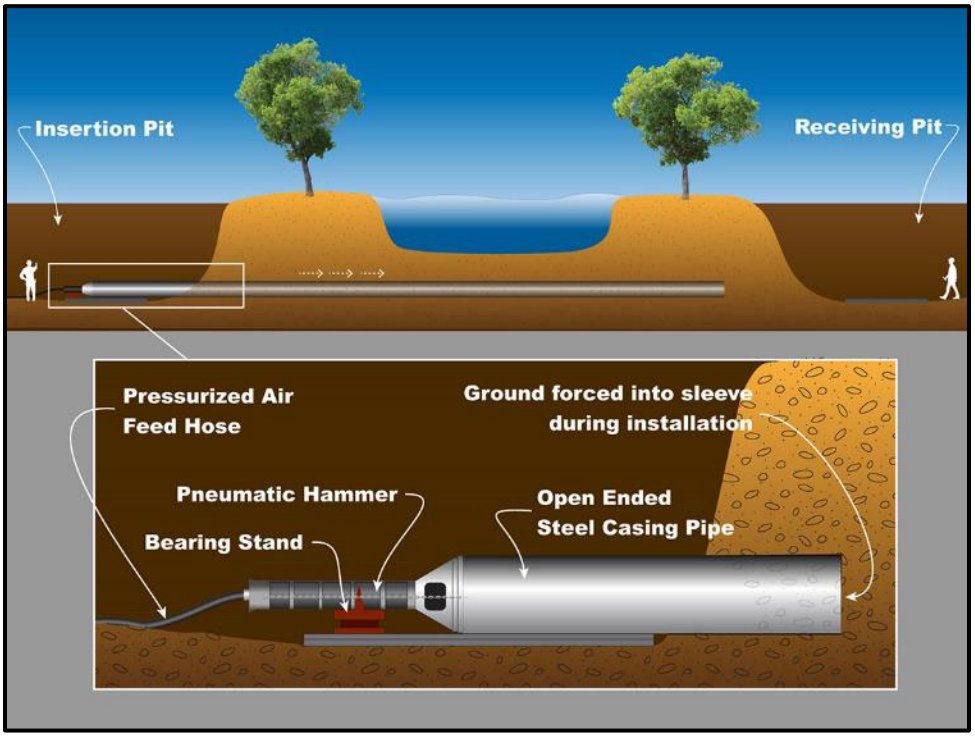
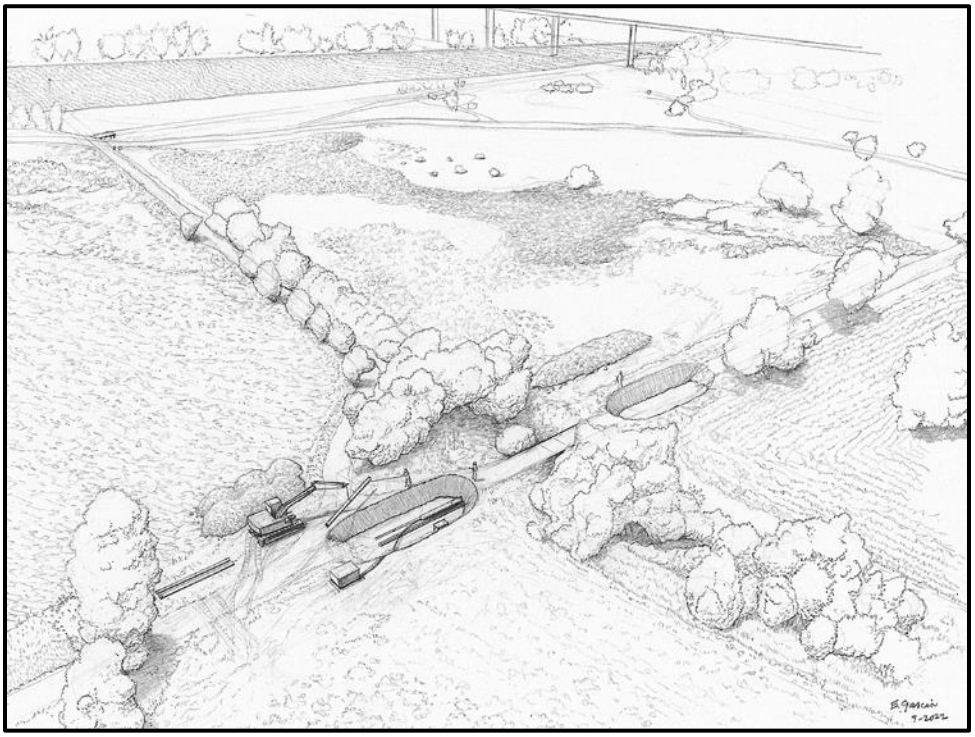


Figure 2-12. Conceptual Pipe Ramming Worksite at the Suscol Creek Crossing



A segment of pipe approximately 20 feet long would be lowered into the insertion pit and placed on a support that positions the pipe segment along the intended alignment. A pneumatic hammer would drive the pipe segments horizontally into the soil between the two excavated pits. Once the first segment of pipe is driven the appropriate distance, a new segment of pipe would be lowered into the insertion pit and welded to the previously driven segment. This process would be repeated until approximately 90 feet of pipeline is installed. Liquid epoxy coatings would be applied over each welded area and both the welds and coatings would be inspected as required by federal and state regulations and PG&E's standards. Once the pipeline is installed, soil would be removed from the interior of the pipeline using pigs with compressed air or an auger without putting force on the sidewalls of the pipe and damaging its interior.

2.1.5 Trench Installed Pipeline and Tie-In

To complete the replacement of the L-021A pipeline crossing, segments of pipe would be installed using open cut trenching between the sections installed by the HDD and pipe ramming methods. Trench installation is a traditional construction method using excavators, cranes, and loaders to lower sections of pipe and pipe fittings into the trenches to be welded and coated with liquid epoxy, as described in Section 2.1.2.5. Approximately 600 feet of 26-inch-diameter pipe and 1,040 feet of 4-inch-diameter pipe would be trench installed in the East Work Area. Approximately 30 feet of 26-inch-diameter pipe would be trench installed in the West Work Area. Trenches would be dug down to approximately 5 feet and would run parallel to existing access roads and through open pasturelands. All excavations would be stabilized as required by Cal/OSHA regulations, which may include sloping, use of shoring, or trench shields. Soil excavated from the trenches would be stockpiled within the adjacent work areas to be used for backfilling and site restoration when the Project is completed.

Trenches would also be excavated for final pipeline tie-in (connecting) locations between the newly installed sections of pipeline and the existing pipeline network. Pipeline tie-ins would be completed with heavy equipment and would require temporary excavation to expose the existing pipeline and provide space for welding. Figure 2-1 illustrates the trench installed pipelines' locations and Table 2-7 includes these excavations as part of each work area's footprint.

Before disconnecting the existing pipeline and clearing the pipeline to prepare it for the tie-ins, compressed natural gas (CNG) may be delivered to temporarily

provide PG&E customers with natural gas service while service is disconnected from the pipeline network as the pipeline will be cleared. The goal of delivering CNG is to avoid any disruption of natural gas services to the PG&E customers. CNG equipment may be delivered to four locations on Stanly Lane and placed in a designated staging area adjacent to existing above ground pipeline injection points. These would all be within developed or disturbed areas that include paved areas or dirt parking lots. No excavation would be necessary for delivery of the CNG. If needed, temporary construction mats may be placed under the CNG equipment and temporary security fencing may be installed around CNG locations within PG&E pipeline rights-of-way.

To begin the tie-in work, natural gas would be removed from the existing pipeline with nitrogen or other inert gas. Then the existing pipeline would be cut at the tie-in locations, and short sections of the existing pipeline would be removed to provide space for the new pipeline to be connected. Segments of the existing pipeline to be left buried in place would be capped on each end and filled with cement slurry before being left in place on land outside of the CSLC jurisdiction (Section 2.2.2.3).

Once all of the replacement pipeline sections have been installed and tied into the existing pipeline network, the replacement pipeline would be filled with water and hydrotested in accordance with federal, State, and PG&E standards before connecting the final joint to the existing pipeline network. The hydrotest pressure would be at least 1.5 times the pipeline Maximum Allowable Operating Pressure, and the test duration would be at least 8 hours. If the pressure within the pipeline section being tested falls below the minimum test pressure during the hydrotest, or if there are visible signs of leakage, the test would be considered failed, and repairs would be made before performing another hydrotest.

Once a successful hydrotest is complete, the water would be removed from the pipeline and disposed of at an approved location (Section 2.1.8). The final pipe joints would then be cut to the appropriate length and welded between the existing and new pipeline segments to complete the tie-in. The final tie-in welds would be coated with a liquid epoxy coating. At this point, gas would be reintroduced into the pipeline and the pipeline would be put into operation.

When the replacement pipeline would first be operated, the odor levels of the natural gas in the pipeline would be tested at both tie-in locations. Additional odor would be injected as required to maintain the appropriate odor level. Newly installed pipelines must be conditioned after installing them to make sure

natural gas can be detected if there is a leak. Odor fade occurs due to a chemical process that occurs when the added odorant in natural gas pipelines is absorbed by the new steel, causing the loss of odor to a level that the natural gas becomes undetectable. To protect against potential odor fading, the natural gas odor conditioning and monitoring process would be implemented as a safety measure.

2.1.6 Pipeline Marker Installation

Pipeline markers would be installed on the west and east riverbanks (on land) along the replacement pipeline alignment at regular intervals so that at least one marker is visible from anywhere along the pipeline alignment (Figure 2-1). Pipeline markers have a diagonally orange and white striped paddle and decals on a galvanized steel post with a concrete footing. The pipeline markers mark the location of the buried natural gas pipeline and have PG&E's emergency contact information.

2.1.7 Site Restoration

All Phase 1 materials, equipment, and debris would be removed from the Project area, and all work sites would be restored to pre-Project conditions; however, final site restoration to pre-Project conditions would happen after the Phase 2 decommissioning is complete. Phase 1 work areas that do not overlap with the Phase 2 work areas would be restored before or parallel with the Phase 2 decommissioning. All site restoration would be completed complying in accordance with provisions established in conjunction with approval of pending temporary construction easements.

Phase 1 excavations in the East and West Work Areas would be backfilled with native soils that would be stockpiled from the initial excavations. Fill may also be imported as needed for backfilling in addition to the native soils. The excavations would be compacted to match the surrounding undisturbed areas and contours restored to the pre-Project conditions.

2.1.8 Water and Waste Disposal Requirements

Approximately 300,000 gallons of freshwater would be required to produce the necessary drilling fluids and about 100,000 gallons would be required for hydrotesting. This water may be reclaimed water from the nearby wastewater treatment facility, water from a nearby residential or agricultural well, or a municipal water source. Water from one or more of these potential sources would be trucked to the Project area from off-site.

Residual drilling fluid and solids would be characterized and disposed of by trucking to an appropriate waste disposal site. It is assumed residual drilling fluid and cuttings would be considered non-hazardous waste and would be trucked to an appropriate, licensed PG&E approved waste facility compliant with all State standards for disposing hazardous and non-hazardous waste.

Hydrotest wastewater and groundwater removed from excavations would be disposed either by discharge to land, discharge to surface water, or discharge to a Publicly Owned Treatment Works (POTW) (i.e., Municipal Wastewater Treatment Plant). Discharge to land or surface water would be performed in accordance with the standing general permit for gas utility construction projects issued by the California State Water Resources Control Board (*Statewide General Order for Discharge from Natural Gas Utility Construction, Operations, and Maintenance Activities, Order WQ 2017-0029-DWQ, General Order No. CAG670001*). Specific testing and filtration requirements are outlined in this order.

Discharges to land may be through beneficial reuse or direct discharge. Beneficial reuse includes dust suppression and soil conditioning during backfill and compaction. Direct discharge to land would be through perforated pipe or sprinklers laid on the ground.

Discharges to surface water may occur at several locations on the River and Creek, depending on the wastewater generated location to keep discharge points in proximity to generation points. Consistent with successful implementation of previous projects and to eliminate potential for erosion, plastic sheeting would be laid down within authorized work areas of the bank at the surface water discharge location. Weighted anchors would be placed on the plastic to secure it in place and then secured to the bank to ensure they remain in place. Discharge water would pass through the discharge line to a T-shaped slotted well screen diffuser pipe ensuring low flow discharge to the plastic sheeting protected bed or bank.

To ensure water quality of the receiving water body, the water would be tested as required by permit conditions. Water would be stored on-site in tanks to allow for settling of sediment and treatment by filtration system before discharge. Any discharge to a POTW would require a permit to discharge to that specific facility with sampling and filtration being completed in accordance with the facility's requirements.

If discharge to land, surface water, and POTW are all not feasible (due to water quality, volume, or other factors), groundwater and hydrotest wastewater may be characterized and transported by PG&E's authorized waste hauler for disposal at a permitted offsite wastewater treatment and disposal facility.

All solid waste would be disposed of at California state licensed, PG&E approved, disposal facilities. Sections of pipe removed at the tie-in locations would be stored in the Project staging area(s) pending characterization for hazardous materials. Hazardous materials such as spent sand blast media, any impacted soil, or other incidental hazardous materials, would be placed in appropriate bins or drums, sampled, and characterized. Sections of pipe or non-hazardous waste would be transported to a recycling facility once the characterization results prove that recycling is feasible.

2.2 PHASE 2 (PIPELINE DECOMMISSIONING)

2.2.1 Pipeline Segment Descriptions, Activities and Final Dispositions

Once the replacement pipeline has been installed and connected to the existing pipeline system, the existing L-021A pipelines (see Section 1.5.3) would be decommissioned. Within the Project area, the existing L-021A components consist of a single, buried 26-inch-diameter pipeline that transitions to a 12-inch-diameter pipeline approximately 350 feet northwest of the River crossing. The 12-inch-diameter pipeline surfaces at an exposed manifold on the west bank of the River. From there the L-021A pipeline branches into three, 8-inch-diameter pipelines (L-021A, L-021A-1, and L-021A-2) underneath the River and then merges back into a single 12-inch-diameter pipeline at a manifold on the east bank of the River. The 12-inch-diameter pipeline extends east from the manifold approximately 12 feet and then transitions again to a 26-inch-diameter pipeline. In addition, a 4-inch-diameter distribution feeder main (DFM-0406-03) pipeline branches off the 26-inch-diameter pipeline approximately 37 feet after the final transition. The 26-inch-diameter pipeline continues underground, east across Soscol Ferry Road and under the Union Pacific Railroad (UPRR) into an irrigated pasture where it terminates at the eastern tie-in location.

For planning purposes, Phase 2 is addressed in five segments illustrated in Figure 2-13. The segments are numbered sequentially from the western end to the eastern end of the pipeline, and their dimensions and final dispositions are discussed in the sections below.

2.2.1.1 Segment 1 – West Field Segment

Segment 1 (Figure 2-14) consists of the 26-inch-diameter pipeline beginning where the existing pipeline would be cut and capped during Phase 1 adjacent to the western tie-in location. Segment 1 extends east approximately 1,259 feet where it transitions into a 12-inch-diameter pipeline and continues until just west of the pipe manifold on the west bank of the River. Segment 1 is buried approximately 4.5 to 7.2 feet deep. Segment 1 would have the natural gas removed, pigged to remove any free liquids, then filled with cement slurry, capped on both ends, and left buried in place.

2.2.1.2 Segment 2 – River Crossing Segment

Segment 2 (Figure 2-15) begins at the River's west bank and continues east beneath the River approximately 483 feet to the waterline on the east bank of the River. Segment 2 includes all three 8-inch-diameter pipelines. Segment 2 is buried approximately less than 1 foot to 17.2 feet deep under the riverbanks and riverbed. In-water work in the River would be conducted within the agency approved aquatic work windows (August 1 to October 31). This coincides with the timeframe when the aquatic work area is least likely to support special-status fish species based on seasonal migration and spawning periods.

Segment 2 would be removed in its entirety, including the pipeline manifolds and valves on both sides of the River, and the concrete valve box on the east side of the River. Figure 2-15 shows Segment 2 alignment in the River from the west bank, and Figures 2-16 and 2-17 show the pipe manifolds on both riverbanks. The pipe manifold on the east bank is contained in a concrete valve box (Figure 2-17).

Figure 2-13. Phase 2 Project Overview

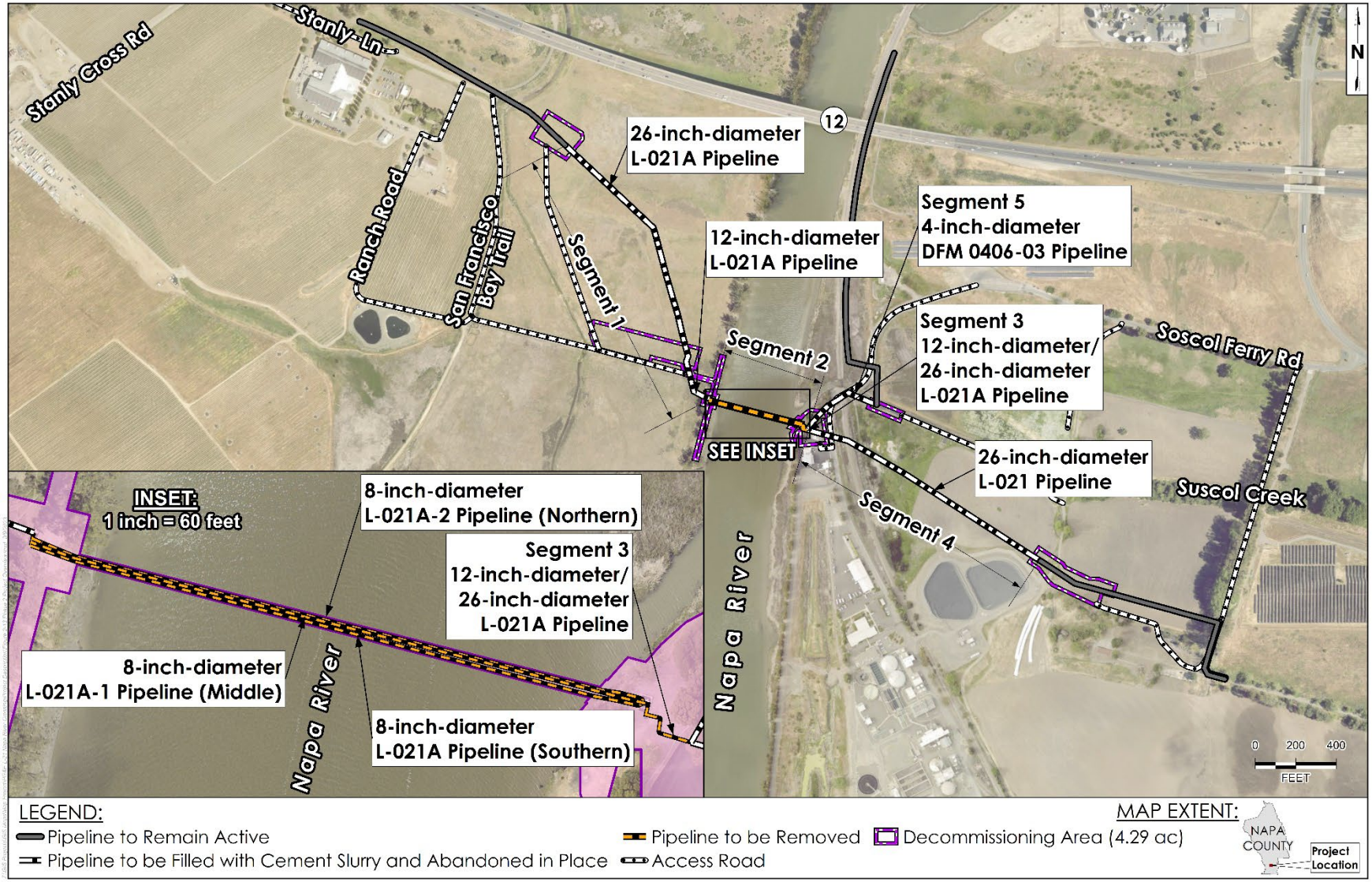


Figure 2-14. Photograph of the Segment 1 Pipeline Alignment Area

Figure 2-15. Photograph of the Segment 2 Alignment across the Napa River

Figure 2-16. Photograph of the Pipe Manifold on the West Side of Segment 2

Figure 2-17. Photograph of the Pipe Manifold and Concrete Valve Box on the East Side of Segment 2

2.2.1.3 Segment 3 – East Transition Segment

Segment 3 (Figure 2-18) begins where Segment 2 ends on the east bank of the River between the valve box and the NapaSan chain-link fence and consists of 12 feet of 12-inch-diameter pipeline and 37 feet of 26-inch-diameter pipeline. All of Segment 3, which is buried approximately 5.5 feet, would be removed.

2.2.1.4 Segment 4 – East 26-inch-Diameter Segment

Segment 4 (Figure 2-19) begins at the eastern end of Segment 3, where the 4-inch-diameter DFM-0406-03 pipeline branches off and continues to the eastern tie-in location at the existing L-021A pipelines. Segment 4 is buried approximately 4.5 feet deep and consists of approximately 1,326 feet of 26-inch-diameter pipeline that would have the natural gas removed, pigged, then filled with cement slurry, capped at both ends, and left buried in place.

2.2.1.5 Segment 5 – 4-inch-Diameter Distribution Feeder Main Segment

Segment 5 (Figure 2-20) consists of 423 feet 4-inch-diameter DFM-0406-03 pipeline which branches off from the L-021A pipeline at the boundary of Segment 3 and Segment 4. Segment 5 is buried approximately 7.0 feet and would have the natural gas removed, pigged, and then filled with cement slurry, capped at both ends, and left buried in place.

2.2.1.6 Phase 2 Equipment and Personnel Requirements

Table 2-4 estimates Phase 2 equipment requirements. Table 2-5 estimates Phase 2 material pickups and deliveries. Table 2-6 estimates Phase 2 personnel requirements.

2.2.2 Phase 2 Decommissioning Methods

Decommissioning processes and removal methods for each affected segment of the existing pipeline are discussed below. See Appendix D, Project Plans for additional details.

Figure 2-18. Photograph of Segment 3 Removal Area

Figure 2-19. Photograph of the Segment 4 Alignment Area

Figure 2-20. Photograph of Segment 5 Alignment Area

Table 2-4. Phase 2 Estimated Equipment Requirements

Equipment Type	Quantity	Horsepower	Operating Hours per Day	Days
Light-Duty Truck (Crew)	6	200	2	110
Light Plant	4	15	6	80
Air Compressor (185 cfm)	2	50	2	80
Water Pump	1	20	2	50
Concrete Pump	1	250	4	2
Welding Machine	1	20	8	6
Hydrojet Truck	1	300	6	4
Hydroexcavator	1	300	6	2
Excavator	2	310	8	30
Wheeled Loader	2	240	8	30
Dozer	1	310	8	14
Survey Vessel	1	270	10	2
Derrick Barge Crane	1	330	12	30
Derrick Barge Generator	1	100	12	30
Support Tug Mains	1	500	2	30
Support Tug Generator	1	75	12	30
Crew Boat Mains	1	100	2	30
Crew Boast Generator	1	50	2	30
Diving Air Compressor	1	50	3	30
Toyo Pump Generator	1	400	4	30

Table 2-5. Phase 2 Pickup and Delivery Estimates

Item	Trips	One-Way Miles per Trip
Portable Tank Deliveries/Return	14	40
Heavy Equipment Mobilization/Demobilization	20	60
Water Deliveries / Disposal	20	40
Concrete Deliveries	6	40
Shoring Deliveries/Return	6	40
Solid Waste Disposal	20	40
Vacuum Trucks	10	40
Marine Spread Mobilization/Demobilization	10	50

Table 2-6. Phase 2 Personnel Requirements

Task	Quantity	Hours per Day	Days
Site support/Project Manager	3	12	110
Excavation	6	10	30
Backfill/Site Restoration	6	10	14
Terrestrial Decommissioning	4	10	60
Riverine Decommissioning	12	12	30
Survey	2	10	2

2.2.2.1 Pre-Project Debris Surveys and Notifications

A pre-Project bathymetric and surficial features debris survey of the entire underwater worksite would be performed before starting in-water decommissioning activities. This debris survey would serve as the baseline survey to compare it to a post-construction debris survey to ensure that the site is restored to the pre-Project conditions. Anticipated notifications include pre-excavation 811 (DigAlert) and the U.S. Coast Guard Local Notice to Mariners.

2.2.2.2 Pipeline Pigging and Flushing

Before starting decommissioning activities, pipeline Segments 1 through 5 would be pigged and flushed to remove any remaining contaminants. For Segments 1, 3, 4, and 5, pigging and flushing would consist of pressing foam pigs through the pipeline segments with air. Water and cleaning chemicals may be placed between pigs to assist with pigging, as needed.

Segment 2 pipelines under the River contain smaller piping inside of them, which prevents the use of traditional pigging and flushing methods. Segment 2 would be cleaned using a hydrojetting method, which would involve inserting a hose

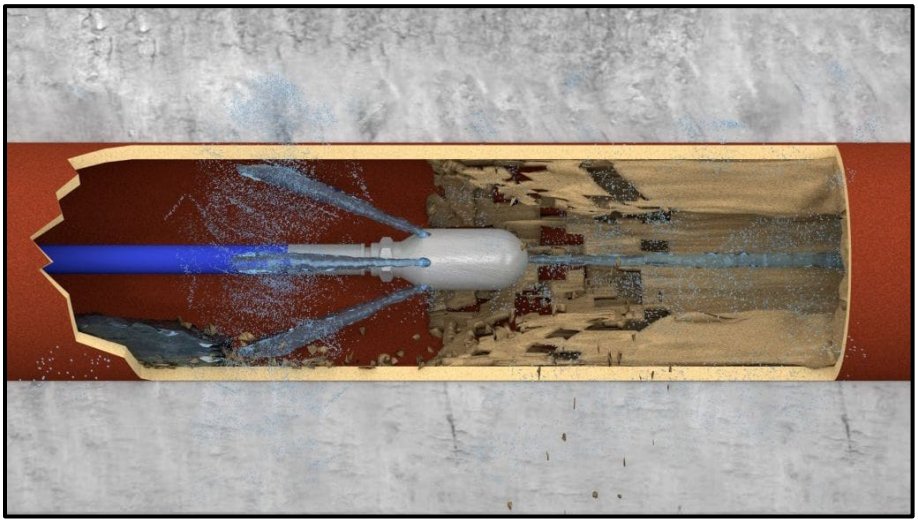
and nozzle that would spray high pressure water into the pipeline to clean the interior.

Pigging and flushing would be performed for individual pipeline sections because of how the pipelines branch and change in diameter. Within Segment 1, the 26-inch-diameter and 12-inch-diameter pipelines would be pigged separately instead of at the same time due to the interior pipeline diameter change, and therefore, the change in the diameter of the pig necessary to clean it. The 26-inch-diameter pipeline in Segment 3 and Segment 4 would be pigged together, but the 4-inch-diameter pipelines in Segment 5 would be pigged separately. In preparation for this activity, the end of each section of the pipeline to be pigged would be excavated and flanges would be installed to connect the pig launchers and receivers. To facilitate pigging and flushing, each of the sections would require a water truck, temporary tanks, pump, an empty vacuum truck, and temporary hoses and fittings that would connect to the pig launchers and receivers.

Pigs would be inserted into the pig launchers and pushed through the pipeline by water pumped into the launcher and pipeline behind the pigs. When pigs reach the receiver, the pump would be shut off and a sample of water remaining in the pipeline would be taken for measuring the level of total petroleum hydrocarbon (TPH) within the pipeline. The water sample would be sent to a State-certified testing laboratory. The existing pipeline segments would then be pigged and flushed until the flush water has a TPH content of less than 15 parts per million (ppm).

To perform the hydrojetting within Segment 2, the three, 8-inch-diameter pipelines would be cut at the west and east manifolds, and the manifolds would be removed to access the open ends of each pipeline. Hydrojetting requires a specialized hydrojetting truck that consists of a water tank, pump, hose, and hose reel. A nozzle on the end of the hose would be inserted into the open end of each pipeline in Segment 2, and then the hose would be fed through each pipeline as the nozzle sprays high pressure water, and cleaning detergents, if necessary, onto the pipe walls (Figure 2-21). A vacuum truck would be periodically attached to the end of each pipeline to remove the flush water. Once each pipeline has been cleaned, a soft foam pig would be inserted, the end would be capped, and compressed air would be used to push the pig to the other side to remove as much water as possible. A water sample would be collected and tested for levels of TPH, as detailed above.

Figure 2-21. Example of Hydrojetting Nozzle Cleaning the Inside of a Pipe



Source: Georgia Rooter, Hydro jetting Services, 2023

Approximately 20,000 gallons of water would be required for pigging and flushing the five pipeline segments. The water may be reclaimed water from the nearby wastewater treatment facility, water from a local well, if possible, or a municipal water connection such as a fire hydrant with a temporary water meter installed on it. Flush water generated by pigging and flushing operations would be fully contained within piping, valves, and temporary tanks. The pipeline flush water is not anticipated to be released into the environment since flushing would be conducted at much lower pressures than currently present in the active pressurized pipeline. Figure 2-22 is a photograph of a typical pig receiver and associated equipment from a previous project.

2.2.2.3 Cementing

Segments 1, 4, and 5 would be filled with cement slurry and left in place upland outside of CSLC jurisdiction, as described in Section 2.2.1. Flanges designed to facilitate cement pumping operations would be temporarily welded onto the ends of each segment to be abandoned underground. Cement slurry would be pumped into each segment using a trailer mounted cement pump that would push the cement through the entire pipeline. The cement slurry would be allowed to cure, flanges would be removed, and finally the 0.5-inch-thick steel plates would be welded onto the open ends to complete leaving in place. Excavations at the end of each segment would be backfilled with the native stockpiled soils and the site would be restored, as described in Section 2.2.2.7. No new backfill soil is proposed.

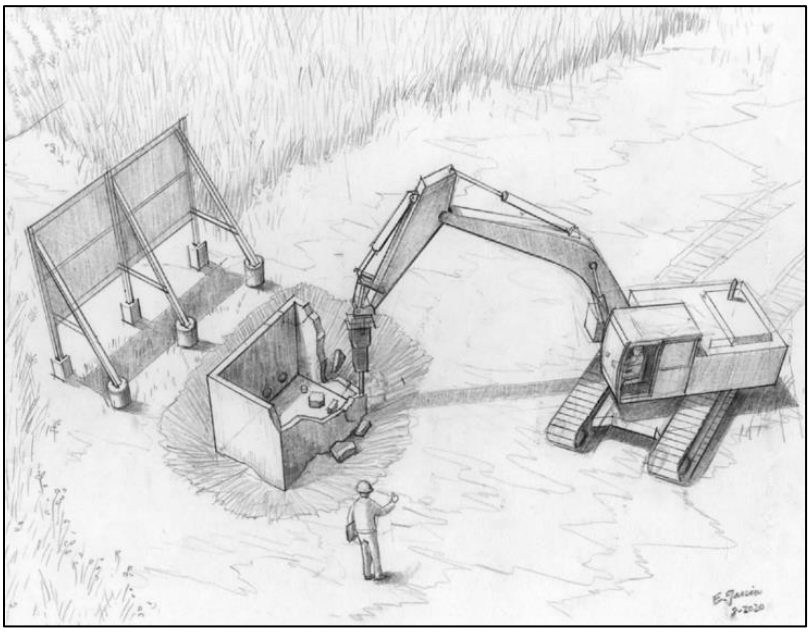
Figure 2-22. Photograph of a Typical Pig Receiver and Associated Equipment

2.2.2.4 Terrestrial Pipeline and Valve Box Removal

The entire terrestrial portions of Segments 2 and 3 would be removed, as described in Sections 2.2.1.2 and 2.2.1.3. Before terrestrial pipeline excavation, up to 0.03 acres of vegetation on the riverbanks would need to be removed to get the equipment there to remove Segment 2. No vegetation would need to be removed for removing Segment 3 because it is entirely within a disturbed or developed area. Conventional terrestrial excavation equipment (Table 2-4) would be used to remove the terrestrial pipeline of Segments 2 and 3 (Table 2-5) by exposing the pipe, cutting the pipe, extracting the pipe with excavation equipment, backfilling, and compacting the soils. The excavation equipment would be used to load the removed and cut pipe sections onto trucks so they can be disposed of at an approved disposal facility.

The concrete valve box on the east bank of the River would be demolished using an excavator-mounted hydraulic concrete breaker. The excavator would then remove the concrete debris with its bucket and load it onto trucks to take it to an approved disposal facility. Figure 2-23 illustrates the work area of a typical demolition of concrete valve box.

Figure 2-23. Artist's Depiction of Concrete Valve Box Demolition

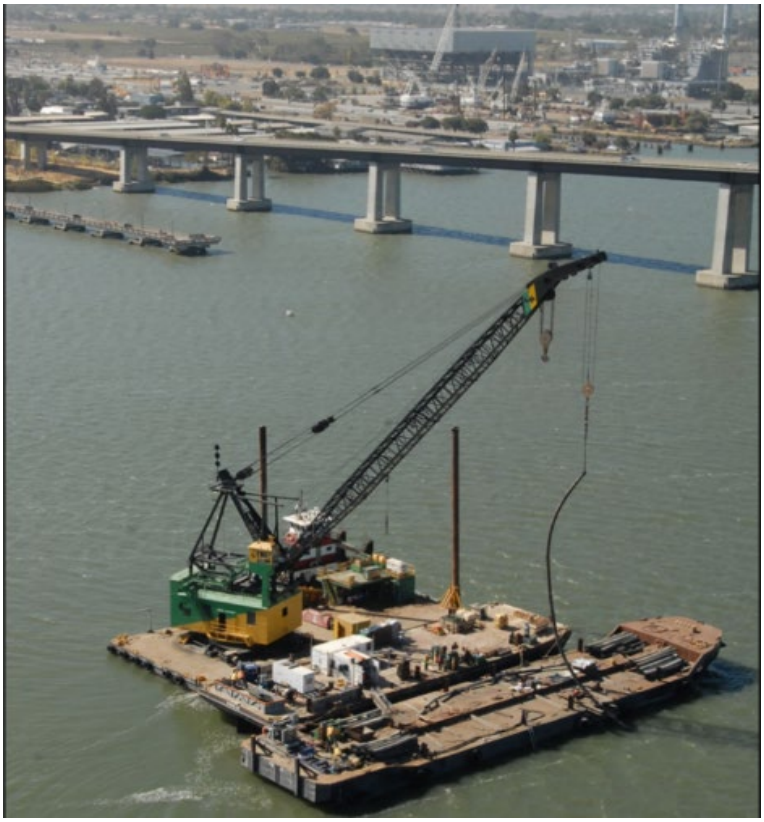


All solid waste would be disposed of at California state licensed, PG&E approved, disposal facilities. Sections of pipe removed would be stored in the Project staging area(s) as it is being evaluated for hazardous materials. Hazardous materials such as soil or other incidental hazardous materials would be placed in appropriate bins or drums and then sampled and tested. Sections of pipe or non-hazardous waste would be transported to a recycling facility once the testing results show that they can be recycled.

2.2.2.5 Submerged Pipeline Removal

A derrick barge with a crane would be mobilized to the worksite to help remove the submerged pipelines under the River (Figure 2-24). The derrick barge would also have equipment to support commercial divers, underwater excavation equipment, and spuds, which are movable steel shafts attached to the derrick barge that are used when lowered to anchor it in place. In addition, a supporting tug, materials barge, crew boat, and support skiffs may also accompany the derrick barge to support different periods of removing the submerged pipeline.

Figure 2-24. Photograph of Derrick Barge Removing a Pipeline During a Previous Pipeline Crossing Decommissioning Project



The barge crane would remove the pipeline from the River by connecting to the end of the buried pipeline, where it was previously excavated and exposed by commercial divers and lifting it vertically out of the riverbed to remove it without excavation, when possible. Pipeline removal would begin in shallow water where the barge crane can easily attach to the end of the pipeline. When underwater excavation is required, it would be limited to the segments of pipeline where the depth of burial or the nature of the River bottom would not allow the pipeline to be removed by vertically lifting it. Underwater excavation would be performed using a submersible dredging pump (Toyo pump) as seen in Figure 2-25, narrowly following the buried pipeline alignment with precision, and would be no deeper than necessary to remove enough excess burden from over the pipeline to facilitate continued removal by vertical lifting (Table 2-8, Excavation 4). It is expected that pipelines can be lifted vertically out of the riverbed without excavation when the pipeline is buried less than 10 feet deep, and that in locations where the pipeline is buried more than 10 feet deep, excavation would only be needed to reduce the overburden to approximately 10 feet. Using these parameters and the survey pipeline depth of burial data

collected in 2021, which shows the pipeline buried between 1 and 17 feet deep (Appendix D), it is estimated that approximately 15 to 20 percent of the sediment above the entire pipeline alignment may require excavation before lifting the submerged pipeline.

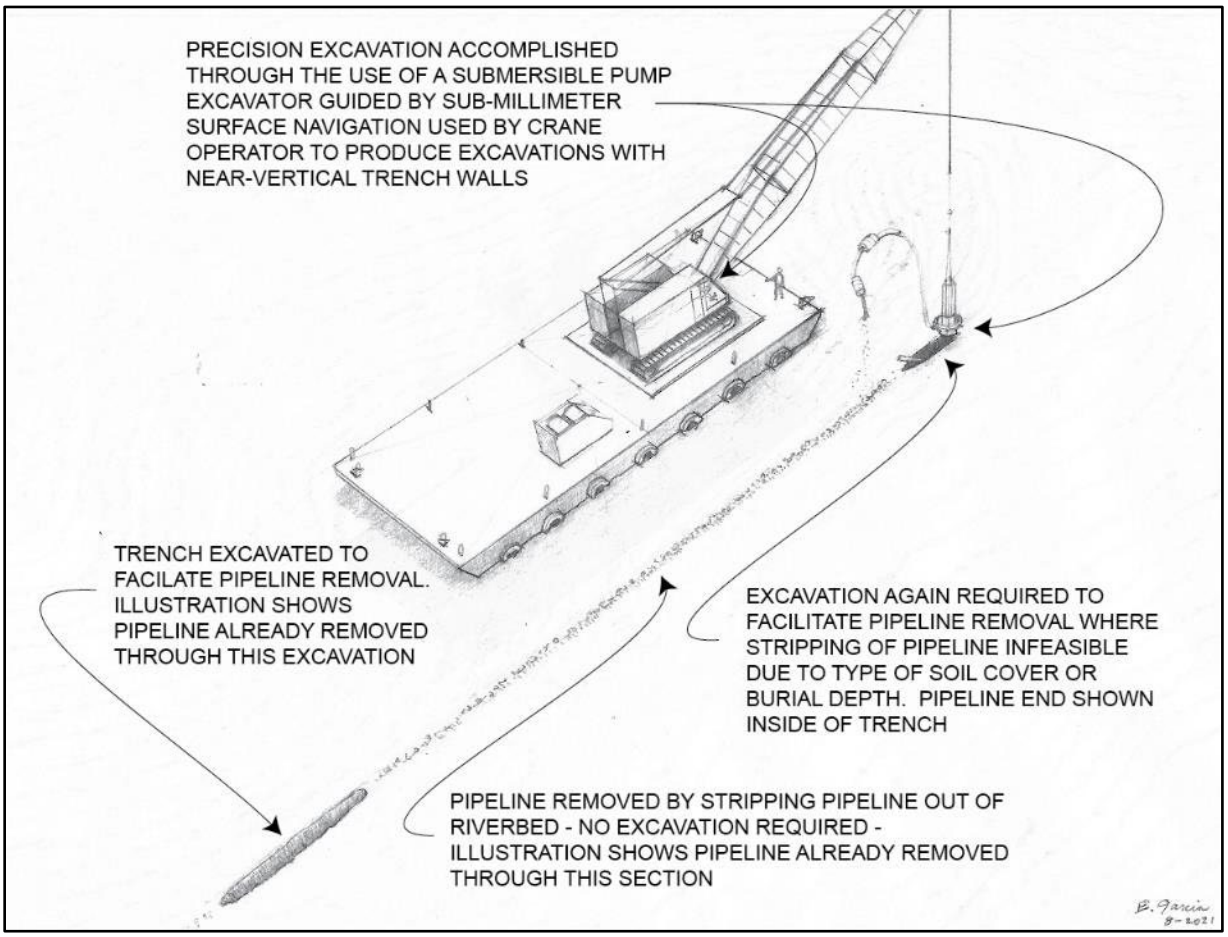
The Toyo pump (Figure 2-25) would be deployed using the barge crane, with the pump's inlet at the bottom. The Toyo pump would pull both sediment and water into the pump inlet, which mix and form a slurry. Hoses connected to the Toyo pump outlet would transport the slurry away from the excavation where the slurry is released back into the water column and the sediment would settle back to the bottom, also known as side-casting.

The barge would be equipped with state-of-the-art navigation equipment allowing the crane to position the Toyo pump (Figure 2-25) precisely over each pipeline's center and be slowly lowered down onto the pipeline to be removed. The Toyo pump would remove sediment as it is lowered, forming a vertical hole along the length of each pipeline approximately 5 feet in diameter in the center of each pipeline (Figure 2-25). Once the Toyo pump inlet reaches the intended depth, it would be pulled back above the riverbed, moved along the pipeline alignment to the next location, and lowered again to repeat the process. This process would create a narrow trench with shear vertical walls in areas where the pipeline is buried greater than 10 feet deep. Once finished, the Toyo pump would be brought back on the barge deck, and the barge crane would continue lifting the pipeline up to the barge and cutting it into sections (Figure 2-24).

The underwater excavation area shown in Appendix D – Project Plans, shows the most conservative case (the largest area possible or the longest alignment possible) of potential excavation required above the pipeline alignment across the entire River. The actual area that would need to be excavated would be a smaller portion (shorter than the full alignment), but the actual in-water excavation area cannot be determined until as-found conditions are determined in the field.

The recovered Segment 2 pipelines would be cut into sections and placed on a barge or truck and cut into smaller segments so they can be taken away on a transport truck. When all other Project activities are complete, the barge would be towed to a local boat landing, where the pipe sections would be offloaded and transported by truck to an approved recycling or disposal facility.

Figure 2-25. Artist's Conception of Toyo Pump Being Used to Perform Underwater Excavation



2.2.2.6 Pipeline River Crossing Safety Sign Replacement and Electronic Test Station Installation

The existing pipeline River crossing safety signs (different from pipeline markers) located on both sides of the River would be removed during valve box demolition.

One electronic test station (ETS) would be installed on the southeastern end of Segment 1 (decommissioned) and connected to the pipeline with electrical wires. An ETS provides an access point above ground to the buried pipeline and can be used to connect pipeline locating equipment in case the pipeline needs to be located or identified in the future. Segments 4 and 5 pipelines (decommissioned) would be connected to existing ETSs.

2.2.2.7 Site Restoration and Demobilization

Terrestrial excavations would be backfilled and compacted to match pre-Project conditions. If final permits or agreements with landowners include more stringent backfill and compaction conditions, those conditions would be followed.

In the River, the proposed vertical pipeline removal method would allow the sediment from the River bottom to fall off the pipeline as it is lifted through the water column and fall back into the narrow depression in the River bottom where the pipeline was removed, promoting immediate and natural backfill with the native River sediment.

All site restoration requirements defined in the pending temporary construction easements issued by property owners would be adhered to. All Phase 2 decommissioning materials, equipment, and construction debris and trash would be removed from the Project area.

2.3 ESTIMATED AREAS AND VOLUMES

Table 2-7 provides a summary of excavation footprints that would occur within the three Phase 1 work areas (East, West, and Pipeline Staging) and existing PG&E pipeline station associated with installing the replacement pipeline using the HDD method. See Appendix D, Project Plans for additional detail.

Table 2-7. Excavation Footprints Associated with Phase 1 Activities

Excavation ID	Excavation Dimensions (ft)	Approximate Area (ft^2)	Excavation Volumes (cubic yards)
A	6 x 6	36	7
B	10 x 24	240	73
C	1 x 48	1,150	426
D	10 x 10	100	31
E	6 x 48	255	142
F	25 x 50	1,250	841
G	25 x 50	1,250	817
H	9 x 9	460	173
I	10 x 10	100	19
J	10 x 40	400	137

Excavation ID	Excavation Dimensions (ft)	Approximate Area (ft^2)	Excavation Volumes (cubic yards)
K	10 x 40	400	124
L	1 X 48	35	11
M	10 x 24	240	74
N	10 x 10	100	19
O	6 x 6	36	8
P	1 16	764	212
Q	8 x 26	208	80
R	1 x 16	857	254
S	10 x 16	160	41
	Total	**8,041**	**3,489**

Note: Excavation IDs and dimensions based on 90 percent Design Plans prepared by PG&E dated December 2022, provided in Appendix D – Project Plans.

Table 2-8 provides the excavation footprints associated with Phase 2. See Appendix D, Project Plans, for additional detail.

2.4 WORK SCHEDULE

The entire Project would require approximately six months to complete. Mobilization for the Phase 1 activities is currently planned for the second quarter in 2024, with HDD operations completed by the third quarter of 2024. Then, the Phase 2 activities are currently planned for August through October 2024, which coincides with the seasonal aquatic in-water work window (August 1 through October 31).

Project work activities would generally be conducted Monday through Friday for approximately 10 hours each day, typically from 7 am until 5 pm. Longer shifts or additional shifts may occur, if necessary, to complete the Project within the defined seasonal constraints.

Table 2-8. Excavation Footprints Associated with Phase 2 Activities

Excavation ID	Excavation Dimensions (ft)	Excavation Depth (ft)	Approximate Area (ft^2)	Excavation Volumes (cubic yards)
1	30 x 30	7	900	108
2	40 x 30	8	1,200	164
3	44 x 20	5	880	88
4	395 x 9	5-17	3,555	1,580
5	100 x 20	6	2,000	228
6	30 x 30	7	900	108
7	30 x 30	7	900	108
		Total	**9,960**	**2,310**

Note: Excavation IDs and dimensions based on 60 percent Design Plans prepared by Longitude, 123 dated October 2022, provided in Appendix D – Project Plans.

3.0 ENVIRONMENTAL CHECKLIST AND ANALYSIS

This section contains the Initial Study that was completed for the proposed Pacific Gas and Electric Company (PG&E) L-021A Napa River Pipeline Crossing Replacement Project (Project) in accordance with the requirements of California Environmental Quality Act (CEQA). The Initial Study identifies site-specific conditions and impacts, evaluates their potential significance, and discusses ways to avoid or lessen impacts that are potentially significant. The information, analysis, and conclusions included in the Initial Study provide the basis for determining the appropriate document needed to comply with CEQA. For the Project, based on the analysis and information contained herein, California State Lands Commission (CSLC) staff has found that the Initial Study shows that there is substantial evidence that the Project may have a significant effect on the environment, but revisions to the Project would avoid the effects or mitigate the effects to a point where no significant effect on the environment would occur. As a result, CSLC has concluded that a Mitigated Negative Declaration (MND) is the appropriate CEQA document for the Project.

The evaluation of environmental impacts provided in this Initial Study is based in part on the impact questions contained in Appendix G of the State CEQA Guidelines (California Code of Regulations, title 14, section 15000 et seq). These questions, which are included in an impact assessment matrix for each environmental category (Aesthetics, Agriculture and Forest Resources, Air Quality, Biological Resources, etc.), are "intended to encourage thoughtful assessment of impacts." Each question is followed by a check-marked box with column headings that are defined below.

Potentially Significant Impact. This column is checked if there is substantial evidence that a Project-related environmental effect may be significant. If there are one or more "Potentially Significant Impacts," a Project Environmental Impact Report (EIR) would be prepared.

Less than Significant with Mitigation. This column is checked when the Project may result in a significant environmental impact, but the incorporation of identified Project revisions or mitigation measures would reduce the identified effect(s) to a less than significant level.

Less than Significant Impact. This column is checked when the Project would not result in any significant effects. The Project's impact is less than significant even without the incorporation of Project-specific mitigation measures.

No Impact. This column is checked when the Project would not result in any impact in the category, or the category does not apply.

The environmental resource areas listed below would be potentially affected by this Project. These were identified because there would be at least one impact that would be a "Potentially Significant Impact," but PG&E has agreed to Project revisions, including the implementation of mitigation measures, that would reduce the impact to "Less than Significant with Mitigation."

Environmental Resource Areas with Potentially Significant Impacts:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Cultural Resources – Tribal
- Geology, Soils, and Paleontological
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Recreation
- Transportation
- Mandatory Findings of Significance

Detailed descriptions and analyses of impacts from Project activities and the basis for their significance determinations are provided for each environmental factor on the following pages, beginning with Section 3.1, Aesthetics. Relevant laws, regulations, and policies potentially applicable to the Project are listed in the Regulatory Setting for each environmental factor analyzed in this MND.

AGENCY STAFF DETERMINATION

Based on the environmental impact analysis provided by this Initial Study:

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

☒ I find that although the proposed 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 proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

Signature

8/15/2023
Date

Afifa Awan, Senior Environmental Scientist
Division of Environmental Science, Planning, and Management
California State Lands Commission

3.1 AESTHETICS

AESTHETICS – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☒	☐	☐

3.1.1 Environmental Setting

The Project area is in a non-urbanized area bordered by grazed pastureland within the California Department of Fish and Wildlife, Napa-Sonoma Marshes Wildlife Area to the south and west, Napa Sanitation District (NapaSan) facilities to the east, and the State Highway 12 bridge over the Napa River (River) to the north (Figure 2-1). The Pipe Staging Area is located along the south side of State Highway 12 and north of Stanly Lane. The Project area continues east through the River into the East Work Area which is located on NapaSan property. Figures 2-2, 2-3, and 2-4 provide photos that show views of the Project area.

Public views of the Project area are limited to motorists on public roadways (Soscol Ferry Road and State Highway 12), boaters on the River, and hikers along the San Francisco Bay and Napa River Trails. The nearest scenic highway is a section of State Highway 12 that includes the Napa River bridge, which is located immediately north of the Project area (Caltrans 2022).

The nearest residences are located east of Migration Winery and approximately 200 feet south of the Pipe Staging Area (Figure 3.1-1). The residences are located south of Stanly Lane at the intersection of Ranch Road and Merryvale Lane.

There are two public walking and hiking trails located adjacent to the Project area. The San Francisco Bay Trail is located adjacent to the western Project area, parallel to the Pipe Staging Area but south of Stanly Lane. Public access on the San Francisco Bay Trail ends at Ranch Road and does not extend through the West Work Area. The Napa River Trailhead is located north of the eastern Project area, along Soscol Ferry Road and the trail heads north and away from the Project area along the River parallel to the railroad tracks. Neither the San Francisco Bay Trail nor the Napa River Trail occur within the Project area.

Lastly, the Napa County Airport is located approximately 1 mile south of the eastern staging areas and contributes to the aesthetic conditions of the Project area.

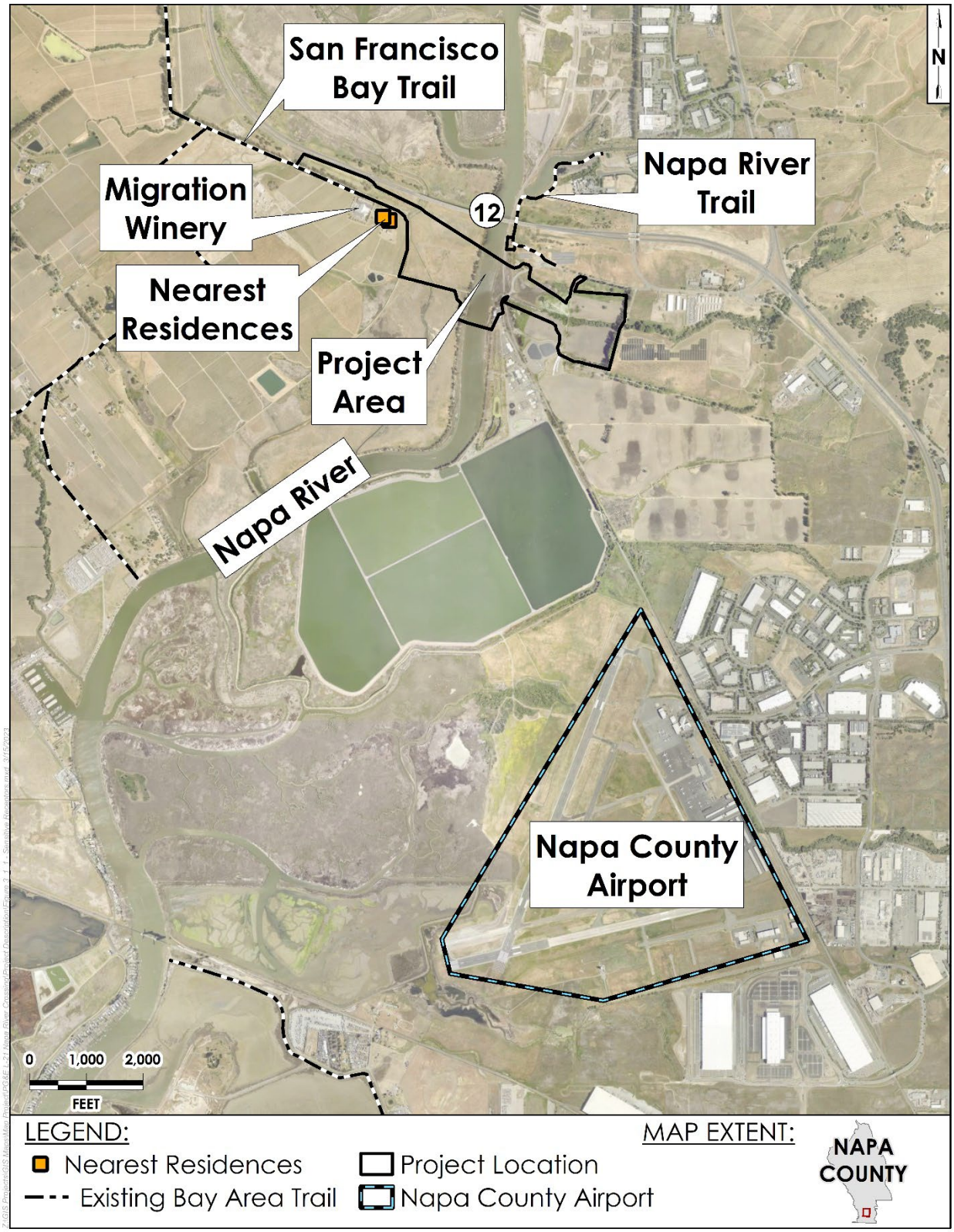
3.1.2 Regulatory Setting

There are no major federal laws, regulations, or policies applicable to the Project regarding aesthetics. State laws and regulations pertaining to aesthetics and relevant to the Project are identified in Appendix A. At the local level, policies and programs are identified in Appendix B.

3.1.3 Impact Analysis

Project-related construction equipment and vessels on the River would be temporarily visible from public and private roads, the Napa-Sonoma Marshes Wildlife Area property, the Napa River Trail and San Francisco Bay Trail.

Figure 3.1-1. Sensitive Receptors Map



a) Have a substantial adverse effect on a scenic vista?

Less than Significant Impact

The proposed Project is located near or within the viewshed of a scenic vista. The Project area can be viewed from public roads (State Highway 12, Soscol Ferry Road, Stanly Lane) and at least partially viewed from the Napa-Sonoma Marshes Wildlife Area property, Napa River Trail, and the San Francisco Bay Trail. In addition, boaters on the River would temporarily be able to see the Project barge and equipment. However, obstructions to this viewshed would be limited to short durations when construction equipment is present (approximately 30 days of work on the River). Construction equipment would be demobilized (moved offsite) between Phase 1 and Phase 2, so there should be no adverse effect to scenic vistas between the two phases. After construction activities are complete, the Project area would be restored to pre-Project conditions, and no permanent structures would remain within the viewshed.

During the operational phase of the Project, pipeline markers indicating the presence of a buried natural gas pipeline would be installed on the west and east riverbanks (on land) along the replacement pipeline alignment so that at least one marker is visible from anywhere along the pipeline alignment. Although similar signage presently exists at the Project location to mark the current pipeline alignment, replacement markers would be smaller in size. Therefore, replacement pipeline markers would result in less impacts to scenic vistas.

As a result of the temporary nature of Project-related activities (approximately 6 consecutive months for both Phase 1 and Phase 2), site restoration activities after the construction, and less visible smaller pipeline markers, there would be a less than significant impact to the scenic vistas within the area.

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 Project would not damage or remove any trees, scenic landforms, rock outcroppings, or historic buildings. Although the Project site is visible from the scenic portion of State Highway 12 that includes the Napa River bridge, the Project is temporary and includes no above-ground permanent elements, other than pipeline markers, that would be visible after construction is complete. No

permanent impacts to scenic resources would occur. Therefore, the impact would be less than significant.

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

Public views of the Project area are limited to motorists on public roadways, boaters on the River, and hikers along the San Francisco Bay Trail and the Napa River Trail. Project activities would temporarily introduce terrestrial and marine construction equipment to these public viewsheds. However, the Project is short-term, and there are no permanent above-ground structures, other than smaller pipeline markers, that would be visible after the Project is complete. Vegetation removal necessary for the Project would occur on private lands and would not be accessible or visible to the public. Following completion of construction activities, the Project site would be restored to pre-Project conditions. Project-related changes in visual quality would be minor and temporary in nature (up to 6 months). Therefore, the impact would be less than significant.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant with Mitigation

Residential land uses in the Project area are limited to two residences located south of the Pipe Staging Area (Figure 3.1-1). Although Project work activities would be conducted predominantly during daylight hours (from approximately 7:00 a.m. to 7:00 p.m. each workday), limited nighttime operations (a few hours after sunset) may be required, specifically during certain Project components such as pipeline pullback, and to complete the Project within the defined seasonal constraints. If needed, lighting requirements for nighttime operations would adversely affect nighttime views from nearby residences as well as motorists on adjacent roads and highways. In addition, the Napa County Airport is located approximately 1 mile south of the eastern staging areas (Figure 3.1-1). Due to its proximity to the Project area, there is potential for construction-related glare to affect airport operations.

To reduce potential impacts caused by Project lighting, PG&E shall implement the following mitigation measure **(MM) AES-1** to minimize substantial light and glare, limit lighting intensity, and direct all lighting downward and onto specific work areas to ensure potential impacts to daytime or nighttime views in the area are less than significant:

> **MM AES-1: Glare Minimization.** Project lighting shall be as low in intensity as possible to meet Project needs and safety requirements, be focused downward onto work areas, and equipped with shielding to minimize glare and spillover into adjacent areas.

3.1.4 Mitigation Summary

Implementation of the following MM(s) would reduce the potential for Project-related impacts to Aesthetics to less than significant:

MM AES-1: Glare Minimization

3.2 AGRICULTURE AND FORESTRY RESOURCES

AGRICULTURE AND FORESTRY RESOURCES[9] - Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**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 Natural Resources Agency, to non-agricultural use?	☐	☐	☒	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Pub. Resources Code, § 12220, subd. (g)), timberland (as defined by Pub. Resources Code, § 4526), or timberland zoned Timberland Production (as defined by Gov. Code, § 51104, subd. (g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒

[9] In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the State's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board (CARB).

AGRICULTURE AND FORESTRY RESOURCES[9] - Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**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?	☐	☐	☐	☒

3.2.1 Environmental Setting

The Project corridor is located within the city of Napa and Napa County. Agriculture is an important industry in the County and is the primary land use designated within the County (Napa County 2008). Protection of agricultural uses is critical to the economic viability of the region, and it supports the city's and county's tourism and supporting industries, as Napa County is a world-famous grape-growing and wine-making region. Although Napa County is known as a premier wine grape growing region, a small variety of other agricultural crops are also grown. In 2004, the largest amount of orchard acreage was devoted to walnuts and olives (Napa County 2005).

As shown in Figures 3.2-1a and 3.2-1b, the western portion of the Project area (primarily associated with the Pipe Staging Area) is partially located adjacent to a winery that is surrounded by farmlands of statewide importance to the southwest and farmlands of local importance to the northeast (CDC 2022b). A small portion of the Project area on the western side is located within farmlands of statewide importance. Grazing land is located along approximately one-third of the Project corridor along both sides of the River. The eastern Project corridor is located partially within grazing land and partially within an area identified as Prime Farmland. The temporary work and staging areas within Prime Farmland during Phase 1 would be approximately 5.36 acres, and during Phase 2 approximately 1.34 acres. The area of Project disturbance is not currently planted with active crops but is in proximity to other active farming areas. Specifically, the eastern Project areas are within irrigated pastureland that is used for cattle grazing. The western Project areas are adjacent to dryland pasture areas that are managed as part of the California Department of Fish and Wildlife (CDFW) Napa-Sonoma Marshes Wildlife Area.

The Project area is within an area zoned as Agricultural Resource (AR) along the western portion of the corridor within the city of Napa (City of Napa 2019). The eastern portion of the Project area is located between an area zoned as General Industrial (GI) and Public Lands (PL) and having a designated land use of Public-Institutional by Napa County (Napa County 2022). The Project corridor is not located within or adjacent to any Williamson Act contract areas (Napa County 2022a). The closest Williamson Act area is located approximately 0.3-mile northwest from the western boundary of the Project area.

3.2.2 Regulatory Setting

There are no federal laws, regulations, or policies pertaining to agricultural resources that are relevant to the Project. State laws and regulations pertaining to agricultural resources and relevant to the Project are identified in Appendix A. The State Williamson Act and Farmland Security Zone Act programs are administered locally. Napa County is a party to and enforces the contracts on lands within their unincorporated areas. Local policies or regulations applicable to the Project with respect to agriculture are identified in Appendix B.

3.2.3 Impact Analysis

The Project would not result in significant impacts to agriculture and forest resources. Less than significant impacts include temporary disturbance of Prime Farmland during Project-related ground disturbance activities.

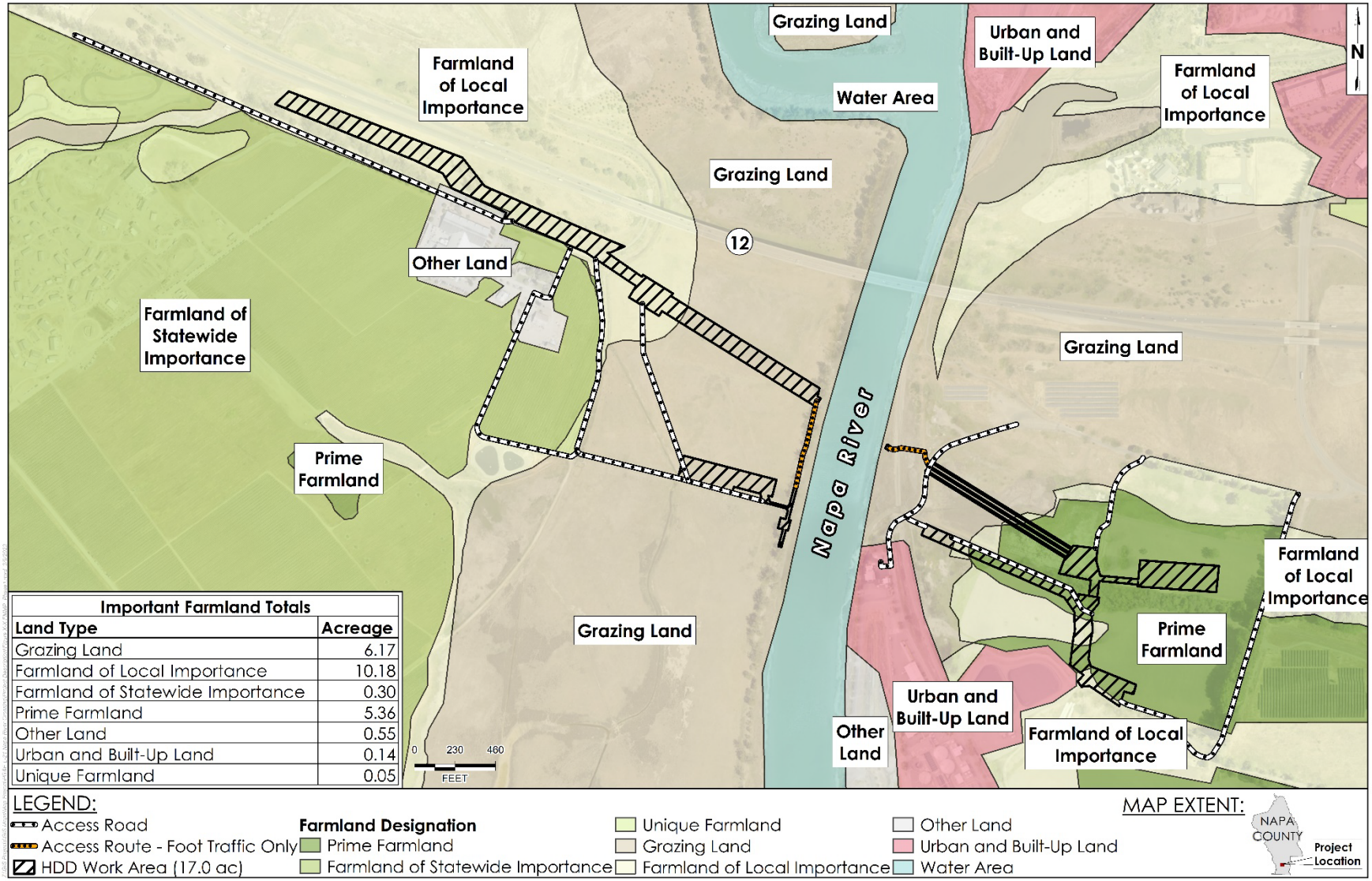
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Natural Resources Agency, to non-agricultural use?

Less Than Significant Impact

Phase 1

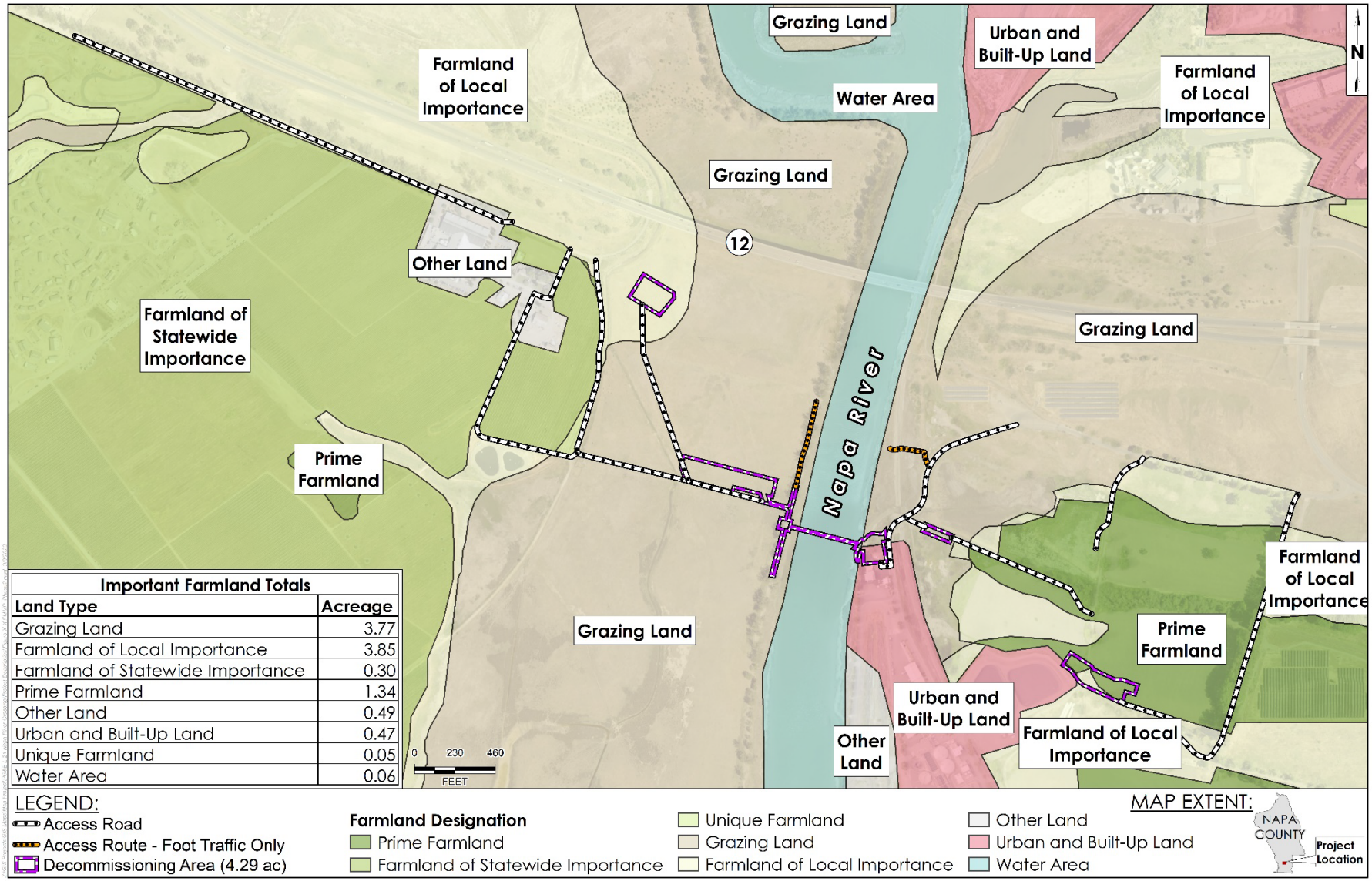
As discussed above, the Project area is located within and adjacent to agriculturally zoned and developed lands (Figure 3.2.1a). During Phase 1, approximately 5.36 acres of soils designated as Prime Farmland would be temporarily disturbed along the eastern portion of the pipeline installation corridor within Napa County to facilitate the horizontal directionally drilled (HDD) entry pit and work area, as well as the pipe ramming and staging areas in

Figure 3.2-1a. California Department of Conservation (CDC) Important Farmland Map (Phase 1)



Important Farmland Totals	
Land Type	**Acreage**
Grazing Land	6.17
Farmland of Local Importance	10.18
Farmland of Statewide Importance	0.30
Prime Farmland	5.36
Other Land	0.55
Urban and Built-Up Land	0.14
Unique Farmland	0.05

Figure 3.2-1b. California Department of Conservation (CDC) Important Farmland Map (Phase 2)



Important Farmland Totals	
Land Type	**Acreage**
Grazing Land	3.77
Farmland of Local Importance	3.85
Farmland of Statewide Importance	0.30
Prime Farmland	1.34
Other Land	0.49
Urban and Built-Up Land	0.47
Unique Farmland	0.05
Water Area	0.06

proximity to Suscol Creek. However, these areas are not currently being used in support of active agricultural production and would be returned to pre-Project, agricultural use conditions after the Project-related work on the pipeline segments. Cattle grazing would not be affected by Project activities. Other Phase 1 Project activities are limited to pipe staging and the HDD exit pit located in proximity to lands identified as agricultural soils of statewide or local importance, and other grazing lands within the western portion of the Project corridor within the city of Napa. Above ground facilities associated with the newly installed pipeline would be limited to replacement pipeline markers, which would be in areas that do not conflict with agricultural activities; therefore, impacts to Prime Farmland would be less than significant.

Although permanent conversion of farmland is not proposed, Phase 1 activities would require the temporary disturbance of Prime Farmland soils. In addition, Project-related activities may interfere with cultivation of adjacent farmlands since Project activities would occur adjacent to lands in agricultural production or in support of agricultural industries.

However, land use would be coordinated with each landowner prior to work activities. Additionally, PG&E would provide adequate noticing to adjacent property owners within 500 feet of the Project area at least 2 months prior to work activities including PG&E contact information to ensure appropriate coordination opportunities are provided. Therefore, the impacts would be less than significant for Phase 1.

Phase 2

During Phase 2, the decommissioned pipeline segments would be removed entirely or filled with cement slurry and left in-place underground (Figure 3.2.1a). Ground disturbance during Phase 2 would be limited to selected areas utilized in support of staging. All staging areas are located within areas that have been identified in support of passive agricultural (grazing) activities, except the staging area to the east of Segment 4 which is located within a Prime Farmland area that encompasses approximately 1.34 acres. As discussed in the Phase 1 analysis above, these areas are owned by NapaSan and CDFW and are not being utilized in support of active farming such as row crops or orchards and would be returned to pre-Project, agricultural use conditions following completion of Phase 2 activities. No permanent loss of agricultural soil or conversion of farmland would occur; therefore, the impacts would be less than significant. Project-related activities may temporarily restrict access and any

planned cultivation; however, as discussed above, landowner coordination and adequate noticing will be provided by PG&E to adjacent property owners. Therefore, the impacts would be less than significant for Phase 2.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact

There are no Project areas within or directly adjacent to a Williamson Act contract area. Project activities would be short-term and would not result in any permanent above-ground impacts. The Project does not represent a change in land use and would not conflict with the existing General Industrial or Public Lands zoning in Napa County or Agricultural Resource zoning in the City of Napa, and would not conflict with any agricultural practices, or result in cancellation of any Williamson Act contract; therefore, there would be no impact.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Pub. Resources Code, § 12220, subd. (g)), timberland (as defined by Pub. Resources Code, § 4526), or timberland zoned Timberland Production (as defined by Gov. Code, § 51104, subd. (g))?

d) Result in the loss of forest land or conversion of forest land to non-forest use?

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact (c through e)

Forest land or timberland does not occur in the region and would not be rezoned, adversely affected, or converted to non-forest use. In addition, there would be no conversion of the Project area agricultural land to non-agricultural use; therefore, there would be no impact.

3.2.4 Mitigation Summary

The Project would have no significant impact to Agriculture and Forestry Resources; therefore, no mitigation is required.

3.3 AIR QUALITY

AIR QUALITY - Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☒	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

3.3.1 Environmental Setting

The federal government has established ambient air quality standards to protect public health (primary standards) and welfare (secondary standards). California has established separate, more stringent standards. Federal and state standards have been established for ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), suspended particulate matter (PM), and lead. Particulate matter with a diameter of 10 microns or less (PM_{10}) includes coarse particles such as dust; particulate matter with a diameter of 2.5 microns or less ($PM_{2.5}$) includes fine particles such as vehicle exhaust. In addition, California has standards for ethylene, hydrogen sulfide, sulfates, and visibility-reducing particles.

The Project area is in Napa County, which is within the San Francisco Bay Area Air Basin, where air pollutants are managed by the Bay Area Air Quality Management District (BAAQMD). The basin tends to experience low to moderate concentrations of most pollutants when compared to federal or state standards. The Project area is designated as either in attainment or unclassified

for most criteria pollutants, except for ozone, fine particulate matter (PM2.5), and respirable particulate matter (PM10), which are designated as non-attainment for the federal and/or state standards (BAAQMD 2022).

3.3.1.1 Local Climate and Meteorology

The California Air Resources Board (CARB) has divided the State into 15 air basins to better manage air pollution. Air basin boundaries were determined by grouping together areas with similar geographical and meteorological features. Political boundaries were also considered in determining the air basin boundaries. The Project area is in the Napa County portion of the Bay Area Air Basin which encompasses Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties, and the western portion of Solano and southern portion of Sonoma counties.

The San Francisco Bay Area Air Basin can be described as having a coastal Mediterranean climate (BAAQMD 2017a). The basin consists of coastal mountain ranges with inland valleys and bays that distort normal wind flow patterns. Temperatures in Napa County rarely reach below freezing and are warm during the summertime, with cool evenings. Summertime temperatures range between an average low of 50 degrees Fahrenheit and a high of 80 degrees Fahrenheit and winter temperatures range between average lows of 36 and an average high of 64 degrees Fahrenheit (U.S. Climate Data 2023). The majority of rainfall occurs November through February and can range between 2.5 to 4.5 inches of rain per month (U.S. Climate Data, 2023).

Criteria air pollutants are those contaminants for which ambient air quality standards have been established for the protection of public health and welfare. Criteria air pollutants include ozone, CO, NO_2, SO_2, PM_{10}, and $PM_{2.5}$. A discussion of these criteria pollutants is provided below. Local Air Quality

The nearest ambient air quality monitoring station is located at Napa Valley College, approximately 2.1 miles north of the Project area. Ambient air quality data from the Napa Valley College monitoring station indicates ozone and PM_{10} concentrations rarely exceeded the California and national ambient air quality standards from 2019 through 2021 (Table 3.3-1).

Table 3.3-1. Ambient Air Quality Summary (Napa Monitoring Station)

Air Pollutant/Parameter	Standard	2019	2020	2021
Ozone (parts per million)				
Maximum 1-hour concentration monitored (ppm)	--	0.095	0.091	0.070
Number of days exceeding State standard	0.095 ppm	1	0	0
Maximum 8-hour concentration monitored (ppm)	--	0.077	0.077	0.064
Number of days exceeding 2015 Federal 8-hour standard	0.070 ppm	2	1	0
Number of days exceeding State 8-hour standard	0.070 ppm	2	1	0
PM_{10} (micrograms/cubic meter)				
Maximum sample (µg/m^3, California samplers)	--	39.0	125.0	24.0
Number of samples exceeding State 24-hour standard	50 µg/m^3	0	2	0
Number of samples exceeding Federal 24-hour standard	150 µg/m^3	0	0	0
$PM_{2.5}$ (micrograms/cubic meter)				
Maximum sample (µg/m^3, California samplers)	--	21.5	148.5	17.6
Number of samples exceeding Federal 24-hour standard	35 µg/m^3	0	14	0

Notes:
"--" means there is no defined standard for the pollutant or parameter
pm (parts per million)
µg/m^3 (micrograms per cubic meter air)

3.3.1.2 Sensitive Receptors and Surrounding Area Land Use

Some land uses are considered more sensitive to air pollution than others due to population groups or activities involved. Sensitive population groups include children, elderly, acutely ill, chronically ill, and those with cardio-respiratory

diseases. Residential areas are also considered to be sensitive to air pollution because residents (including children and elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present.

Recreational land users may be considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation.

Industrial and commercial areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent, as most of the workers tend to stay indoors most of the time. In addition, the working population is generally the healthiest segment of the public.

The two nearest residences are located east of Migration Winery and approximately 200 feet south of the Pipe Staging Area, south of Stanly Land at the intersection of Ranch Road and Merryvale Lane (Figure 3.1-1).

The San Francisco Bay Trail and Napa River Trail may be considered a recreational land use areas and includes Stanly Lane which is located parallel to the Pipe Staging Area (Figure 3.1-1).

3.3.1.3 Criteria Pollutants

Criteria air pollutants are those contaminants for which ambient air quality standards have been established for the protection of public health and welfare. Criteria air pollutants include ozone, CO, NO_2, SO_2, PM_{10}, and $PM_{2.5}$. A discussion of these criteria pollutants is provided below.

Ozone

This pollutant is formed in the atmosphere through complex photochemical reactions involving oxides of nitrogen (NO_X), reactive organic compounds (ROC), and sunlight that occur over several hours. Since ozone is not emitted directly into the atmosphere but is formed because of photochemical reactions, it is classified as a secondary or regional pollutant. These ozone-forming reactions take time, and therefore peak ozone levels are often found downwind of major source areas. Ozone is considered a respiratory irritant and prolonged exposure can reduce lung function, aggravate asthma, and increase susceptibility to respiratory infections. Children and those with existing respiratory diseases are at greatest risk from ozone exposure.

Carbon Monoxide

CO is primarily formed through the incomplete combustion of organic fuels. Higher CO values are generally measured during winter when dispersion is limited by morning surface inversions. Seasonal and diurnal variations in meteorological conditions lead to lower values in summer and in the afternoon. CO is an odorless, colorless gas. CO affects red blood cells in the body by binding to hemoglobin and reducing the amount of oxygen that can be carried to the body's organs and tissues, which can cause health effects to those with cardiovascular disease and can affect mental alertness and vision.

Nitric Oxide and Nitrogen Dioxide

Nitric oxide (NO) is a colorless gas formed during combustion processes which rapidly oxidizes to form NO_2, a brownish gas. The highest nitrogen dioxide values are generally measured in urbanized areas with heavy traffic. Exposure to NO_2 may increase the potential for respiratory infections in children and cause difficulty in breathing even among healthy people and especially among asthmatics.

Sulfur Dioxide

SO_2 is a colorless, reactive gas that is produced from burning sulfur-containing fuels, such as coal and oil, as well as by other industrial processes. Generally, the highest concentrations of SO_2 are found near large industrial sources. SO_2 is a respiratory irritant that can cause narrowing of the airways, leading to wheezing and shortness of breath. Long-term exposure to SO_2 can cause respiratory illness and aggravate existing cardiovascular disease.

Particulate Matter

Ambient air quality standards have been set for PM_{10} and $PM_{2.5}$. Both consist of different types of particles suspended in the air, such as metal, soot, smoke, dust, and fine mineral particles. The particles' toxicity and chemical activity can vary, depending on the source. The primary source of PM_{10} emissions appears to be from the soil via road use, construction, agriculture, and natural windblown dust. Other sources include sea salt, combustion processes (such as those in gasoline or diesel vehicles), and wood burning. Primary sources of $PM_{2.5}$ emissions come from construction sites, wood stoves, fireplaces, and diesel truck exhaust. Particulate matter is a health concern because when inhaled it can cause permanent lung damage. While both sizes of particulates can be dangerous

when inhaled, $PM_{2.5}$ tends to be more damaging because it remains in the lungs.

3.3.1.4 Toxic Air Contaminants

Over 800 substances have been identified by the U.S. Environmental Protection Agency (USEPA) and CARB that are emitted into the air and may adversely affect human health. Due to the cancer risk associated with exposure to diesel particulate matter (DPM), this substance has been targeted for risk reduction by the CARB.

The combustion of diesel fuel in truck engines (as well as other internal combustion engines) produces exhaust containing several compounds that have been identified as hazardous air pollutants by USEPA and toxic air contaminants by the CARB. PM from diesel exhaust has been identified as a toxic air contaminant (TAC). The Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES IV) indicates DPM is a major contributor to cancer risk, accounting on average for 68 percent of the total risk in the southern California group sampled (SCAQMD 2015). Similar DPM-related cancer risk is likely present in other highly developed areas of California. DPM is currently controlled with selective catalytic reduction control systems (with diesel exhaust fluid) on all new diesel trucks and heavy equipment. In addition, fleets of older trucks are required to phase in installation of exhaust particulate filters.

Sources of TACs in the Project region include mobile sources (motor vehicles, aircraft, trains, equipment) and stationary sources such as dry cleaners (perchloroethylene emissions) and gasoline dispensing stations (vapor emissions of benzene and other components of gasoline).

3.3.2 Regulatory Setting

Federal and state laws and regulations pertaining to air quality relevant to the Project are identified in Appendix A. Air pollution control is administered on three governmental levels. The USEPA has jurisdiction under the Clean Air Act. The CARB has jurisdiction under the California Health and Safety Code and the California Clean Air Act (CCAA), which is deferred (in part) to local air districts. The Project site is in Napa County, which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD).

3.3.2.1 Air Quality Standards

The USEPA established National Ambient Air Quality Standards (NAAQS) to protect public health (primary standards) and welfare (secondary standards). Air basins are classified by the USEPA as in "attainment" or "non-attainment" based on meeting the NAAQS. CARB also established more stringent California Ambient Air Quality Standards (CAAQS), which require air basins to be designated as in "attainment" or "non-attainment" based on meeting the CAAQS. NAAQS and CAAQS have been established for ozone, CO, NO_2, SO_2, suspended particulate matter (e.g., dust), and lead. In addition, California has standards for hydrogen sulfide (H_2S), sulfates, and visibility-reducing particles. Table 3.3-2 lists applicable Federal and state ambient air quality standards.

Table 3.3-2. Ambient Air Quality Standards (State and Federal)

Pollutant	Averaging Time	California Standard	Federal Standard
Ozone	1-Hour	0.09 ppm	--
Ozone	8-Hour	0.070 ppm	0.070 ppm
Carbon Monoxide (CO)	1-Hour	20 ppm	35 ppm
Carbon Monoxide (CO)	8-Hour	9.0 ppm	9 ppm
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm	0.053 ppm
Nitrogen Dioxide (NO_2)	1-Hour	0.18 ppm	100 ppb
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	--	0.030 ppm
Sulfur Dioxide (SO_2)	24-Hour	0.04 ppm	0.14 ppm
Sulfur Dioxide (SO_2)	3-Hour	--	0.5 ppm (secondary)
Sulfur Dioxide (SO_2)	1-Hour	0.25 ppm	75 ppb
Respirable Particulate Matter (PM_{10})	Annual Geometric Mean	20 µg/m^3	--
Respirable Particulate Matter (PM_{10})	24-Hour	50 µg/m^3	150 µg/m^3

Pollutant	Averaging Time	California Standard	Federal Standard
Fine Particulate Matter ($PM_{2.5}$)	Annual Geometric Mean	12 µg/m^3	12.0 µg/m^3
Fine Particulate Matter ($PM_{2.5}$)	24-Hour	--	35 µg/m^3
Hydrogen Sulfide (H_2S)	1-Hour	0.03 ppm	--
Vinyl Chloride	24 Hour	0.01 ppm	--
Sulfates	24 Hour	25 µg/m^3	--
Lead	30 Day Average	1.5 µg/m^3	--
Lead	Calendar Quarter	--	1.5 µg/m^3
Lead	Rolling 3-Month Average	--	0.15 µg/m^3
Visibility Reducing Particles	8-Hour	Extinction coefficient of 0.23 per kilometer - visibility of 10 miles or more due to particles when relative humidity is less than 70 percent.	--

Notes:
"--" means there is no defined standard for the pollutant or parameter
ppm = parts per million
µg/m^3 = micrograms per cubic meter air

3.3.2.2 Air Quality Regulation and Planning

The CCAA requires air districts which have been designated as a nonattainment area for the CAAQS for ozone, CO, SO_2, or NO_2 to prepare and submit a plan for attaining and maintaining the standards. The CCAA also requires that districts review their progress made toward attaining the CAAQS every three years.

The Bay Area Air Basin is designated as nonattainment for the following pollutant standards, with respect to the NAAQS and CAAQS:

- State 1-hour ozone standard

- State 8-hour ozone standard
- National 8-hour ozone standard
- State annual PM_{10} standard
- State 24-hour PM_{10} standard
- State annual $PM_{2.5}$ standard
- National 24-hour $PM_{2.5}$ standard

The BAAQMD is responsible for the following:

- Manages stationary sources of air pollutants within the Bay Area Air Basin to protect air quality and facilitate attainment of the NAAQS and CAAQS
- Develops regulations to improve air quality and protect residents' health and welfare and the environment. These regulations include permit requirements, emissions limits for specific source categories, and air toxics control measures for several source categories including stationary compression ignition engines
- Monitors air quality
- Prepares clean air plans
- Responds to citizen complaints concerning air quality and odors

The BAAQMD regulates nuisance conditions under Regulation 1 (taken from Section 41700 of the California Health and Safety Code), which states that "no person shall discharge from any non-vehicular source such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such persons or the public or which cause or have a natural tendency to cause injury or damage to business or property."

Napa County adopted a comprehensive update to their General Plan on June 23, 2009. The General Plan details the County's guiding principles for a variety of planning topics and is the roadmap for future development in the County. The Conservation Element includes policies to reduce air quality impacts of discretionary projects, reduce particulate emissions overall, and implement dust control measures required by the BAAQMD (included in Appendix B).

The BAAQMD adopted the Final 2017 Clean Air Plan on April 19, 2017, to address attainment of the NAAQS and CAAQS. The 2017 Clean Air Plan updates the

most recent Bay Area ozone plan, the 2010 Clean Air Plan, pursuant to air quality planning requirements defined in the California Health & Safety Code. To fulfill state ozone planning requirements, the 2017 control strategy includes all feasible measures to reduce emissions of ozone precursors (ROC and NO_x) and reduce transport of ozone and its precursors to neighboring air basins. In addition, the Clean Air Plan builds upon and enhances the BAAQMD's efforts to reduce emissions of fine particulate matter and toxic air contaminants.

3.3.2.3 Significance Thresholds

As part of their CEQA Air Quality Guidelines, the BAAQMD adopted the following significance thresholds for construction-related emissions (BAAQMD 2022):

- NO_x: 54 pounds per day
- ROC: 54 pounds per day
- PM_{10}: 82 pounds per day (exhaust)
- $PM_{2.5}$: 54 pounds per day (exhaust)

3.3.3 Impact Analysis

Pipeline replacement and decommissioning activities would generate air pollutant emissions that may result in local and regional air quality impacts.

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

Less than Significant with Mitigation

The Project would replace and decommission a natural gas pipeline. This Project would not extend service into new areas or provide increased capacity into underserved areas. However, BAAQMD's primary goals are to protect public health by attaining air quality standards. The Clean Air Plan includes a wide range of proposed control measures, which consist of actions to reduce ozone, fine particulate matter ($PM_{2.5}$), and respirable particulate matter (PM_{10}) emissions. BAAQMD guidance indicates projects that support the primary goals, incorporate all applicable control measures of the 2017 Clean Air Plan and would not disrupt or hinder implementation of any control measures of the 2017 Clean Air Plan are considered consistent with the Plan (BAAQMD 2022).

MM AQ-1 (see b), below) would reduce fugitive dust (PM_{10}) by requiring that Project roads and equipment are maintained to reduce continued disturbance

to dry soil and meet qualitative fugitive dust standards. Based on the aforementioned BAAQMD guidance, the Project can be considered consistent with the Clean Air Plan, and therefore the Project would not conflict with or obstruct implementation of the Plan. Implementation of **MM AQ-1** would therefore reduce this impact to a less than significant level.

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 with Mitigation

Exhaust Emissions. The primary sources of air pollutant emissions associated with the Project are internal combustion engines used during pipeline replacement and decommissioning activities. Specifically, conventional construction equipment such as dozers, excavators, generators, drill rigs, loaders, and trucks would be utilized during construction activities. Additional sources of air pollutant emissions include exhaust emissions from marine vessels, and on-road motor vehicles used to transport materials and personnel.

Criteria pollutant emissions for heavy construction equipment and marine vessels proposed to be utilized during each major task phase for both Phases 1 and 2 were estimated using modeling on CARB's Emissions Factor (EMFAC) 2021 and OFFROAD 2021 web-based models (Appendix E). In addition, exhaust emissions from engines used on marine vessels were estimated using emissions factors from the San Pedro Bay Emissions Inventory Methodology Report (Starcrest 2019).

Tables 3.3-3 and 3.3-4 list the total and daily estimated Project air pollutant emissions for each work task for both Phases 1 and 2. The individual Project components with the greatest peak day emissions would be HDD Operations during Phase 1 and Segment 2 decommissioning during Phase 2.

The BAAQMD NO_x daily significance threshold would be exceeded during the 30 days of scheduled pipe string welding and 60 days of HDD operations; therefore, Project-related NO_x emissions would contribute to a net increase in criteria pollutants that are under nonattainment according to the BAAQMD. To minimize adverse effects to air quality from NOx during Project activities, PG&E will implement **MM AQ-2** to reduce equipment emissions and ensure impacts would be less than significant.

Table 3.3-3. Total Estimated Air Pollutant Emissions (Tons) in the Absence of Proposed Mitigation Measures

Work Task	NO_x	ROC	PM_{10} (exhaust)	$PM_{2.5}$ (exhaust)
Phase 1 – Exhaust Emissions				
Site Mobilization and Excavation	0.067	0.007	0.002	0.002
Pipe String Welding	0.977	0.102	0.035	0.032
HDD Operations	1.512	0.187	0.054	0.050
Pipe String Testing, Tie-in and Pipe Ramming	0.187	0.021	0.006	0.006
Demobilization and Restoration	0.084	0.008	0.003	0.003
Total Phase 1	**2.83**	**0.33**	**0.10**	**0.09**
Phase 2 – Exhaust Emissions				
Mobilization, Pigging and Flushing	0.045	0.005	0.001	0.001
Excavation	0.159	0.018	0.005	0.005
Terrestrial Decommissioning	0.127	0.014	0.004	0.004
Pre-Project Bathymetric Survey and Riverine Decommissioning	0.597	0.086	0.025	0.024
Restoration, Demobilization and Post-Project Bathymetric Survey	0.115	0.011	0.004	0.004
Total Phase 2	**1.04**	**0.14**	**0.04**	**0.04**
Total Project	**3.87**	**0.47**	**0.14**	**0.13**

Note: N/A = Not Applicable

Table 3.3-4. Peak Day Estimated Air Pollutant Emissions (Pounds)

Work Task	NO_x	ROC	PM_{10} (exhaust)	$PM_{2.5}$ (exhaust)
Phase 1 – Exhaust Emissions				
Site Mobilization and Excavation	29.08	2.87	0.99	0.92
Pipe String Welding	112.84	11.04	4.25	3.91
HDD Operations	54.28	6.66	1.90	1.75
Pipe String Testing, Tie-in and Pipe Ramming	26.77	3.08	0.93	0.86
Demobilization and Restoration	17.57	1.76	0.64	0.59

Work Task	NO_x	ROC	PM_{10} (exhaust)	$PM_{2.5}$ (exhaust)
Highest Peak Day Phase 1	**112.84**	**11.04**	**4.25**	**3.91**
Phase 2 – Exhaust Emissions				
Mobilization, Pigging and Flushing	11.53	1.12	0.31	0.29
Excavation	15.00	1.63	0.50	0.46
Terrestrial Decommissioning	12.47	1.45	0.39	0.37
Pre-Project Bathymetric Survey and Riverine Decommissioning	52.34	7.04	1.98	1.98
Restoration, Demobilization and Post-Project Bathymetric Survey	29.06	2.96	0.94	0.90
Highest Peak Day Phase 2	**52.34**	**7.04**	**1.98**	**1.98**
BAAQMD Significance Threshold	**54**	**54**	**82**	**54**

Note: N/A = Not Applicable; Highest peak day reflects daily emissions for the highest emitting work task for that phase.

Fugitive Dust Emissions. Excavation activities and equipment movement across unpaved construction sites generate dust. Dust can cause eyes to water or irritate the lungs, nose, and throat. Excavation, grading, and other construction activities can generate windblown dust that adds PM_{10} and $PM_{2.5}$ to the local atmosphere.

BAAQMD has taken a qualitative approach to evaluating impacts of fugitive dust emissions during construction. Any project that implements the BAAQMD Basic Construction Mitigation Measures Recommended for All Projects would not result in a significant impact with respect to fugitive dust (BAAQMD 2022). Therefore, **MM AQ-1** would be implemented to address construction-related dust, consistent with BAAQMD recommendations. Implementing **MM AQ-1** would reduce this impact to a less than significant level.

> **MM AQ-1: Fugitive Dust Control Measures.** PG&E shall implement the following Bay Area Air Quality Management District (BAAQMD) best management practices for construction-related fugitive dust:
>
> - 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 offsite 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 excavation, grading, and demolition activities shall be suspended when average wind speeds exceed 20 miles per hour.
- All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
- Publicly visible signs shall be posted with the telephone number and person to contact at PG&E regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.
- 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 a maximum of 50 percent air porosity.
- Plant vegetative ground cover (e.g., fast-germinated 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.

PG&E shall also implement the following:

- Hydroseed or apply non-toxic soil stabilizers to construction areas, including previously graded areas, that are inactive for at least 14 calendar days.
- Stockpiled soil shall be covered and secured at the end of each workday.
- Unpaved roads providing access to site located 100 feet or further from a paved road shall be treated with a 6- to 12-inch compacted layer of wood chips, mulch, gravel, or other material, as approved by the property owner.

MM AQ-2: Bay Area Air Quality Management District Equipment Emissions Reduction Measures. The following construction mitigation measures recommended by the Bay Area Air Quality Management District shall be implemented by the Project contractor:

- 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).
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications for the duration of the Project. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Minimize idling time of diesel-powered construction equipment to two minutes.
- Off-road equipment (more than 50 horsepower) to be used (i.e., owned, leased, and subcontractor vehicles) shall use the latest model engines, engine retrofit technology, after-treatment products, and add-on devices such as particulate filters to the extent such equipment is available.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact

The nearest residential receptor is located approximately 200 feet south of the Pipe Staging Area. Most air pollutants would be emitted at the East Work Area or at the in-river work area which are located approximately 3,400 feet and 2,100 feet from the nearest residence, respectively. Project-related air pollutant emissions near these residences would be primarily associated with pipe string welding and be limited to about 30 workdays. Project-related air pollutant emissions near these residences would be temporary and reduced by standard fugitive dust reduction measures. Impacts to sensitive receptors are considered less than significant for the following reasons:

- None of the sensitive receptors are located closer than 200 feet
- Emissions sources (mostly pipelayers and cranes) near the closest residence (adjacent to the Pipe Staging Area) would be dispersed over the 2,800 foot pipeline string.
- Local ambient air quality is generally very good
- Air pollutant emissions near these residential receptors would be short-term (30 days)

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less than Significant Impact

Phase 1 and Phase 2-related odors would be limited to diesel exhaust and possibly reduced sulfur compounds in exposed saturated soil and sediments. The local odor environment is dominated by odors emanating from the sludge beds at the nearby NapaSan wastewater treatment plant. The highest odor levels would be associated with exposed river sediments during removal of the river crossing pipeline segment which would be limited to a small area on the riverbank, located at least 1,900 feet away from the nearest residence. The very small area of affected riverbank is not anticipated to generate odors detectable to any adjacent occupied land uses. Due to the temporary nature of Project activities, minimal odor generated, and distance to any affected persons, odor impacts are considered less than significant. Project-related odors would not create a nuisance or violate BAAQMD Regulation 1.

As part of the replacement pipeline commissioning, natural gas odor conditioning and monitoring would be implemented which consists of monitoring the levels of odorant in the pipeline at both tie-in locations and injecting additional odorant as required to maintain the appropriate level of odorization. This process would be monitored to ensure the odorant does not escape into the atmosphere. Therefore, odorant is not anticipated to be detectable at any adjacent land uses. In any case, the nearest residence is located approximately 3,000 feet from the nearest tie-in location and odor conditioning location. The odor conditioning process would not create a nuisance or violate BAAQMD Regulation 1. Therefore, the impacts would be less than significant.

3.3.4 Mitigation Summary

Implementation of the following MMs would reduce the potential for Project-related impacts to Air Quality to less than significant:

MM AQ-1: Fugitive Dust Control Measures
MM AQ-2: Bay Area Air Quality Management District Equipment Emissions Reduction Measures

3.4 BIOLOGICAL RESOURCES

BIOLOGICAL RESOURCES – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**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, or that is a species of interest to the State Lands Commission or the California Coastal Commission; or cause a marine wildlife population to drop below self-sustaining levels?	☐	☒	☐	☐
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, U.S. Fish and Wildlife Service, State Lands Commission, or California Coastal Commission?	☐	☒	☐	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or	☐	☒	☐	☐

BIOLOGICAL RESOURCES – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (including essential fish habitat)?	☐	☒	☐	☐
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?	☐	☒	☐	☐

The following discussion contains a summary of information from the Biological Technical Report prepared for the Project by Padre Associates, Inc., which is included as Appendix F.

3.4.1 Environmental Setting

This section describes the ecological setting and biological resources (terrestrial and aquatic) in the Project area. The Project area spans the Napa River and is bordered on the west by vineyards, to the south by the CDFW Napa-Sonoma Marshes Wildlife Area, to the east by NapaSan facilities and a solar plant, and the State Highway 12 bridge over the River to the north. Biological field surveys were conducted on the 108 acres of the biological study area (BSA; Figure 3.4-1) including the reach of the Napa River and Suscol Creek through the Project area. The BSA includes all temporary impact areas, staging areas, access routes, and surrounding areas. The Project area is the portion of the BSA that includes the Project footprint where Project activities would occur.

Prior to biological field surveys, the California Natural Diversity Database (CNDDB) Biogeographic Information and Observation System (BIOS) query was

reviewed to identify occurrences of special-status plant and animal species in the Project vicinity (CDFW 2022).

Field surveys were completed during early Project development in 2019 and 2020 of the proposed HDD work areas. These early surveys included an aquatic resource delineation, biological constraints analysis, and a California black rail and California Ridgway's rail habitat assessment (Applied Technology & Sciences 2020, GANDA 2020, Swaim Biological 2019). In 2022, the BSA was expanded to include the impact footprint for the pipeline decommissioning. Subsequent field surveys were conducted on May 16, 17, 24, and 26, 2022, and August 18, 2022, to assess the biological and botanical resources occurring throughout the BSA, determine the likelihood of occurrence for special-status species or sensitive and regulated habitats on the site, and to provide a supplemental aquatic resource delineation within the expanded BSA for waters and wetlands under regulatory authority of the USACE under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899 (Padre 2022a, Padre 2022b).

Species detection methods, vegetative cover types, significant habitat features, such as wetlands, potential nest trees, and potential dens or burrows, and lists of plants and wildlife associated with the various cover types were compiled and are included in Appendix F. Plants not identified in the field were collected and returned to the lab for identification using standard taxonomic references, when possible (Baldwin et. al. 2012).

3.4.1.1 Habitat Descriptions and Plant Communities

Twenty vegetation communities and cover types were identified within the BSA during field surveys. Vegetation communities were characterized and described using *A Manual of California Vegetation* (Sawyer et al. 2009) but were modified as needed to accurately describe the existing habitat observed onsite. Below is a brief summary of the 15 plant communities that are located within the Project area. Additional detail regarding vegetation communities, including the five communities that do not occur in the Project area, and plant species lists are provided in Appendix E. Figures 3.4-1a and 3.4-1b illustrate the plant communities that occur within the Project area.

Figure 3.4-1a. Plant Communities in the West Project Area

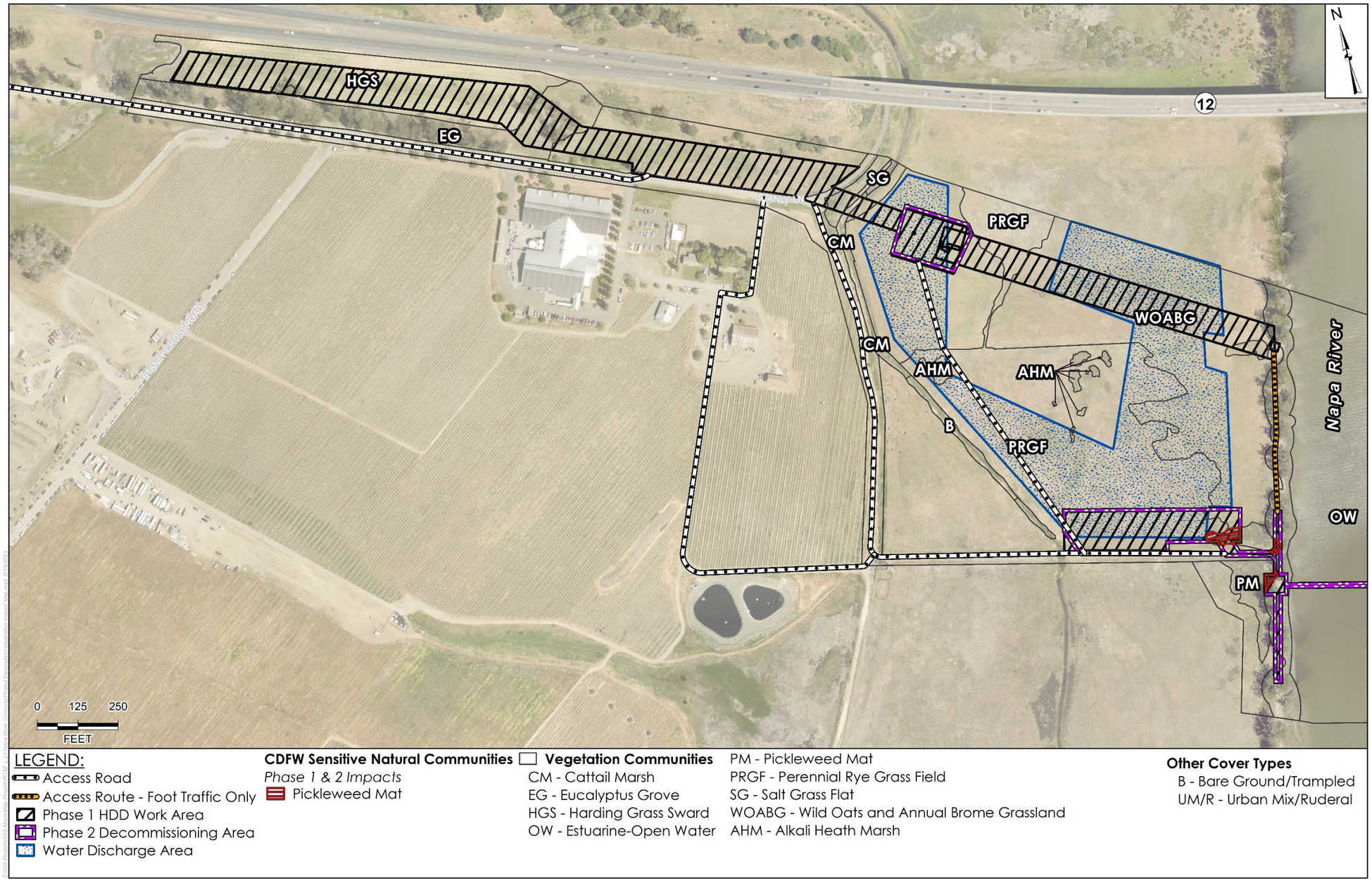
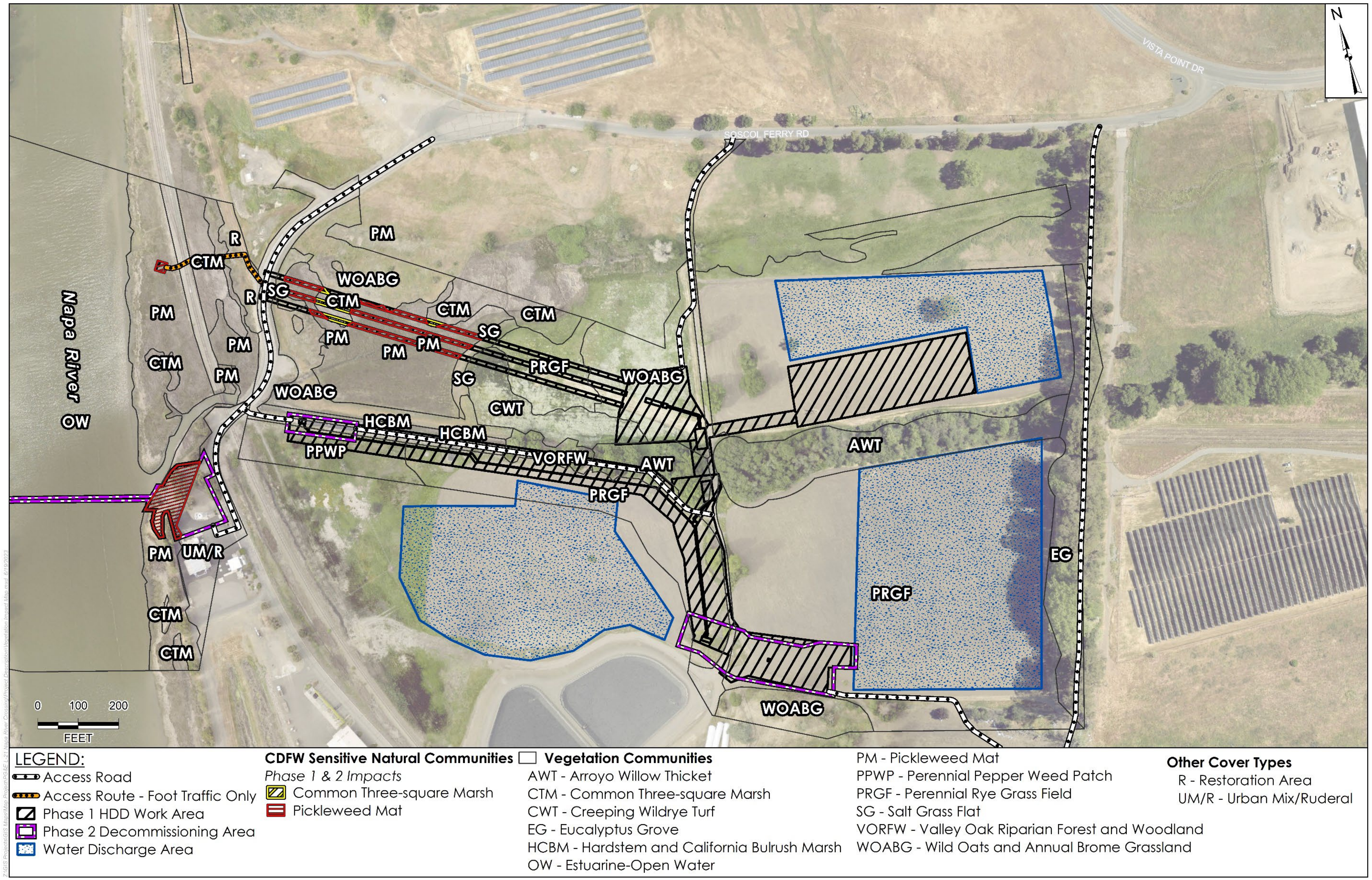


Figure 3.4-1b. Plant Communities in the East Project Area



Alkali Heath Marsh

Alkali heath marshes are found in a variety of habitats including coastal salt and brackish marshes, alkali meadows, and alkali playas, and is characterized by a dominance of alkali heath (*Frankenia salina*). Within the Project, alkali heath marshes are in low-lying depressions on the surface above the Segment 1 pipeline, which will be left in place.

Arroyo Willow Thicket

Arroyo willow thickets are typical along temporarily flooded stream banks and can be found throughout most of California. This wetland is characterized by stands of arroyo willow (*Salix lasiolepis*). Arroyo willow thickets are located along the banks of Suscol Creek in the Project area where Phase 1 pipe ramming activities would occur.

Cattail Marsh

Cattail marshes are seasonally or semi-permanently flooded freshwater or brackish plant communities characterized by tall, often dense, stands of cattails (*Typha* sp.) and sometimes in association with hardstem bulrush (*Schoenoplectus acutus*). A cattail marsh is present within the excavated ditch at the temporary bridge crossing location.

Common Three-Square Marsh

Common three-square marshes are found along streams, ponds, and lakes as well as in sloughs and fresh and brackish marshes and are characterized by a dominance of three-square (*Schoenoplectus americanus*). Within the Project area, common three-square marshes are present east of the River in low-lying areas where Phase 1 tracer wires would be placed.

Creeping Wildrye Turfs

Creeping wildrye turfs are found in playas, valley bottoms, poorly drained floodplains, and marsh margins and are characterized by a dominance of wildrye species (*Elymus* sp.). Within the Project area creeping wildrye turf is present north of Suscol Creek among the other grassland communities where Phase 1 tracer wires would be placed.

Estuarine-Open Water

This community is not described in *A Manual of California Vegetation* because it is an open water habitat with limited vegetation. The Napa River traverses the Project area and is a perennial and navigable waterway. It is tidally influenced and has variable salinity levels. There is no emergent vegetation or submerged aquatic vegetation along the banks of the river within the Project area.

Eucalyptus Groves

Eucalyptus groves are planted wind breaks and groves and have become naturalized in habitats adjacent to streams, lakes, and levees. In the Project area, Eucalyptus groves are present along Stanly Lane within the pipe staging area, along the west bank of the Napa River at the east limits of the west work area, and along the easternmost access road south of Suscol Ferry Road.

Harding Grass Swards

Harding grass swards, characterized by a dominance of Harding grass (*Phalaris aquatica*) are found in variable topographic settings, often in areas that are seasonally wet and alkaline and along levees in the San Francisco Bay Area. Within the Project area, Harding grass swards were present within the Pipe Staging Area paralleling the east bound lane of Highway 12 and Stanly Lane.

Hardstem and California Bulrush Marshes

Hardstem and California bulrush marshes can be found in slightly salty (brackish) to freshwater marshes, shorelines, sandbars, streams, ditches, ponds, lakes, and estuaries. Within the Project area, hardstem and California bulrush marsh communities are present along the lower banks and bed of the lower reach of Suscol Creek on the north side of a Phase 1 access road.

Perennial Pepperweed Patches

Perennial pepperweed patches are found in intermittently flooded fresh and saltwater marshes as well as in riparian corridors. In the Project area, perennial pepperweed (*Lepidium latifolium*) is abundant in the low-lying marsh areas, within the trenching area for Phase 1 located south of the access road parallel to Suscol Creek.

Perennial Rye Grass Fields

Perennial rye grass fields are generally found in lowlands, disked fields, and vernal pools, often in areas where periodic flooding occurs. Perennial rye grass fields are the most prevalent and the most varied plant community present in the Project area that supports a dominance of perennial rye grass (*Festuca perennis*). The Phase 1 staging area north of Suscol Creek and most of the Phase 1 tie-in areas are located within perennial rye grass fields. The wastewater discharge areas are also located within perennial rye grass fields. In some areas, like the fields north and south of Suscol Creek, the grasslands are irrigated and have almost complete coverage of perennial rye grass that is several feet tall.

Pickleweed Mat

Pickleweed mats are found in coastal salt marshes and alkali flats along many parts of coastal California and in the San Francisco Bay Area. East of the Napa River, dense pickleweed mats dominated the low terraces and occurs where tracer wires would be placed during Phase 1 and at the pipeline marker location on the east bank of the Napa River. West of the River, pickleweed patches are present in the Project area in relatively small, isolated patches, and occurs within a portion of Phase 1 and 2 workspace west of the Napa River and within the Phase 2 decommissioning area on both banks of the River.

Valley Oak Riparian Forest and Woodland

Valley oak riparian forests and woodlands occur in valley bottoms, flood plains, creeks, and stream terraces. In the Project area, a small valley oak riparian forest and woodland is present along a portion of Suscol Creek and is adjacent to (and overstory above) an existing access road to be used during Phases 1 and 2.

Wild Oats and Annual Brome Grasslands

Wild oats and annual brome grasslands are dominated by non-native grasses from Europe and Asia. This community is very common in valley and foothill grasslands as well as in the open spaces among oak woodlands. Within the Project area, wild oats and annual brome grasslands are present on both the east and west sides of the River. The Phase 1 East and West Work Areas and HDD entry and exit pits would be in wild oat and annual brome grasslands. Wastewater discharge may also be conducted within wild oats and annual brome grasslands.

Urban and Ruderal Mix

This community is not described in *A Manual of California Vegetation* because it is not a natural community and is associated with human disturbance. Within the Project area, disturbed or developed areas are primarily paved or gravel roadways in the West and East Work Areas, areas with human development, structures and landscaping, or areas with no vegetation due to human disturbance.

3.4.1.2 Waters and Wetlands

A Preliminary Aquatic Resource Delineation was completed in May 2020 of the Phase 1 Project areas, and an additional delineation was completed in August 2022 for the Phase 2 Project areas. The Preliminary Aquatic Resource Delineation identified and delineated the geographic extent of Federal jurisdictional waters of the U.S. and wetlands and was verified by the San Francisco District of the U.S. Army Corps of Engineers (USACE) (Applied Technology & Sciences 2020, Padre 2022).

The Napa River is a Navigable Waterway under Section 10 of the Rivers and Harbors Act of 1899 and a Water of the U.S. under Section 404 of the Clean Water Act (CWA) and is subject to USACE jurisdiction. Adjacent lands meeting the three-parameter definition of a federal wetland are also USACE jurisdictional under Section 404 of the CWA (Cowardin et al 1979). The River and adjacent wetlands also meet the definition of waters of the State, defined within the Porter-Cologne Water Quality Control Act, which includes any surface water or groundwater, including saline waters, within the boundaries of the State, and are regulated by the Regional Water Quality Control Board (RWQCB). The bed, bank, and riparian cover on the River, Suscol Creek, and the unnamed channel west of the River are also regulated under Sections 1600-1617 of the California Fish and Game Code administered by the CDFW.

A total of 25.51 acres of federal jurisdictional waters and wetlands are present in the BSA, of which 13.54 acres are federal wetlands and 11.97 acres in the River and Suscol Creek are classified as an estuarine subtidal water and tidal riverine water, respectively. Activities within these delineated areas are regulated by the federal government and the State of California.

3.4.1.3 Wildlife

Wildlife observed within the BSA was characteristic of the region and of the estuarine, marshland, grassland, and riparian habitats that occur onsite. A

comprehensive list of wildlife species observed during the surveys is included in Appendix F.

The plant communities in the Project area, which includes the River corridor, provide habitat for a wide variety of aquatic and terrestrial species and species that are closely tied to the aquatic environment. A range of fish species are historically known to utilize the River through the Project area including southern distinct population segment (DPS) green sturgeon (*Acipenser medirostris*), Central California Coast DPS steelhead (*Oncorhynchus mykiss irideus*), and delta smelt (*Hypomesus transpacificus*). Terrestrial species that are closely tied to the water and prey upon fish species include belted kingfisher (*Megaceryle alcyon*), osprey (*Pandion haliaetus*), and double-crested cormorant (*Phalacrocorax auritus*). The low terraces along the eastern bank of the River support brackish marsh habitats and pickleweed mats that can provide food and shelter for wildlife species like salt marsh harvest mouse (*Reithrodontomys raviventris*). Within the marsh on the east bank of the River, two California black rails (*Laterallus jamaicensis coturniculus*) were heard calling back and forth with one another during field surveys. Predators that utilize the River margins and marsh include great egret (*Area alba*) and great blue heron (*Ardea herodias*). Along upstream portions of Suscol Creek there is dense riparian cover with mixed arroyo willow and valley oak trees. Riparian corridors like this can provide both sufficient cover and food for wildlife to migrate through or stay long term.

The open grasslands in the West and East Work Areas provide food and shelter for songbirds and small mammals, such as savannah sparrow (*Passerculus sandwichensis*), ring-necked pheasant (*Phasianus colchicus*), California vole (*Microtus californicus*), and black-tailed hare (*Lepus californicus*). These species serve as prey that attract raptors such as red-tailed hawk (*Buteo jamaicensis*), northern harrier (*Circus hudsonius*), and Swainson's hawk (*Buteo swainsoni*) as well as mammalian predators like coyote (*Canis latrans*).

Birds can potentially nest in the trees, shrubs and grasslands in the Project area. Nesting habitat is present along the River and Suscol Creek, in riparian tree cover and the large eucalyptus (*Eucalyptus* sp.) trees that occur on both sides of the Project area in the eastern and western side of the River. These could provide nesting habitat for large broad-winged raptors like red-tailed hawk and Swainson's hawk. There are also several marshes that support plants like cattail, tule, and California bulrush which can provide nesting habitat for marsh wrens (*Cistothorus palustris*), song sparrows (*Melospozia melodia*), and red-winged blackbird (*Agelaius phoeniceus*).

3.4.1.4 Special-Status Species

Special-status species include those species that are State or federally listed as endangered or threatened, species proposed for such listing, candidate species, and state or local species of concern. For the purposes of this analysis, special-status species are those species that could be found in the Project area that meet any of the following criteria:

- Listed as endangered or threatened species under the federal Endangered Species Act (FESA) (50 Code of Federal Regulations [CFR] 17.11 [listed animals], 50 CFR 17.12 [listed plants], and various notices in the Federal Register [FR])
- Species that are candidates for possible future listing as threatened or endangered under FESA (FR, November 16, 2020)
- Species that are listed or proposed for listing by the state of California as threatened or endangered under the California Endangered Species Act (CESA) (CESA) (Cal. Code Regs, tit.14, § 670.5)
- Animals listed as fully protected species or California Species of Special Concern on CDFW's Special Animals List (CDFW 2023a)
- Plants listed as rare under the California Native Plant Protection Act (Fish & G. Code 1900 et seq.)
- Plants with a California Rare Plant Rank (CRPR) of 1A, 1B, 2A, and 2B (CDFW 2023b), and that the scientific community considers threatened or endangered in California
- Plants designated as CRPR 3 and 4 with a locally significant population that meets the criteria under State CEQA Guidelines, section 15380, subdivision (d)
- Species considered rare, threatened, or endangered under CEQA Guidelines 15380(d) as the species' survival and reproduction in the wild are in immediate jeopardy, present in such small numbers throughout all or a significant portion of its range that it may become endangered, or likely to become endangered within the foreseeable future throughout all or a significant portion of its range

Based on the literature review and species lists obtained from U.S. Fish and Wildlife Service (USFWS) (Information for Planning and Consultation [IpaC] Trust Resource Report) (Sacramento Office Consultation code: 2022-0016427) and from National Marine Fisheries Service (NMFS) (NMFS 2022b) for Cuttings Wharf

quadrangle, and CDFW (CDFW 2023), 55 special-status species have been reported within a 5-mile radius surrounding the Project area.

The determinations for the potential for species to occur in the Project area are based on the species' range and habitat requirements, the habitats present within the Project area, and observed vegetation and wildlife present during field surveys. In addition, species typically associated with other regional habitat types may use the Napa River and Suscol Creek as a movement corridor. In total, six federally threatened or endangered species and six State threatened or endangered species, as well as 22 other special-status species, have the potential to occur in the Project area. A complete detailed list of special-status species known to occur in the Project region, preferred habitat, and potential habitat occurrence in the Project area is included in Table 3.4-1.

Special Status Plants

There are nine special-status plant species that are known to occur or have the potential to occur within the Project area based on habitat availability, known locations of species within the vicinity, soils, elevations, and vegetation communities observed: Alkali milk-vetch, Lyngbye's sedge, Soft bird's-beak, San Joaquin spearscale, Delta tule pea, Mason's lilaeopsis, Delta mudwort, Suisun marsh aster, and Saline clover.

Special Status Wildlife

There are 20 special-status wildlife species that are known to occur or have the potential to occur within the Project area based on habitat availability and known locations of species within the vicinity. Certain species, such as vernal pool invertebrate and amphibian species, may occur within the quadrangle or within 5 miles of the BSA; however, based upon a thorough analysis, these species were determined to be absent due to a lack of suitable habitat. Other species may have been eliminated from consideration because the Project area is beyond the recorded geographic or elevational range for these species. Based upon habitats and vegetation communities observed and the criteria described above, the following special-status wildlife species have the potential to be found in the Project area: green sturgeon, pacific and river lamprey, delta smelt, Central California coast steelhead, Central Valley Fall-run Chinook Salmon, Sacramento splittail, longfin smelt, western pond turtle, tricolored blackbird, golden eagle, ferruginous hawk, Swainson's hawk, northern harrier, white-tailed kite, saltmarsh common yellowthroat, California black rail, song sparrow ("San Pablo" population), osprey, and salt marsh harvest mouse.

Table 3.4-1. Potential Occurrence of Special-Status Species in the Project Area

Scientific Name	Common Name	Status[1]	Habitat	Probability of Occurrence
PLANTS				
Allium peninsulare var. *franciscanum*	Franciscan onion	1B.2	Cismontane woodlands and valley and foothill grasslands, in clay soils often with a serpentine influence. Found at elevations ranging from 170 to approximately 1,000 feet. Blooms from May to June, sometimes in April.	**None.** No suitable habitat is present at the Project site. The nearest occurrence (Occ. #27) from 2000 is approximately 3 miles northwest of the Project area.
Astragalus tener var. *tener*	Alkali milk-vetch	1B.2	Playas, valley, foothill grassland (adobe soils), and vernal pools at elevations ranging from 3 to approximately 200 feet. Blooms from March to June.	**Moderate.** Habitat at the Project area is poor quality for alkali milk-vetch. No vernal pools occur onsite, and Alkali milk-vetch was not observed during rare plant surveys conducted during the appropriate blooming window. The nearest occurrence (Occ. #41) from 1982 is approximately 0.7 miles north of the Project site but is considered extirpated. The nearest extant occurrence (Occ. #50) from 1993 is approximately 5.4 miles south of the Project site.

Scientific Name	Common Name	Status[1]	Habitat	Probability of Occurrence
Brodiaea leptandra	Narrow-anthered brodiaea	1B.2	Volcanic, broadleaf upland forest, chaparral, cismontane woodland, lower montane coniferous forest, or valley and foothill grassland. Found at elevations ranging from 360 to approximately 3,000 feet. Blooms from May to July.	**None.** No suitable habitat is present at the Project site. The nearest occurrence (Occ. #30) from 2009 is approximately 2.6 miles northeast of the Project site.
Carex lyngbyei	Lyngbye's sedge	2B.2	Brackish or freshwater marshes and swamps at elevations ranging from 0 to 30 feet. Blooms from April to August.	**Moderate.** Potentially suitable habitat for Lyngbye's sedge is present along the banks of the Napa River and in the adjacent brackish marshes. Lyngbye's sedge was not observed during rare plant surveys conducted during the appropriate blooming window (Padre 2022). The nearest occurrence (Occ. #28) from 2008 is approximately 2.3 miles northwest of the Project site.
Ceanothus purpureus	Holly-leaved ceanothus	1B.2	Volcanic, rocky soils within chaparral and cismontane woodland at elevations ranging from 400 to approximately	**None.** No suitable habitat is present at the Project site. The nearest occurrence (Occ. #47) from 2008 is approximately 3 miles northeast of the Project site.

Scientific Name	Common Name	Status[1]	Habitat	Probability of Occurrence
			2,100 feet. Blooms from February to June.	
Chloropyron molle ssp. *molle*	Soft bird's-beak	FE, SR, 1B.2	Coastal salt marshes and swamps at elevations ranging from sea level to approximately 10 feet. Blooms from July to November.	**Moderate.** Suitable habitat is present in the brackish marshes located along the Napa River. Soft bird's-beak was not observed during rare plant surveys conducted during the appropriate blooming window (Padre 2022). The nearest occurrence (Occ. #3) from 2010 is approximately 1.1 miles south of the Project site at the Fagan Marsh Ecological Reserve.
Downingia pusilla	Dwarf downingia	2B.2	Valley and foothill grasslands and vernal pools at elevations ranging from 1 to 1,460 feet. Blooms from March to May.	**Low.** No suitable vernal pool habitat is present at the Project site. The nearest occurrence (Occ. #108) is an undated location that is approximately 0.6 miles east of the Project site.
Erigeron greenei	Greene's narrow-leaved daisy	1B.2	Chaparral communities within serpentinite, volcanic soils at elevations between 260 to approximately 3,295 feet. Blooms from May to September.	**None.** No suitable habitat is present at the Project site. The nearest occurrence (Occ. #16) from 2009 is approximately 2.6 miles northeast of the Project site.
Extriplex joaquinana	San Joaquin spearscale	1B.2	Alkaline soils in chenopod scrub, meadows and	**Moderate.** No suitable habitat is present at the Project site. The

Scientific Name	Common Name	Status[1]	Habitat	Probability of Occurrence
			seeps, playas, and valley and foothill grasslands. Typically occurs at elevations ranging from sea level to approximately 2,700 feet. Blooms from April to October.	nearest occurrence (Occ. #38) from 1991 is approximately 2.1 miles north of the Project site.
Lasthenia conjugens	Contra Costa goldfields	FE, 1B.1	Mesic soils in cismontane woodlands, alkaline playas, valley and foothill grasslands, and vernal pools at elevations ranging from sea level to approximately 1,540 feet. Blooms from March to June.	**Low.** Habitat at the Project site is poor quality for Contra Costa goldfields. No vernal pools occur onsite. Contra Costa goldfields was not observed during rare plant surveys conducted during the appropriate blooming window (Padre, 2022). The nearest occurrence (Occ. #1) last updated in 2017 is approximately 0.6 miles northeast of the Project site in volcanic vernal pools and remnant valley grassland.
Lathyrus jepsonii var. *jepsonii*	Delta tule pea	1B.2	Freshwater and brackish marshes at elevations ranging from sea level to approximately 20 feet. Blooms from May to July, occasionally to September.	**High.** Suitable habitat is present on the banks of the Napa River and adjacent marsh habitats. Several CNDDB records are located in the vicinity of the Project site along the Napa River. The nearest occurrence (Occ. #124) is located along the east bank of the Napa River within the study area. Delta

Scientific Name	Common Name	Status[1]	Habitat	Probability of Occurrence
				tule pea was not observed during rare plant surveys conducted during the appropriate blooming window (Padre 2022).
Legenere limosa	Legenere	1B.1	Vernal pools at elevations ranging from sea level to approximately 2,900 feet. Blooms from April to June.	**None.** No suitable vernal pool habitat is present at the Project site. The nearest occurrence (Occ. #7) from 1987 is approximately 0.6 miles northeast of the Project site.
Leptosiphon jepsonii	Jepson's leptosiphon	1B.2	Volcanic soils within chaparral, cismontane woodland, and valley and foothill grassland habitat. Found at elevations ranging from 300 to approximately 1,600 feet. Blooms from March to May.	**None.** No suitable habitat is present at the Project site. The nearest occurrence (Occ. #12) from 2004 is approximately 3.7 miles northwest of the Project site.
Lilaeopsis masonii	Mason's lilaeopsis	SR, 1B.1	Freshwater and brackish marshes at elevations ranging from sea level to approximately 30 feet. Blooms from April to November.	**High.** Suitable habitat is present on the banks of the Napa River and in adjacent brackish marshes. Several CNDDB records are in the Project vicinity along the Napa River. The nearest occurrence (Occ. #10) from 2015 is mapped along the Napa River through the Project site. Mason's lilaeopsis was not observed during rare plant surveys

Scientific Name	Common Name	Status[1]	Habitat	Probability of Occurrence
				conducted during the appropriate blooming window (Padre 2022); however, recorded occurrences are reported on the banks of the Napa River in the Project area. Because of its occurrence on mud banks in the tidal zone, populations of this species are often altered or lost due to bank erosion and dynamic shorelines.
Limosella australis	Delta mudwort	2B.1	Freshwater and brackish marshes, usually on the muddy banks of streams. Found at elevations ranging from sea level to approximately 10 feet. Blooms from April to August.	**High/Present.** Suitable habitat is present on the banks of the Napa River and in adjacent brackish marshes. A single blooming individual and several potential non-blooming individual plants were observed during rare plant surveys conducted on May 25, 2022. Follow-up surveys were conducted in August to confirm identification and population size, and the individuals previously observed were no longer present due to recent bank erosion. New vegetation was recolonizing the eroded bank, but individual plants were very small and unidentifiable. Because of its occurrence on mud banks in the tidal zone, populations

Scientific Name	Common Name	Status[1]	Habitat	Probability of Occurrence
				of this species are often altered or lost due to bank erosion and dynamic shorelines.
Symphyotrichum lentum	Suisun Marsh aster	1B.2	Freshwater and brackish marshes and swamps at elevations ranging from sea level to approximately 10 feet. Blooms from April to November.	**High.** Suitable habitat is present in the work area. Suisun marsh aster was not observed during rare plant surveys conducted during the appropriate blooming window (Padre 2022). The nearest occurrences (Occ. #55 and 18) from 1992 and 1991 are located approximately 1.2 miles north and south of the Project site in marshlands adjacent to the Napa River.
Trifolium amoenum	Two-fork clover/Showy Indian clover	FE, 1B.1	Coastal bluff scrub and Valley and foothill grasslands sometimes with serpentinite. Found at elevations ranging from 15 to approximately 1,360 feet. Blooms from April to June.	**None.** No suitable habitat is present at the Project site. Occurrences near the site (Occ. #7 and 24) are several decades old and one is presumed to be extirpated.
Trifolium hydrophilum	Saline clover	1B.2	Marshes and swamps, alkaline valley and foothill grasslands, and vernal pools at elevations ranging from sea level to	**Moderate.** Suitable habitat is present in the work area. Saline clover was not observed during rare plant surveys conducted during the appropriate blooming

Scientific Name	Common Name	Status[1]	Habitat	Probability of Occurrence
			approximately 980 feet. Blooms from April to June.	window (Padre 2022). The nearest occurrence (Occ. #35) from 1993 is approximately 0.8 miles east of the Project site along Suscol Creek.
Viburnum ellipticum	Oval-leaved viburnum	2B.3	Chaparral, cismontane woodlands, and lower coniferous forests at elevations ranging from 700 to approximately 4600 feet. Blooms from May to June.	**None.** No suitable habitat is present at the Project site. The nearest occurrence (Occ. #7) from 2012 is approximately 2.9 miles northeast of the Project site.
INVERTEBRATES				
Branchinecta conservatio	Conservancy Fairy Shrimp	FE	Endemic to the grasslands of the northern two-thirds of the central valley; found in large, turbid pools. Regionally inhabits astatic pools located in swales formed by old, braided alluvium, filled by winter/spring rains and lasting until June.	**None.** No suitable habitat is present at the Project site. The nearest occurrence (Occ. #14) from 2011 is approximately 16.3 miles east of the Project site.
Branchinecta lynchi	Vernal pool fairy shrimp	FT	Endemic to the grasslands of the central valley, central coast mountains and south coast mountains, in astatic rain-filled pools. Regionally	**None.** No suitable habitat is present at the Project site. The nearest occurrence (Occ. #232) from 2003 is approximately 2.1 miles south of the Project site.

Scientific Name	Common Name	Status[1]	Habitat	Probability of Occurrence
			inhabits small, clear-water sandstone depression pools and grassed swale, earth slump or basalt-flow depression pools.	
Danaus plexippus	Monarch Butterfly	FC	Roost in eucalyptus, Monterey cypress, Monterey pine, and other trees in groves along the Pacific coastline of California, arriving starting in late October. Dispersal from these roosts generally begins in mid-February. Milkweed and nectar plant availability throughout the spring, summer and fall is important for monarch migration. In areas of the desert southwest, monarchs use nectar and milkweed plants throughout much of the year.	**Low.** There is no suitable breeding habitat. Overwintering habitat is present in the Project area in the eucalyptus groves located on the east and west sides of the Napa River. Roosting in this part of the Delta is considered abnormal but has been observed. The nearest occurrence (Occ. #44) from 1986 is in a eucalyptus grove approximately 8.6 miles southwest of the Project site. This overwintering occurrence is thought to be a one-time event for the area. The nearest contemporary occurrence (Occ. #19) last observed in 2015 is in a eucalyptus grove approximately 9.6 miles south of the Project site.
Syncaris pacifica	California freshwater shrimp	FE, SE	The species is known to occur in only 17 streams in Marin, Napa, and Sonoma Counties. It occurs in pools	**Low.** The upper reaches of Suscol Creek east of the Project area may provide habitat seasonally within areas providing undercut banks

Scientific Name	Common Name	Status[1]	Habitat	Probability of Occurrence
			of low gradient and low velocity freshwater streams with abundant riparian growth, undercut banks, and submerged roots, rocks, and aquatic vegetation. This species is tolerant of warm stream temperatures and low flow but is not tolerant of brackish water.	and overhanging vegetation preferred by the species; however, there are no recorded occurrences of this species in Suscol Creek. Within the Project area Suscol Creek is tidally influenced with brackish water in the lower part and has sloped banks and no riparian cover and was dry in the upper portion with riparian vegetation during May 2022 surveys. The nearest occurrence (Occ. #5) from 1990 is approximately 3.7 miles west of the Project site in Huichica Creek.
FISH				
Acipenser medirostris	Green sturgeon – Southern DPS	FT	Anadromous fish species found in near shore marine and estuarine environments from Alaska to Baja California, Mexico. Juveniles have been collected in the San Francisco Bay up to the lower reaches of the Sacramento and San Joaquin Rivers. Green sturgeon depends on large rivers to spawn,	**Moderate.** Marginal habitat occurs in the Project area. The nearest occurrence (CNDDB Occ. #10) is 3.8 miles downstream from the Project area. This CNDDB occurrence is a general occurrence for the known range of the species in the San Francisco Bay-Delta and tributaries and includes the lower Napa River. Green sturgeon is not known to spawn in the Napa River. Data from angler self-reporting indicates

Scientific Name	Common Name	Status[1]	Habitat	Probability of Occurrence
			typically in deep pools in large turbulent mainstem rivers. The Sacramento River watershed is the only confirmed present and historical spawning area. Spawning occurs in the Sacramento River and has recently been documented in the Feather River and Yuba River (tributaries to the Sacramento River). The San Francisco Bay Delta Estuary provides year-round rearing habitat for juveniles and foraging habitat for non-spawning adults and subadults in summer months (NMFS, 2018).	catch of subadult green sturgeon in the Napa River (NMFS 2018).
Eucyclogobius newberryi	Tidewater Goby	FE	Brackish water along the coast preferring streams that create depositional berms protecting the outlet from higher levels of salinity.	**None.** Suitable lagoon habitat is not present in the Project area. Historically present in the Napa River Basin, is now likely extirpated (Napa County Resource Conservation District 2009).

Scientific Name	Common Name	Status[1]	Habitat	Probability of Occurrence
Entosphenus tridentata	Pacific lamprey	CSC	The adults live at least one to two years in the ocean and then return to fresh water to spawn. Require gravel for spawning.	**Moderate.** Pacific lampreys have been historically or recently documented in many streams of the San Francisco Bay area, including the Napa River. Information for streams in the Bay Area consists primarily of presence or absence surveys; long-term trend data are not available (USFWS 2004). The species could be found in the vicinity of the Project area; however, habitat is not suitable for spawning. Pacific lampreys have been documented at the Napa River rotary screw trap located approximately 8.5 miles upstream on the Napa River between Napa and Yountville every year between 2010 and 2020 (Napa RCD 2020).
Hypomesus transpacificus	Delta smelt	FT, SE	Endemic to the Sacramento/San Joaquin Delta, they occur in the Delta primarily below Isleton on the Sacramento River, below Mossdale on the San Joaquin River, and in Suisun Bay. Delta smelt mainly inhabits the	**Moderate.** The center of delta smelt abundance is the northwestern Delta in the channel of the Sacramento River and all life stages have the potential to occur in Suisun Bay. San Pablo Bay and Napa River are within the West Zone of the delta smelt range. Delta smelt can occur in San Pablo

Scientific Name	Common Name	Status[1]	Habitat	Probability of Occurrence
			freshwater-saltwater mixing zone of the estuary, except during its spawning season, when it moves into freshwater during the early spring months from March until May.	Bay, Napa Marsh, and Napa River though this is the western limits of their range. It is not known if delta smelt in San Pablo Bay are a permanent population or if they are washed into the Bay during high outflow periods. The nearest CNDDB occurrence (Occ#5) is from 2004 in a small channel in restored wetlands in Napa Sonoma Marshes Wildlife Area six miles south of the Project area. The nearest, most recent documented occurrence of delta smelt is IEP Station 344 in April 2019 and Station 346 in April and May 2017 (IEP 2022).
Lampetra ayresi	River lamprey	CSC	Lower Sacramento, San Joaquin, and Russian Rivers. Spawning may occur in gravelly riffles in permanent streams with sandy backwaters for ammocoetes.	**Moderate.** River lamprey have been historically reported in the Napa River; however, most records for river lamprey are for the lower Sacramento and San Joaquin River system tributaries in the Central Valley, especially in the Stanislaus and Tuolumne Rivers (USFWS 2004). River lampreys appear to spawn regularly in Salmon Creek and tributaries to the lower Russian River. River lamprey data are

Scientific Name	Common Name	Status[1]	Habitat	Probability of Occurrence
				limited in California and long-term data are not available; most occurrence data are incidental to salmonid surveys. River lamprey have been documented at the Napa River rotary screw trap located on the Napa River approximately 8.5 miles upstream between Napa and Yountville in most years between 2010 and 2020 (Napa RCD 2020).
Oncorhynchus mykiss irideus	Central California coast DPS steelhead (pop. 8)	FT	Anadromous species native to the Pacific Ocean and coastal drainages. Steelhead make spawning runs into rivers and small creeks flowing into the ocean. Spawning takes place in the rivers from December to April with most spawning activity occurring between January and March.	**High.** The species has historically been found in the vicinity of the Project area seasonally during migration to spawning habitat upstream of the site. Occurrences both upstream (Occ. #27, 2004, 20 miles upstream) and downstream (Occ. #4, 2005, 5.3 miles downstream) of Project area. However, habitat in the Napa River at the Project location is considered migration corridor and is not suitable for spawning. However, Suscol Creek is considered suitable spawning habitat and Steelhead are known to spawn in the middle reach of Suscol Creek upstream of the

Scientific Name	Common Name	Status[1]	Habitat	Probability of Occurrence
				Project site in high water years (Becker et al. 2007; Dewberry 2007; Napa County RCD 2009).
Oncorhynchus tshawytscha	Central Valley fall-run chinook salmon ESU	CSC	Sacramento River, Sacramento-San Joaquin Delta, and San Francisco Bay	**High.** The species could be found in the vicinity of the Project area seasonally during migration to spawning habitat upstream of the Project area. An estimated run of 400 to 600 Central Valley fall-run Chinook salmon spawn annually in the mainstem Napa River with most spawning occurring upstream from Yountville to Calistoga (Napa County RCD 2009). CDFW spring 20-mm net surveys from March 2018 detected Chinook salmon at station 345 in the lower Napa River. CDFW fall mid-water trawl surveys also recorded fall run Chinook salmon in September 2017 at station 340 in the lower Napa River (IEP 2022).
Pogonichthys macrolepidotus	Sacramento splittail	CSC	Commonly occur in Sacramento River, Sacramento-San Joaquin Delta. Occasionally will migrate out to, and San	**Moderate.** The species is known to occur in the lower Napa River. The San Pablo Bay population spawns in brackish waters of Petaluma and Napa River floodplains. Juvenile rearing is known to occur in lower restored tidal marsh in lower Napa

Scientific Name	Common Name	Status[1]	Habitat	Probability of Occurrence
			Francisco and Pablo Bay during high flow years.	River (CDFW 2008). Nearest CNDDB occurrence (Occ#5) is from 2004 in a small channel in restored wetlands in Napa Sonoma Marshes Wildlife Area six miles south of the Project site. The nearest, most recent documented occurrence of Sacramento splittail is IEP Stations 340 and 343 (lower Napa River) in May 2019 (IEP 2022).
Spirinchus thaleichthys	Longfin smelt – San Francisco Bay-Delta DPS	FC, ST,	Occupies a variety of coastal waters including estuaries, bays, and rivers. During breeding, this species spawns in freshwater tributaries near the ocean.	**High.** Suitable habitat occurs in the Project area. Nearest CNDDB occurrence (Occ. #26) from 2012 was recorded in the Napa River through the Project area. Additionally, individuals were detected in the Project area (IEP station 345 and 346) during March 2022, 20-mm net surveys and in the lower Napa River downstream of the site in May and June of 2022 (IEP 2022).
AMPHIBIANS				
Rana boylii (pop. 1)	Foothill yellow-legged frog (north coast DPS)	CSC	Occurs in the foothills of the Coast, Cascade, and Sierra ranges from sea level to 6,000 feet. It is an inhabitant of rocky	**None.** No suitable habitat present in the Project area. Suscol Creek does not provide suitable breeding habitat and is either tidally influenced or seasonally dry

Scientific Name	Common Name	Status[1]	Habitat	Probability of Occurrence
			streams and rivers with sunny banks in woodlands, forests, and chaparral. Typically, higher grade perennial streams with pools and riffles although can be found in isolated pools or ponds or seasonal creeks.	throughout most of the Project area. The nearest occurrence (Occ.# 2341) from the 1930s is approximately 2.8 miles south of the Project site and is considered possible extirpated.
Rana draytonii	California red-legged frog	FT, CSC	Found in marshes, lakes, reservoirs, ponds, slow parts of streams, and other usually permanent water in lowlands, foothill woodlands and grasslands. Require areas with extensive emergent vegetation. High value habitats are deep-water ponds with dense stands of overhanging willows and a fringe of cattails.	**Low.** Potentially suitable upland and dispersal habitat may be present in the Project area; however, no suitable aquatic habitat is present in tidally influenced Napa River and lower reach of Suscol Creek. The nearest occurrence (Occ. #1062) from 2008 is approximately 3.3 miles south of the Project site. This species is unlikely to disperse from nearby occurrences to the Project area.
REPTILES				
Chelonia mydas	Green Sea Turtle	FT	Feeds in shallow waters with abundant submerged vegetation but may venture into deeper water during	**Low.** No suitable habitat is present in the Project area. If turtle is present, it would be due to strong El Niño conditions and/or a sick or injured animal. Green sea turtle

Scientific Name	Common Name	Status[1]	Habitat	Probability of Occurrence
			migration. Nesting occurs on open sandy beaches preferably with minimal disturbance. Can occur in central California waters during strong El Nino years.	was observed mid-November of 2015, during one of the strongest El Niños ever recorded, swimming in the San Joaquin River in Lathrop near Manteca, approximately 90 miles upriver from the Golden Gate Bridge (Nafis 2022).
Emys marmorata	Western pond turtle	CSC	Ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Needs basking sites and suitable upland habitat (sandy banks or grassy open fields) for egg laying.	**Moderate.** Suitable habitat is present in the Project area on the Napa River and Suscol Creek. The nearest occurrence (Occ. #493) from 1996 is located approximately 1.3 miles north of the Project site.
BIRDS				
Agelaius tricolor	Tricolor blackbird	ST, CSC, BCC	Breeding habitat is often found near a source of water and in a grassland, woodland, or agricultural cropland.	**Moderate.** Suitable is habitat present in the Project area in the irrigated grasslands adjacent to marsh habitats, though grasses present in irrigated pasture are not a preferred nesting substrate for tricolored colonies due to lack of structure. Nesting colonies of red-winged blackbird were observed in these areas during biological surveys. The nearest occurrence (Occ. #244) from 1993 is in a marsh

Scientific Name	Common Name	Status[1]	Habitat	Probability of Occurrence
				located approximately 0.2 miles north of the Project site.
Aquila chrysaetos	Golden eagle	FP, BCC	Forages over open grasslands, savannahs, and deserts. Nests in large trees or cliffs.	**Moderate.** Suitable nesting habitat present in large eucalyptus and valley oak trees in the Project area. The nearest occurrence (Occ. # 82) from 2005 is in a eucalyptus tree approximately 0.5 miles west of the Project site.
Athene cunicularia	Burrowing owl	CSC, BCC	Found in open, dry annual or perennial grasslands, deserts, and scrublands, Breeding is dependent on California ground squirrel burrows.	**Low.** Suitable foraging and over-wintering habitat occurs within the terrestrial areas of the Project area; however, the Project area lacks small mammal burrow colonies required for suitable nesting habitat. The nearest occurrence (Occ. #935) from 2006 is approximately 1 mile southeast of the Project site.
Buteo regalis	Ferruginous hawk	BCC	Spends the breeding months in the northern United States and Canada. Spends winter foraging in the southwestern United States and Mexico. Forages in open grasslands, fields,	**Moderate.** Overwintering habitat is present in the Project area. The nearest occurrence (Occ. #28) from 1988 is in the grasslands adjacent to the southeastern border of the Project site.

Scientific Name	Common Name	Status[1]	Habitat	Probability of Occurrence
			and deserts. Begins breeding in April	
Buteo swainsoni	Swainson's hawk	ST, BCC	Breeds in stands with few trees in juniper-sage flats, riparian areas and in oak savannah. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	**High.** Suitable nesting and foraging habitat present in the Project area. The nearest occurrence (Occ. #1619) from 2013 is located approximately 0.2 miles east of the Project site along Suscol Creek. There are four additional occurrences within 1 mile of the Project site.
Charadrius nivosus nivosus	Western Snowy Plover	FT, CSC, BCC	Breeds on sandy beaches, dunes, salt flats, and mud flats.	**None.** Suitable habitat is not present in Project area. Nearest occurrence (Occ. #5) from 1991 is approximately 24 miles east of the Project site.
Circus hudsonius	Northern harrier	CSC	Forages and nests in freshwater and brackish marshes and their adjacent grasslands.	**Moderate.** Suitable nesting and foraging habitat is present in the Project area and this species is relatively common in the region. The nearest occurrence (Occ. # 29) from 2004 is in a coastal salt marsh approximately 3.7 miles southwest of the Project site.
Elanus leucurus	White-tailed kite	FP	Rolling foothills / valley margins with scattered oaks and river bottomlands or marshes	**Moderate.** Suitable nesting and foraging habitat present in the Project area and this species is relatively common in the region.

Scientific Name	Common Name	Status[1]	Habitat	Probability of Occurrence
			next to deciduous woodland. Forages over grasslands, marshes, and oak savannas close to isolated, dense-topped trees for nesting and perching.	The nearest occurrence (Occ. #181) from 2018 is approximately 2 miles north of the Project site.
Falco peregrinus anatum	American peregrine falcon	FP, BCC	Nests consists of a scrape or a depression or ledge in an open cliff sites, banks, dunes, mounds, or man-made structures near wetlands, lakes, rivers, or other water.	**Low.** No suitable nesting habitat is present within the Project area. Suitable foraging habitat is present. The nearest potentially suitable nesting habitat is located nearby at the Highway 12 bridge crossing of the Napa River approximate 0.1-mile north of the Project site, though there are no known occurrences from this location. The nearest occurrence (Occ. #42) from 2015 is in an undisclosed location in the Cordelia quadrangle approximately 1.5 miles east of the Project site.
Geothlypis trichas sinuosa	Saltmarsh common yellowthroat	CSC, BCC	Found in emergent wetlands, low, dense vegetation near water. They nest in vegetation 12 feet above ground. Locally, found in coastal riparian and wetland	**Moderate.** Suitable nesting and foraging habitat present in the Project area. Yellowthroat vocalizations were heard during surveys although it is unclear if they were from this subspecies. The nearest occurrences (Occ.#37

Scientific Name	Common Name	Status[1]	Habitat	Probability of Occurrence
			areas of western Marin County, the tidal marsh system of San Pablo Bay, the tidal marsh system of southern San Francisco Bay, and coastal riparian and wetland areas in San Mateo County.	and 94) from 2004 and 1989 are approximately 1 mile south and 1.5 miles north of the Project site.
Laterallus jamaicensis coturniculus	California black rail	ST, FP, BCC	Permanent resident of saline, brackish, and freshwater marshes containing dense tall growths of emergent vegetation. They prefer a thick canopy of vegetation with a relatively open understory. Nests are placed above ground level under heavy cover and are accessed from a side entrance. They also require vegetation around the periphery of the marsh for cover during the highest tides	**Present.** An assessment of habitat suitability and passive surveys for Ridgway's rail and black rail was performed in the Project area by rail biologists (GANDA 2020). No rail species were heard or observed during surveys, and small areas of intertidal marsh with saltmarsh associated plants were determined to be more closely aligned with habitats known to be utilized by black rail but were considered unlikely to occur due to small size and discontinuity of the vegetation (GANDA 2020). Two black rail individuals were heard calling during surveys conducted by Padre in May 2022 in the brackish marsh on the east side of the Napa River near the railroad tracks. Suitable nesting habitat is

Scientific Name	Common Name	Status[1]	Habitat	Probability of Occurrence
				present in the Project area on the east bank of the Napa River. The nearest CNDDB occurrence (Occ. #31) from 2010 is located approximately 0.7 miles south of the Project site. An unprocessed reported occurrence from 2021 has been submitted to CNDDB documenting this species in the same location where individuals were heard during surveys.
Melospiza melodia samuelis	Song sparrow ("San Pablo" population)	CSC, BCC	Endemic to tidal salt marshes in the San Pablo Bay preferring high salt marsh habitat with pickleweed and gumplant adjacent to tidal waters. Requires tall dense vegetation for successful nesting.	**Moderate.** Potentially suitable nesting habitat present in the Project area. Song sparrows were observed at the Project site during surveys although it is unclear if they were from this subspecies. The nearest occurrence (Occ. #16) from 2004 is approximately 1.4 miles southeast of the Project site.
Pandion haliaetus	Osprey	WL	Occurs throughout California except within the deserts, Great Basin, and Central Valley. It breeds in large trees, snags, and dead-topped trees in open forest in northern California from the Cascade Range to	**Present.** Species was observed nesting near the Project site on a power pole adjacent to the Project area and north of Soscol Ferry Road at the entrance to the Napa Sanitation District. Individuals were also observed foraging over the Napa River.

Scientific Name	Common Name	Status[1]	Habitat	Probability of Occurrence
			Marin County along the coast, and to the southern Sierra Nevada range. Nests are situated near ocean shores, bays, lakes, river, and large streams, which are required for foraging primarily on fish.	
Rallus obsoletus obsoletus	California Ridgway's rail	FE, SE, FP	Requires tidal sloughs that have direct tidal circulation, predominant cover of pickleweed with stands of Pacific cordgrass (*Spartina foliosa*) at lower elevations, high marsh cover consisting of tall stands of pickleweed, gumplant, and wrack, and abundant invertebrate populations.	**Low.** An assessment of habitat suitability and passive surveys for Ridgway's rail and black rail was performed in the Project area by rail biologists (GANDA 2020). No rail species were heard or observed during surveys, and small areas of intertidal marsh with saltmarsh associated plants were determine unlikely to support presence of Ridgway's rail due to small size and discontinuity of the vegetation, lack of connectivity with larger areas of suitable habitat and known occurrence, and absence of preferred vegetation complexes, branching tidal channels, and high tide dispersal habitat (GANDA 2020). The Project area is also not within modeled habitat for Ridgway's rail in PG&E's

Scientific Name	Common Name	Status[1]	Habitat	Probability of Occurrence
				BAHCP (ICF, 2017). The nearest occurrence (Occ. #16) from 1989 is approximately 1.2 miles south of the Project site. An additional more recent occurrence (Occ.#13) from 2015 is approximately 2.5 miles south of the Project area at Edgerly Island. Both occurrences are in Napa Sonoma Marshes Wildlife Area and both occurrences are considered extant.
Sternula antillarum browni	California least Tern	FE, SE, FP	Breeds in the San Francisco Bay Area but overwinters in southern Mexico and Central America. Breeds on sandy coastal beaches, estuaries, lagoons, bays, and along freshwater lakes near the coast.	**None.** Suitable habitat is not present in the Project area. The nearest occurrence (Occ. #61) from 1983 is approximately 20 miles southeast of the Project site.
Strix occidentalis caurina	Northern Spotted Owl	FT, ST	Typically confined to unlogged, expansive coniferous forests with dense canopies and large trees.	**Absent.** Suitable habitat is not present in the Project area. The nearest occurrences are located approximately 7.6 miles northwest of the Project site.
MAMMALS				
Antrozous pallidus	Pallid bat	CSC	Day roosts is caves and crevices; occasionally	**Low.** Potentially suitable foraging habitat present in the Project area

Scientific Name	Common Name	Status[1]	Habitat	Probability of Occurrence
			roosts in hollow trees and buildings.	although potential roosting sites are very limited. The nearest occurrence (Occ. #57) last seen in 1997 is approximately 1.4 miles west of the Project site.
Reithrodontomys raviventris	Salt marsh harvest mouse	FE, SE, FP	Salt marshes with dense pickleweed cover in the San Francisco, San Pablo, and Suisun Bays.	**High.** Suitable habitat for this species is present in the pickleweed mat communities located along the east side of the Napa River in the Project area. The saltmarsh habitat on the east side of the Napa River within the Project area is also within modeled habitat for SMHM in the PG&E BAHCP (ICF 2017). The nearest occurrence (Occ. #119) from the 1970s is located in the marsh habitat along the eastern side of the Napa River at the Project site and is considered extant. Small mammal trapping surveys conducted by CDFW in 2013 found salt marsh harvest mouse in pickleweed habitat located on the west side of the Napa River approximately 0.2 miles south of the Project site (CDFW 2013).

Scientific Name	Common Name	Status[1]	Habitat	Probability of Occurrence
Taxidea taxus	American badger	CSC	Most abundant in drier open stages of most shrub, forest and herbaceous habitats, with friable soils. Need sufficient food, friable soils and open, uncultivated ground.	**Low.** Marginally suitable habitat is present on the west side of Napa River in the Project area; however, no small mammal burrowing colonies were observed in this grassland habitat making presence of American badger less likely. The nearest occurrences (Occ. #203 and 301) from 1911 and 1937 are approximately 0.2 miles west and 2.8 miles north of the Project site respectively.

[1] Status Terms:
FE = Federal Endangered
FC = Federal Candidate
SE = California State Endangered
ST = California State Threatened
SR = California State Rare (listed under Native Plant Protection Act)
FP = CDFW Fully Protected
CSC = California Species of Special Concern
WL = Watch List Species
BCC = USFWS Bird of Conservation Concern
CRPR 1B.1 = Threatened in California and elsewhere, seriously threatened in California
CRPR 1B.2 = Threatened in California and elsewhere, moderately threatened in California
CRPR 2B = Plants rare, threatened, or endangered in California but more common elsewhere

Phase 1 is anticipated to be implemented the third quarter of 2024, depending on the timing of regulatory permit issuance. No in-water construction would occur during Phase 1 replacement of the pipeline. Phase 2 is currently planned for implementation following the completion of Phase 1, possibly as early as 2024, depending on the timing of completion of the HDD during Phase 1 and the acquisition of regulatory permits. All in-water work associated with Phase 2 would be conducted during the seasonal aquatic work window of August 1 to October 31. The seasonal aquatic work window is an agency-approved work window for avoidance and minimization of special-status fish species outside of the seasonal migrations and spawning periods. The seasonal work window may be modified based on conditions of permits issued by regulatory agencies.

3.4.1.5 Wildlife Corridors

Wildlife migration corridors are generally defined as connections between fragmented habitat patches that allow for physical and genetic exchange between otherwise isolated wildlife populations. Migration corridors may be local, such as those between foraging and nesting or denning areas, or they may be regional in extent. Migration corridors are not unidirectional access routes; however, reference is usually made to source and receiver areas in discussions of wildlife movement networks. "Habitat linkages" are migration corridors that contain contiguous (connecting) strips of native vegetation between source and receiver areas. Habitat linkages provide cover and forage sufficient for temporary inhabitation by a variety of ground-dwelling animal species. Wildlife migration corridors are essential to the regional fitness of an area as they provide avenues of genetic exchange and allow animals to access alternative territories as fluctuating dispersal pressures dictate.

Waterways, particularly areas with contiguous riparian vegetation offer migration corridors for mammals, reptiles, and birds. The riparian corridor along the Napa River is very limited at the Project location and the River corridor is intersected by Highway 12 just north of the Project area. However, there is riparian cover on Suscol Creek within the Project area. Mammals and reptiles present within the area likely use the upland agricultural and range lands as well as riparian cover as a travel corridor regardless of the season. The east side of the Project area abuts the Napa Sanitation District. Much of this property near the Project area consists of developed lands, with motor vehicle traffic, facility operations equipment, and railroad tracks, which limits the suitability as a migration corridor for terrestrial wildlife to the east of the River. Birds such as warblers and hummingbirds migrate to higher elevations in the spring and lower

elevations in the fall and the riparian habitat within the Project area offers shelter, food, and water for migrating species traversing to the Sierra Nevada Range to nest. Resident (long-term) species may make local migrations for foraging and/or nesting habitat along the River. Additionally, the River and Suscol Creek provide seasonal migration habitat for anadromous and other native fish species moving upstream to spawning habitat and provide connections for resident fish species to other aquatic habitats within the watershed.

3.4.2 Regulatory Setting

Federal and state laws and regulations pertaining to biological resources and relevant to the Project are identified in Appendix A. Local policies or regulations applicable to the Project with respect to biological resources are identified in Appendix B.

3.4.2.1 PG&E Bay Area Habitat Conservation Plan

PG&E has a USFWS-approved Habitat Conservation Plan (HCP) that provides a comprehensive framework to conserve and protect federally listed species in support of a federal incidental take permit for the covered species for PG&E Operations and Maintenance activities in the Bay Area Region (ICF 2017). Project activities in Napa County would be covered by the PG&E Bay Area Habitat Conservation Plan (BAHCP). PG&E's BAHCP was developed in collaboration with the USFWS and was implemented in 2017. The PG&E BAHCP is a model-based HCP that incorporates the use of modeled habitat developed in collaboration with the USFWS for covered species. Modeled habitat is used as a tool to facilitate automatic screening of an impact area to determine covered species occupancy and to apply take coverage for covered species. However, listed species-related impacts of the Project cannot be entirely covered by the PG&E BAHCP because listed fish species that occur within the Project area are not PG&E BAHCP-covered species.

For the purposes of species evaluated in this analysis, the PG&E BAHCP shows modeled habitat for the salt marsh harvest mouse (SMHM) within the Project area. There is suitable habitat for SMHM present in the pickleweed mat primarily located along the east side of the River in the Project area. The saltmarsh habitat in this location is also within modeled habitat for SMHM and is mapped as "Marsh Hot Zone 8" in the PG&E BAHCP (ICF, 2017). A "Hot Zone" is defined in the BAHCP as an area containing an extant population of covered wildlife species with a small and well-defined range where the species would occur and

may be affected by covered activities. Work in these areas requires implementation of hot zone Avoidance and Minimization Measures (AMMs). Hot Zone 8 AMM has been included as a mitigation measure to reduce impacts to SMHM to less than significant (Section 3.4.3., Impact (a) Phase 1, Salt Marsh Harvest Mouse).

However, listed species-related impacts of the Project cannot be entirely covered by the BAHCP because listed fish species that occur within the Project area are not BAHCP-covered species. In addition, because the Project area includes modeled habitat for SMHM, all relevant BAHCP field protocols would be implemented by the Project. These measures would be practicable where physically possible and not conflicting with other regulatory obligations or safety considerations. A list of field protocols can be found in the BAHCP and Appendix E (ICF 2017).

3.4.3 Impact Analysis

Impacts to biological resources in the Project area would be primarily temporary. There will be a temporary loss of terrestrial and aquatic habitats during HDD replacement and tie-in, decommissioning, and removal of pipeline segments. Permanent impacts are not substantial and are limited to the installation of new pipeline markers along the pipeline alignment, sited in upland locations when possible, and are less than 20 square feet (0.0004-acre) in total. General construction would temporarily alter the natural movement and behavior of wildlife through the Project area. Project activities would also result in indirect impacts that would affect the quality of habitat in the Project area.

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, or that is a species of interest to the State Lands Commission or the California Coastal Commission; or cause a marine wildlife population to drop below self-sustaining levels?

Less than Significant with Mitigation

Heavy equipment operation and associated noise, riverbed disturbance, dust from ground disturbance including grading and excavation, and an increase in human presence have the potential to disrupt special-status species and their habitat.

Phase 1

The pipeline replacement components of Phase 1 were designed to avoid direct impact to the aquatic environment with trenchless installation for waterway crossings. Trench installed tie-ins and discharge of treated hydrotest wastewater and groundwater generated by the Project will be primarily limited to upland terrestrial locations and the potential for surface water discharge of treated hydrotest wastewater and groundwater to the River and Suscol Creek.

Ground Disturbance and Noise. The Project includes the use of trenchless pipeline replacement methods (through HDD methods for the River crossing and pipe ramming for the Suscol Creek crossing) that do not require disturbance of special status plants or aquatic habitats and would have a less than significant impact on special-status species.

Special-Status Aquatic Species. Special-status aquatic species that may occur within the River or Suscol Creek include green sturgeon, pacific and river lamprey, delta smelt, Central California coast steelhead, Central Valley fall-run chinook salmon, Sacramento splittail, longfin smelt, and western pond turtle. The depth of the bore hole is approximately 70 feet below the River and will have no impact on special-status aquatic species in the River. The depth of the pipe ramming pipeline installation under Suscol Creek is approximately eight feet below the creek bed and will have no direct impact on aquatic species in Suscol Creek. Indirect impacts could occur if pipe ramming vibrations or noise disturb animal behavior. Minimal studies have been conducted specifically on the effects of pipe ramming in substrate below aquatic habitats; however, there have been studies on the vibration and noise effects of pipe bursting methods which serve as an appropriate proxy in this analysis due to similarities in the nature of the soil displacement and number of blows per minute. Ground vibrations from pipe bursting methods are known to attenuate rapidly and are negligible to surrounding environments, except for directly next to the source. In addition, hard soils and rock are known to cause higher noise levels (USACE 2001). However, due to the types of clay soil with varying levels of sand content that occur beneath Suscol Creek and the short-term nature of the pipe ramming activities, the ground vibration and noise associated with pipe ramming pipeline installation at a depth of 8 feet are not expected to impact organisms within the aquatic environment in Suscol Creek (Kleinfelder 2020).

Water discharge. Hydrotest wastewater and groundwater removed from excavations would be disposed either by discharge to land in upland areas, discharge to surface water, or discharge to a Publicly Owned Treatment Works

(POTW) (i.e., Municipal Wastewater Treatment Plant). Discharge to land or surface water would be performed in accordance with the standing general permit for gas utility construction projects issued by the California State Water Resources Control Board (Statewide General Order for Discharge from Natural Gas Utility Construction, Operations, and Maintenance Activities, Order WQ 2017-0029-DWQ, General Order No. CAG670001). Specific testing and filtration requirements are outlined in this order.

Grassland habitats in the areas defined for potential water discharge within the Project area provide suitable foraging habitat for special-status bird species. Aquatic habitats in Suscol Creek and the River provide potential habitat for migratory fish and Western pond turtles. Water discharge to land would be through perforated pipe or sprinklers and discharge to surface water would be through perforated pipes and diffusers laid on the ground surface. Grassland habitats in the water discharge areas are within irrigated or dryland pastures, so there are no additional impacts to special-status species anticipated from water discharge to land. PG&E would implement Project design measures during surface water discharge to eliminate erosion or impacts related to turbidity including the use of low flow discharge pipes or diffusers over plastic sheeting placed on the bank within the existing Project footprint for each surface water discharge point and secured in place using weighted anchors. These Project design elements would ensure no damage to soil or vegetation and would have less than significant impacts to special status species and their habitats.

Effects on special-status terrestrial species and their habitat during Phase 1 primarily include temporary impacts associated with presence of heavy equipment, excavation for HDD bore pits, pipe ramming excavations and noise, and trenches for connecting replacement pipeline. Following pipeline replacement, all excavations would be backfilled with native soils, and the site restored at the conclusion of work. Temporary direct impacts would occur in grassland, marsh, and riparian habitats, and disturbed areas (Figure 3.4-1). Indirect impacts include invasion of non-native plants into natural areas, noise disturbances, and temporary declines in air quality. There will be no substantive permanent impact to habitat as part of the Project, permanent impacts are limited to the installation of new pipeline markers along the pipeline alignment, sited in upland locations when possible, and are less than 20 square feet (0.0004-acre) in total.

Disturbance from Ground Disturbance, Vegetation Removal and Construction Equipment. Construction activities during Phase 1 have the potential to

indirectly impact nesting and special status birds and the salt marsh harvest mouse (SMHM), specifically in riparian and marsh habitats adjacent to the River and Suscol Creek.

Swainson's Hawk and Nesting Birds. The State-threatened Swainson's hawk occurs in the Project vicinity and could nest in proximity to Project areas. There are known nesting occurrences of Swainson's hawk within 0.2 miles of the Project area, and it is likely that active nests could occur in proximity to construction activities, if conducted during the nesting season. Terrestrial impacts would occur primarily in grasslands as well as marsh habitat in the East Work Area, all of which provide suitable Swainson's hawk foraging habitat; however, terrestrial impacts would be short term and temporary and would not result in permanent impacts or loss of foraging habitat. Additionally, no trees that provide suitable nesting habitat would be removed.

Because Swainson's hawk is a State-listed species, and there are known nesting occurrences in the vicinity of the Project area, there is the potential that construction near a Swainson's hawk nest could disrupt breeding activities if construction occurs during the nesting season. Any Project activities that take place outside the Swainson's hawk nesting season (August 16 to February 28) would avoid potential impacts.

To reduce potential impacts caused by construction noise and disturbance, PG&E shall implement **MM BIO-1** during Swainson's hawk nesting season to protect active Swainson's hawk nests and nestlings and reduce impacts to less than significant:

> **MM BIO-1: Swainson's Hawk Nesting Season Avoidance or Pre-Construction Surveys.** In accordance with the Swainson's Hawk Technical Advisory Committee Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley, Project activities occurring between March 1 and August 15 shall require surveys conducted by a qualified raptor biologist, approved by CSLC staff, for active Swainson's hawk nests within a 0.5-mile radius of the Project area. Pre-construction surveys shall be completed for the two survey periods immediately prior to the start of construction, with the final survey occurring within 15 days prior to any construction disturbance. A pre-construction survey report shall be prepared and submitted to CDFW and CSLC within one week of completed pre-construction surveys, that outlines the surveys conducted, nest locations identified, and recommend nest protection buffers for CDFW approval. If active Swainson's hawk nests are identified near the Project area, then ~~based on nest protection buffers~~

~~outlined in PG&E's Nesting Bird Management Plan~~ the following shall be required:

- Apply a ~~CDFW-approved~~ nest protection buffer~~, with a minimum distance~~ of ~~0.25~~ 0.5 miles from an active nest. Postpone Project activities within the approved nest protection buffer until after the young have fledged and are no longer dependent on the nest tree. The minimum nest protection buffer may be reduced in coordination with CDFW if existing site conditions and disturbance levels indicate that a reduced buffer would be effective.
- If it is not possible to postpone Project activities within the nest protection buffer, construction activities may only proceed with both CDFW approval and nest monitoring by a qualified raptor biologist. If the monitoring biologist observes signs of distress, then they shall stop construction work and coordinate with CDFW to establish additional protection measures to ensure avoidance of nest abandonment prior to the re-start of Project activities.

Ground disturbing activities, the presence of heavy equipment, and vegetation removal during Phase 1 could indirectly impact bird species protected under the Migratory Bird Treaty Act (MBTA) of 1918 (16 USC 703-711) and Fish and Game Code (Sections 3503, 3503.5, and 3800) or other special-status bird species that may nest in the Project area such as golden eagle, northern harrier, white-tailed kite, osprey, tricolored blackbird, saltmarsh common yellowthroat, and song sparrow (San Pablo population). The laws and regulations prohibit the take, possession, or destruction of birds, their nests, or eggs. Disturbance that causes nest abandonment or loss of reproductive effort could be considered a "take." PG&E has developed a Nesting Bird Management Plan (NBMP) which establishes nest buffers for all common and special-status birds that occur within the Project area (PG&E 2015). Nest buffers in the NMBP are based on the best available information, including relevant literature review and avian biology, as well as the level of disturbance in the Project area.

To reduce potential impacts to nesting birds caused by construction noise and vegetation removal, PG&E shall implement **MM BIO-2** to reduce impacts to less than significant levels by scheduling ground disturbing activities outside of nesting season (September 16 to January 31) or requiring pre-construction surveys to identify and protect active nests, if present.

MM BIO-2: Nesting Bird Season Avoidance or Pre-Construction Surveys. If Project-related vegetation removal and ground-clearing activities, or other activities that could disturb nesting birds, are scheduled between February 1 and September 15, then pre-construction surveys shall be

conducted by a qualified biologist within 7 days prior to the start of construction in potential bird nesting habitat within 500 feet of the Project area to identify raptor and passerine nest sites. If an active raptor or passerine bird nest is identified, an appropriate species-specific nest protection buffer shall be identified by a qualified biologist based on PG&E's Nesting Bird Management Plan (NBMP) and site-specific conditions. A pre-construction nesting survey report shall be prepared and submitted to CDFW and CSLC within 1 week of pre-construction surveys, that outlines the surveys conducted, any nest locations identified, and recommended nest protection buffers for any special-status species. If standard buffers outlined in PG&E's NBMP cannot be followed or CDFW requests a larger buffer distance for any special-status species, the PG&E Biologist shall coordinate with CDFW on work that must occur including a description of the species, nest status, location, timing and duration of disturbance, and nature of the disturbance to determine the buffer distance. The buffer distance shall be clearly marked with high visibility flagging or other material and Project activities shall avoid the buffer zone. A CSLC-approved Biologist, in consultation with the PG&E Biologist, shall be present to monitor work occurring within proximity of active nests to assess the effects of work on nesting birds, determine and implement additional avoidance measures, or provide recommendations to postpone work. In the event work activities must be postponed due to nesting birds or if there is a lapse in construction of more than 7 days, another focused survey is required before Project activities can be reinitiated.

California Black Rail. California black rail are known to be present in the Project area, and there is suitable nesting habitat for this species within marsh vegetation on the east bank of the River and mouth of Suscol Creek. Vegetation removal, ground-clearing activities, and construction disturbance (noise and vibration) could impact nesting California black rail if construction occurs during the nesting season; however, suitable nesting habitat is adjacent to the NapaSan wastewater treatment facilities and black rail could be acclimated to routine disturbances and operations at the water treatment plant. Limited Project activities, such as excavations for pipeline tie-in, may occur within 300 feet of suitable black rail nesting habitat during Phase 1.

To reduce potential impacts to California black rail caused by construction disturbance, PG&E shall implement **MM BIO-3** to reduce impacts to less than significant levels by scheduling ground disturbing activities between August 15 and January 31, outside of California black rail nesting season, or requiring pre-construction surveys to identify and protect active nests, if present.

MM BIO-3: California Black Rail Nesting Season Avoidance or Pre-Construction Surveys. If Project activities are scheduled between February 1 and August 15, a qualified biologist, approved by CSLC, shall conduct a breeding season survey to identify nesting locations of California black rail. Surveys shall be conducted between February 1 and August 15, in accordance with CDFW protocols. If active California black rail nests are identified near the Project area, a nest protection buffer shall be recommended based on nest protection buffers outlined in PG&E's Nesting Bird Management Plan and site-specific conditions, and the following shall be required:

- Apply a nest protection buffer with a minimum distance of 300 to 600 feet from an active nest and postpone Project activities within the nest protection buffer until after August 15. The minimum nest protection buffer may be reduced in coordination with CDFW if existing site conditions and disturbance levels indicate a reduced buffer would still be effective. PG&E shall provide results of the coordination to CSLC.
- If it is not possible to postpone Project activities within the minimum nest protection buffer, construction activities may proceed with CDFW approval and monitoring by a CSLC qualified biologist. Additional measures such as visual screening may also be used to further reduce potential impacts to nesting black rail.

Salt Marsh Harvest Mouse. Pickleweed mat vegetation present within the Project area could provide habitat for SMHM. The salt marsh habitat to the east of the River is modeled habitat for the SMHM and is mapped as "Marsh Hot Zone" in the BAHCP. Installation of the tracer wires used for remote monitoring of the drill heads during Phase 1 will require removal of vegetation from three parallel alignments within salt marsh habitat in the East Work Area. Vegetation removal for tracer wire installation would occur above the extreme high tide line for this area of the Napa River. This will result in a temporary impact to approximately 0.30-acre of suitable SMHM habitat and PG&E BAHCP modeled habitat for SMHM. Once vegetation removal has been completed and the tracer wires are installed, there would be no additional Project activities or disturbances to that area of SMHM habitat during Phase 1. In addition, the installation of a pipeline marker on the east bank of the River at the replacement pipeline crossing location will result in an additional 0.01-acre of temporary impact to suitable SMHM habitat, of which 1.1 square-foot will be permanent due to the concrete footing necessary for installation of the pipeline marker. Installation of pipeline marker would be completed with crews on foot, using hand tools and would only involve minimal duration of disturbance to SMHM habitat.

To reduce potential impacts to SMHM from ground disturbance and vegetation removal, PG&E will implement **MM BIO-4** to reduce impacts to less than significant by requiring biological surveys and minimizing ground disturbance in salt marsh habitats. **MM BIO-4** is consistent with the PG&E BAHCP[10] and would reduce impacts to less than significant and ensure there would be no mortality or injury to SMHM.

> **MM BIO-4: Salt Marsh Harvest Mouse Avoidance and Surveys (PG&E Marsh Hot Zone 8)**. For activities that will result in ground disturbance in tidal marsh or coastal wetland habitat, including the removal of marsh vegetation, a qualified, CSLC-approved biologist shall flag access routes for crews when working in pickleweed (*Salicornia*) or smooth cordgrass (*Spartina alterniflora*) dominated habitats in order to minimize impacts on these species. Crews shall hand-carry equipment and use protection mats (landing pads, pallets) to minimize ground disturbance when working within pickleweed or smooth cordgrass. Small areas of healthy vegetation shall be cleared by hand prior to placement of protective mats. To avoid take of salt marsh harvest mouse, the CSLC-approved biologist shall assess the site to determine if: vegetation protection mats are appropriate, vegetation removal by hand is needed, and an onsite biological monitor is needed. Prior to placement of mats or removal of vegetation, the vegetation shall be disturbed (i.e., flushed) to force movement of salt marsh harvest mouse into adjacent tidal marsh areas. Immediately following flushing, the field crew shall place a mat or manually remove vegetation with nonmotorized tools (e.g., hoe, rake, trowel, or shovel).

Following the initial vegetation removal, ground disturbance and on-going excavation in salt marsh habitat could result in injury or mortality to SMHM. Implementation of **MM BIO-5** would ensure avoidance of incidental trapping, injury, or mortality to SMHM due to active ground disturbing activities by installing exclusionary fencing around the excavation areas in mapped salt marsh habitat and reduce the likelihood of SMHM returning to the area prior to further work

[10] The following language is also included as part of the BAHCP Hot Zone 8 AMM: "the use of helicopters is needed" and "Conduct work within 700 feet of wetlands suitable for the Ridgway's rail September 1–January 15." These components of the BAHCP AMM have been removed because they are not applicable to the Project. PG&E does not propose to use helicopters for this Project. The Ridgway's rail buffer and seasonal constraint component of the Hot Zone 8 AMM is not applicable to this Project because suitable habitat does not occur as demonstrated by lack of BAHCP modeled habitat for Ridgway's rail within the Project area, the results of the habitat assessment report, and the low likelihood of occurrence of this species. Please refer to Appendix F for details.

activities. The fencing would be regularly inspected to ensure it is functioning properly and fully mitigating the potential impacts to SMHM; therefore, impacts will be less than significant.

> **MM BIO-5: Salt Marsh Harvest Mouse Exclusion Fencing**. Prior to ground disturbance within salt marsh habitat, PG&E or its contractors shall install a mouse proof exclusion barrier which shall be placed around the edge of area of removed vegetation. The fence shall be made of a smooth material that does not allow the salt marsh harvest mouse to climb or pass through and the bottom shall be buried to a depth of at least 4 inches so that mice cannot crawl under the fence. The height of the fence should be at least 12 inches higher than the surrounding vegetation with a maximum heigh of 4 feet. A 2-foot-wide de-vegetated buffer shall be created along the habitat side of the fence. Installation of the fence shall be monitored by a CSLC-qualified biologist with experience with this species, who will check the fence alignment before vegetation clearing and fence installation to ensure no special-status species are present. A qualified biologist or biological monitor shall inspect the exclusion fencing daily to ensure there are no gaps, tears, or damage, and conduct maintenance as needed. Any mice found along or outside of the fence shall be closely monitored until they move away from the work area.

Western Pond Turtle. Western pond turtle could use the upland habitats for basking and foraging along the banks of the River, Suscol Creek, or the wetland channel in the West Work Area. If present, western pond turtle and their upland habitats could be temporarily disturbed or displaced by Project activities in these areas; however, no permanent impact or loss of habitat will occur as a result of the Project.

To reduce impacts to western pond turtle, PG&E shall implement **MM BIO-6** to ensure impacts are less than significant by pre-activity surveys and installing exclusion fencing. In addition, the implementation of **MM IO-7** will ensure all Project contractors are aware of the special-status species likely to occur and **MM IO-8** requires a biological monitor to be present when ground disturbing activities occur in sensitive habitats.

> **MM BIO-6: Western Pond Turtle Pre-Construction Surveys**. A qualified biologist, approved by CSLC, shall conduct pre-construction surveys for western pond turtle within 48 hours prior to ground disturbance to ensure that individuals are not present in the work area. Wildlife exclusion fencing, excavation covers, or escape ramps shall be used to prevent wildlife entrapment in excavation areas and shall be installed at the direction of the qualified biologist. A qualified biological monitor shall be

present to monitor Project activities during all in-water work and initial ground disturbance that has the potential to impact special-status species. Should western pond turtle be found within the work areas, a qualified biologist shall relocate the species outside of work area barriers.

MM BIO-7: Environmental Training Program. An environmental training program shall be developed and presented by a qualified biologist, approved by CSLC. All contractors and employees involved with the Project shall be required to attend the training program prior to work on the Project. At a minimum, the program shall cover special-status species that could occur on the site, their distribution, identification characteristics, sensitivity to human activities, legal protection, penalties for violation of state and federal laws, reporting requirements, and required Project avoidance, minimization, and mitigation measures.

MM BIO-8: Biological Monitoring. A qualified biological monitor, approved by CSLC staff, shall survey the onshore work area for special-status species or other wildlife that may be present no more than 24 hours prior to the commencement of Project activities. In addition, the biological monitor shall monitor Project activities within surface water and sensitive habitats, and other activities that have the potential to impact special-status species on a daily basis once Project activity begins. If at any time during Project activities any special-status wildlife species are observed within the Project area, work around the animal's immediate area shall be stopped or work shall be redirected to an area within the Project area that would not impact these species until the animal is relocated by a qualified biologist. Listed species would be allowed to leave of their own volition. Work would resume once the animal is clear of the work area. In the unlikely event a special-status species is injured or killed by Project-related activities, the biological monitor would stop work and notify CSLC and consult with the appropriate agencies to resolve the impact prior to re-starting work in the area.

Inadvertent Releases. Although Phase 1 equipment would be in the upland areas, the pilot borehole drilling and reaming have the potential for drilling fluids (predominantly bentonite clay) to migrate from the drill hole to surrounding fractured rock and sediments and to be discharged to surface water or wetland areas along the HDD alignment. This inadvertent release could impact water quality and aquatic species habitat through increased turbidity. **MM HAZ-2** (Hazards) requires an Inadvertent Release Contingency Plan that includes monitoring and recording the drilling fluid volumes, pressures, and flow rates, outlines response equipment that will be onsite to contain and clean up a drilling fluid release. The Inadvertent Release Contingency Plan also includes the

procedure to follow if a release occurs, including halting drilling operations, containing the fluid, documenting the drilling fluid release, and notifying stakeholders. With the implementation of this measure, the impact would be less than significant.

Phase 2

Effects on biological resources during Phase 2 include temporary impacts associated with excavations necessary for pigging and flushing of the existing pipeline, pumping of concrete slurry into sections of pipeline designated to be left in place, excavation and removal of segments of pipeline from the River, and removal of manifolds and vaults from both riverbanks. There would be no permanent impact to habitat as part of Phase 2 activities and previously existing above ground features would be removed and restored. Effects on special-status plant species and their habitat during Phase 2 primarily include temporary impacts associated with removal of Segment 2 from the riverbanks. Impacts to aquatic or semi-aquatic wildlife species could occur during excavation on the banks of the River or pipeline removal activities from the bed of the River.

Temporary direct impacts associated with the Project include riverine excavation, habitat disturbance, and presence of construction equipment. Indirect impacts include invasion of non-native plants into natural areas, noise disturbances, and temporary declines in air and water quality. Removal of pipelines from the riverbed would result in restored underwater habitat at these locations once the Project is complete.

All in-water work associated with Phase 2 would be conducted during the seasonal aquatic work window of August 1 to October 31, which is a combined species work window for avoidance and minimization of special-status fish species seasonal migrations and spawning periods (resident fishes and anadromous fishes).

Ground and Habitat Disturbance. Phase 2 of the Project may result in impacts to special-status raptors and nesting birds as well as plants, reptiles, and fish that may occur within the Project area. Disturbances would primarily occur during excavations to remove Segment 2 (pipelines, manifolds, and valve box) from the River and both banks and Segment 3 from terrestrial areas. Impacts would also include potential increased turbidity due to disturbance of riverbed sediments during in-water work.

Swainson's Hawk, Black Rail and Nesting Birds. Nesting Swainson's hawks, California black rail and other migratory birds have the potential to be impacted by ground disturbance and noise during Phase 2 activities. Implementation of **MM BIO-1, MM BIO-2** and **MM BIO-3** would reduce impacts to Swainson's hawk, California black rail and nesting birds to less than significant levels by scheduling vegetation removal and ground disturbance outside of nesting season or requiring pre-construction surveys to identify and protect active nests.

Salt Marsh Harvest Mouse. Salt marsh habitat on the west side of the River would be disturbed during Phase 2 for the removal of Segment 2 and equipment staging activities. Salt marsh habitat west of the River consists of relatively small and isolated patches of pickleweed mat and provides marginal salt marsh habitat for SMHM. Salt marsh habitat on the east side of the River would also be disturbed during the excavation for removal of Segment 2. The salt marsh habitat on the east side of the River is modeled habitat for the SMHM and is mapped as "Marsh Hot Zone" in the BAHCP.

To reduce potential impacts to SMHM from ground disturbance and vegetation removal, PG&E will implement **MM BIO-4** and **MM BIO-5** to reduce impacts to less than significant by requiring biological surveys, minimizing ground disturbance in salt marsh habitats, and installing exclusion fencing. **MM BIO-4** is consistent with the PG&E BAHCP and would reduce impacts to less than significant and ensure there would be no mortality or injury to SMHM.

Special Status Plants. There are recorded occurrences of Mason's lilaeopsis on both banks of the Napa River within the Project area (CDFW, 2022). Other special-status species, such as delta tule pea, Suisun marsh aster, delta mudwort, alkali milk-vetch, soft bird's-beak, and Lyngbye's sedge have not been previously documented in the Project area but also have the potential to occur in Project impact areas associated with Phases 1 and 2 of the Project. Special-status plant species surveys conducted during the appropriate blooming periods did not identify any special-status plant species within the Phase 1 Project area, therefore, no special-status plant species are expected to occur during Phase 1 construction. Special-status plant surveys identified a single Delta mudwort plant on the west bank of the Napa River within the Phase 2 Project area. Follow-up surveys conducted later in the season showed the individuals were no longer present due to bank erosion that had occurred at the recorded location (Padre 2022a, Padre 2022b). Temporary impact to suitable habitat associated with removal of Segment 2 is very small (0.013-acres total).

Because of the potential for special-status plants to recolonize the area, additional pre-construction surveys would be necessary to document current site conditions and identify new plants, if present, prior to construction.

All the special-status plant species known or potentially occurring within the Phase 2 Project area are California Rare Plant Rank (CRPR) species or species designated rare under the Native Plant Protection Act. There are no state or federally listed threatened or endangered plant species likely to occur in the Phase 2 Project area. As a public utility, PG&E is exempt from CESA permitting requirements for listed plants under Section 1913(b) of the California Fish and Game Code (Appendix A).

To reduce potential impacts to special-status plant species from excavations in Segment 2, PG&E shall implement **MM BIO-9** to reduce impacts to less than significant by conducting pre-construction rare plant surveys~~, and restoring the disturbed area with salvaged topsoil, if special status species are present~~ and restoring temporarily or permanently impacted special-status plant species to pre-construction conditions.

> **MM BIO-9: Pre-Construction Rare Plant Surveys and Restoration**. Prior to the start of construction, a qualified, CSLC-approved biologist shall conduct a pre-construction survey of the Project impact areas associated with Segment 2 within suitable habitat on the banks of the Napa River during the appropriate blooming windows to determine whether special-status plants are present and to document the current baseline conditions prior to the start of construction. If a special-status plant population is found, it shall be flagged and mapped by the biologist for avoidance during decommissioning activities, if feasible. If ~~temporary impacts~~ Project activities cannot ~~be avoided, a Site Restoration Plan~~ ensure full avoidance of the observed special status species, then PG&E shall consult with and obtain written approval from CDFW, which shall be submitted to CSLC ~~and approved~~ prior to disturbance of the riverbank area. ~~The Site Restoration plan, as described in **MM BIO-11**, shall~~ Required actions may include, ~~methods for salvaging~~ but are not limited to, topsoil salvage, transplanting, seed collection, stockpiling, ~~and~~ replacing topsoil on top of backfilled excavation areas, or habitat compensation and shall ensure restoration of temporarily or permanently impacted special-status plant species to pre-construction conditions. ~~The Site Restoration Plan shall establish monitoring and performance criteria for restoration areas to ensure restoration of temporary impact areas to pre-Project conditions.~~

observed at the 50 NTU level but declined by 15 percent in coho and 7 percent in cutthroat at 100 NTU. At 200 NTU, feeding declined precipitously by 92 percent in coho and 43 percent in cutthroat. Neither species fed at 400 NTU. Drift feeding was more adversely affected with increasing turbidities as salmonids rely on sight. Turbidity in the range of 50 to 100 NTU did not severely inhibit benthic feeding by juvenile salmonids, which was consistent with data reported by Gregory (1993) for juvenile Chinook salmon at turbidities of 35, 70, and 150 NTU in aquaria studies. Chronic turbidity levels of 25 to 50 NTU are physiologically damaging to salmonids and turbidity levels over 50 NTU result in decreased feeding in salmonids (Sigler et al. 1984).

In-water work would temporarily increase turbidity to the aquatic environment immediately surrounding the pipeline removal location. Increases in turbidity may result in physical effects that adversely affect habitat and temporary suspension of sediments, organic matter, or contaminated constituents contained within the sediments could be introduced into the water column. Large-scale increases of organic matter within a water column, usually associated with fine sediments, such as silts and clays, may increase dissolved nutrient concentrations, resulting in increased algal blooms and decreased dissolved oxygen when the suspended sediments are anoxic or have a high chemical oxygen demand. Increases in turbidity associated with Project-related in-water excavation would be expected to result in a turbidity plume in the area immediately surrounding the excavation, but typically settle out of the water column within a short distance downstream. Based on previous experience with similar projects, the increase in turbidity resulting from in-water excavation is expected to remain within the normal range for the highly variable turbidity levels that naturally occur in the River.

Special-status fish species may use the Project area primarily as a migration corridor to spawning habitat upstream of the Project area. The Project area does not support suitable spawning habitat. Because special-status fish species may use the Project area as a migration corridor and thus could be adversely impacted during migration, the Project activities would be scheduled outside of migration season when special-status fish are least likely to occur in the Project area (August 1 to October 31) to avoid both disturbance during spawning migration and overall species impacts that would contribute to diminished spawning success.

To reduce impacts to special status fish species, PG&E shall implement **MM BIO-7**, **MM BIO-8,** and **MM BIO-10** to ensure impacts are less than significant

by requiring environmental training for all Project personnel, having biological monitors present during all in-water work to monitor turbidity levels and recommend the use of a turbidity curtain, if determined to be necessary, to minimize the effects of increased turbidity to surrounding areas.

> **MM BIO-10: Turbidity Monitoring Plan**. PG&E shall implement a Turbidity Monitoring Plan during all in-water work to ensure that turbidity levels upstream and downstream of the Project area are compliant with regulatory requirements. A CSLC-approved environmental monitor shall be present during in-water work to monitor turbidity levels upstream and downstream of in-water work activities. If the results of the turbidity monitoring detect a Project-related increase in turbidity that exceeds the allowable thresholds for increased turbidity, as defined by regulatory permits, corrective measures shall be implemented. PG&E's corrective measures may include the use of a turbidity curtain or other sediment control devices, alteration to the timing and duration of in-water work and excavation, or minor modifications in methodology that result in a reduction of in-water turbidity levels.

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, U.S. Fish and Wildlife Service, State Lands Commission, or California Coastal Commission?

Less than Significant with Mitigation

Phase 1

CDFW Sensitive Natural Communities reported in the Project area include valley oak riparian forest and woodland, alkali heath marsh, pickleweed mats, and common three-square marsh. Proposed ground disturbance and vegetation removal associated with Phase 1 would occur in pickleweed mat and common three-square marsh Sensitive Natural Communities (Figure 3.4-1). Phase 1 activities will require ground disturbance of approximately 0.08-acres of pickleweed mat community on the west riverbank. In addition, installation of the tracer wires used for remote monitoring of the drill heads during Phase 1 will require removal of vegetation from three parallel alignments within 0.30 acres of pickleweed mat, and 0.05 acres of common three-square marsh habitat in the East Work Area. In addition, minimal vegetation trimming in the Suscol Creek riparian corridor may be necessary for equipment access depending on site conditions at the time of Project activities. No trees within the Project area are planned for removal during Phase 1. No ground disturbance will occur in alkali

activities will require ground disturbance of approximately 0.08-acres of pickleweed mat community on the west riverbank. In addition, installation of the tracer wires used for remote monitoring of the drill heads during Phase 1 will require removal of vegetation from three parallel alignments within 0.30 acres of pickleweed mat, and 0.05 acres of common three-square marsh habitat in the East Work Area. In addition, minimal vegetation trimming in the Suscol Creek riparian corridor may be necessary for equipment access depending on site conditions at the time of Project activities. No trees within the Project area are planned for removal during Phase 1. No ground disturbance will occur in alkali heath marsh, and no ground disturbance or tree removal will occur in valley oak riparian forest and woodland sensitive natural communities.

To reduce potential impacts to sensitive habitats from ground disturbance and vegetation removal, PG&E shall implement **MM BIO-11** to ensure temporary impacts are less than significant by requiring a Site Restoration Plan and returning the sensitive habitats to pre-project conditions. PG&E shall also implement **MM-BIO 4** which requires minimizing the disturbance areas to the extent feasible and excluding heavy equipment from SMHM pickleweed mat habitat. In addition, **MM HAZ-2** (Hazards) would reduce the likelihood of impacts from inadvertent releases of drilling fluids to riparian, marsh, or riverine habitats; therefore, impacts would be less than significant.

> **MM BIO-11: Site Restoration Plan**. A Site Restoration Plan shall be developed that shall include the replacement of vegetation removed for completion of the Project. The Site Restoration plan shall include methods for ~~salvaging~~ topsoil salvage, transplanting, seed collection, stockpiling, and replacing topsoil on top of backfilled excavation areas. The Site Restoration Plan shall establish monitoring and performance criteria for restoration areas to ensure restoration of temporary impact areas to pre-Project conditions. The Site Restoration Plan shall be submitted to the CDFW and CSLC for approval 30 days prior to the start of construction.

Phase 2

Pickleweed mat CDFW Sensitive Natural Community is present on the west and east riverbanks and would be temporarily disturbed by Project activities. Approximately 0.39 acres of pickleweed mat community (of which 0.12 acres was previously disturbed during Phase 1) on the west and east banks for the River will be disturbed during removal of Segment 2. Removal of Segment 2 on the west bank of the River would occur within a eucalyptus stand which has an understory of the pickleweed mat community described above. The eucalyptus

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 with Mitigation

Project activities that would temporarily occur in jurisdictional waters and wetlands include temporary disturbance and excavation for pipeline tie-ins during Phase 1 and pipeline removal during Phase 2. In addition, PG&E shall obtain all necessary permits for impacts to jurisdictional aquatic resources from the USACE, RWQCB, and CDFW prior to Project implementation and comply with agency permit conditions.

Phase 1

A total of 0.41-acre of temporary disturbance due to excavation would occur during Phase 1 in federally jurisdictional waters and wetlands and waters of the State. The installation of a pipeline marker on the east bank of the River at the replacement pipeline crossing location would result in an additional 0.01-acre of temporary impact to marsh habitat, of which 1.1 square-foot would be permanent due to the concrete footing necessary for installation of the pipeline marker. In addition, a total of 0.58-acre of disturbance from vegetation removal would occur during installation of the tracer wires needed to remotely monitor the drill head during the HDD; however, the tracer wire disturbance area would not involve any ground disturbance or other fill activities associated with excavation or construction workspace. Other temporary impacts including ground disturbance may occur to CDFW stream features from the installation of a temporary crossing over the excavated channel in the West Work Area and minor vegetation trimming or removal to accommodate equipment for the installation of the pipeline segment under Suscol Creek.

Impacts for Phase 1 are primarily temporary, and implementation of **MM BIO-11** would restore and revegetate the Project area after construction is complete to reduce impacts to less than significant. In addition, **MM HYDRO-1** (Hydrology and Water Quality) would require a Stormwater Pollution Prevention Plan (SWPPP) and standard measures to reduce erosion, turbidity, and sedimentation to waters and wetlands and implementation of **MM HAZ-1** (Hazards) and **MM HAZ-3** (Hazards) would reduce the potential for impacts resulting from spills of hazardous materials or inadvertent releases to the River to less than significant. With the implementation of these measures, the impacts would be less than significant.

Phase 2

A total of 0.14 acre of temporary disturbance would occur during Phase 2 in federally jurisdictional waters and wetlands and waters of the State, though some of the Phase 2 temporary disturbance overlaps with disturbance areas from Phase 1. Project activities that would occur in wetlands include pipeline excavation and removal, staging of equipment, and excavation for pigging and flushing activities.

Impacts for Phase 2 are temporary, and implementation of **MM BIO-11** would restore and revegetate the Project area after construction is complete. In addition, **MM HYDRO-1** (Hydrology and Water Quality) would require a SWPPP and standard measures to reduce erosion, turbidity, and sedimentation to waters and wetlands and implementation of **MM HAZ-1** (Hazards) would reduce the potential for impacts resulting from spills of hazardous materials to less than significant. With the implementation of these measures, the impacts would be less than significant.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less than Significant with Mitigation

Project activities including vegetation removal, ground disturbance, and in-water work will temporarily displace or deter wildlife from the Project area.

Phase 1

Impacts to potential daily or seasonal migrations may occur due to ground disturbance within sensitive riparian and aquatic habitats but would not result in permanent impacts or loss of habitat. **MM BIO-1** through **MM BIO-8** would be implemented to ensure special-status species and migratory species are not directly impacted, and habitat is avoided to the extent practicable.

Phase 2

Implementation of Phase 2 of the Project may result in short-term temporary impacts to the special-status and native fish migrations in the River. Decommissioning activities within the River would be conducted during the seasonal aquatic work window (August 1 to October 31) when anadromous and resident migratory fish are unlikely to be present. In addition, in-water work

activities would occupy a small portion of the pipeline removal crossing at any one time, such that fish would have free passage during Project activities. Due to the short-term nature of the Project and with implementation of **MM BIO-1** through **MM BIO-8**, as well as work within the agency-approved work window, impacts to fish migration would be less than significant.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (including essential fish habitat)?

Less than Significant with Mitigation

Napa County General Plan Policies seek to protect wetlands, riparian vegetation, oak woodlands, wildlife corridors, special-status species habitat, and other natural habitats. As discussed under questions a) through d), above, the Project has the potential to adversely impact terrestrial and aquatic sensitive habitats and to potentially impact other special-status terrestrial and aquatic wildlife. Implementation of **MM BIO-1** through **MM BIO-11** would provide Project planning, surveys, and monitoring to minimize and avoid Project impacts to wildlife and native habitats, which would also meet the intent of the relevant local government goals, objectives, and policies. With the implementation of these measures, the impact would be less than significant.

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?

Less than Significant with Mitigation

Project activities in Napa County would be covered by the BAHCP for HCP covered species (ICF 2017). The BAHCP shows modeled habitat for the SMHM. Implementation of **MM BIO-4**, **MM BIO-7,** and **MM BIO-8** would ensure Project avoidance of this species is consistent with the BAHCP and would reduce Project impacts to less than significant. In addition, consistent with implementation practices of the BAHCP, standard field protocols would be implemented, where practicable, for all PG&E Operations & Maintenance Projects because they are effective in reducing impacts to covered species. These measures are practicable where physically possible and not conflicting with other regulatory obligations or safety considerations. A list of field protocols can be found in Appendix F of the BACHP. Therefore, the Project would not conflict with this or any other HCPs.

3.4.4 Mitigation Summary

Implementation of the following MMs would reduce the potential for Project-related impacts to Biological Resources to less than significant:

MM BIO-1: Swainson's Hawk Nesting Season Avoidance or Pre-Construction Surveys
MM BIO-2: Nesting Bird Season Avoidance or Pre-Construction Surveys
MM BIO-3: California Black Rail Nesting Season Avoidance or Pre-Construction Surveys
MM BIO-4: Salt Marsh Harvest Mouse Avoidance and Surveys (PG&E Marsh Hot Zone 8)
MM BIO-5: Salt Marsh Harvest Mouse Exclusion Fencing
MM BIO-6: Western Pond Turtle Pre-Construction Surveys
MM BIO-7: Environmental Training Program
MM BIO-8: Biological Monitoring
MM BIO-9: Pre-Construction Rare Plant Surveys and Restoration
MM BIO-10: Turbidity Monitoring Plan
MM BIO-11: Site Restoration Plan
MM HAZ-1: Project Work and Safety Plan
MM HAZ-3: Inadvertent Release Contingency Plan
MM HYDRO-1: Stormwater Pollution Prevention Plan

3.5 CULTURAL RESOURCES

CULTURAL RESOURCES- Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

3.5.1 Environmental Setting

This section provides background information and an archaeological context for the cultural resources identified during literature review and surveys of the Project area. The following discussion is a summary from the Cultural Resources Inventory, Evaluation, and Impact Analysis prepared for the Project by Pacific Legacy, Inc. (DiMaggio et al. 2022). The ethnographic context related to the Native American society and culture in the Project vicinity is discussed in Section 3.6, Cultural Resources – Tribal.

3.5.1.1 Precontact Context

There is no single timeline that encompasses the entire precontact record of the North Coast Ranges, a mountain range that runs parallel to the Pacific Coast from the North San Francisco Bay Area to coastal Del Norte County. Fredrickson (1973, 1974) proposed a model consisting of six periods based on a general evolutionary sequence that included the PaleoIndian (11,950 to 7,950 calibrated Before Present [cal BP]), Lower Archaic (7,950 to 4,950 cal BP), Middle Archaic (4,950 to 2,450 cal BP), Upper Archaic (2,450 to 1,050 cal BP), and Emergent periods (1,050 to 150 cal BP). The following describes each of the six periods as they relate to the Project vicinity.

PaleoIndian Period (11,950 to 7,950 cal BP)

The PaleoIndian Period remains little understood; however, Fredrickson (1974) hypothesized that the period was characterized by habitation sites near large bodies of water with a probable hunting emphasis and no evidence of milling technology. The only site in the North Coast Ranges that dates to this period is the Borax Lake site (CA-LAK-36), which produced 15 fluted projectile points characteristic of the Western Clovis Tradition. The PaleoIndian Period is also associated with the Post Pattern, which is characterized by Borax Lake style fluted projectile points, flaked crescent points, and single-shoulder hafted implements (Fredrickson 1973; Meighan and Haynes 1970).

Lower Archaic Period (7,950 to 4,950 cal BP)

During the Lower Archaic Period, the ancient lakes that had provided a subsistence base during the PaleoIndian Period began to dry up as a result of climate change. The widespread appearance of milling slabs indicates an increased reliance on plant foods and less emphasis on hunting. Most artifacts produced during this period were manufactured of local materials and trade was limited (DiMaggio et al. 2022). In the North Coast Ranges, the Lower Archaic Period is associated with the Borax Lake Pattern, which is characterized by milling slabs and handstones, squarestemmed projectile points, large bladelet flakes, and unifacial flaked stone tools (White 2005). Components of the Borax Lake Pattern during the Lower Archaic Period have been identified at the Hultman site (CA-NAP-131) in Napa County and two excavated sites (CA-COL-76 and CA-COL-160) in adjacent Colusa County (Fredrickson 1973; White 2009).

Middle Archaic Period (4,950 to 2,450 cal BP)

The Middle Archaic Period is characterized by the introduction of the mortar and pestle, increased sedentism, and population growth and expansion. In the North Coast Ranges, the Middle Archaic Period is associated with the Berkeley Pattern and the Mendocino Pattern (DiMaggio et al. 2022). The Berkeley Pattern is distinguished by a predominance of mortars and pestles, ulna awls and flakers, shouldered bifaces and bipoints (a tool that is pointed at both ends), and Excelsior style and leaf-shaped projectiles points. Good examples of the Berkeley Pattern during the Middle Archaic Period have been identified at the Goddard site (CA-NAP-1) near Oakville and the Kolb site (CA-NAP-32) near Rutherford (Heizer and Squier 1953). The Mendocino Pattern is characterized by

leaf-shaped, concave-base projectile points, milling slabs, a lack of beads, and the prevalence of obsidian rather than chert artifacts (DiMaggio et al. 2022).

Upper Archaic Period (2,450 to 1,050 cal BP)

The general trend towards increasing population growth and the expansion of settlement continued into the Upper Archaic Period. According to Fredrickson (1974), this was a period of increasing sociopolitical complexity, social status based on wealth, the emergence of group-oriented religious activities, and more complex trade systems. The Berkeley Pattern and Mendocino Pattern show significant continuity from the Middle Archaic into the Upper Archaic Period. While the use of mortars, pestles, Excelsior and leaf-shaped projectile points continued, new components include a highly developed bone tool industry, increased numbers of *Olivella* beads and *Haliotis rufescens* (red abalone) ornaments, dart-sized, non-stemmed projectile points, house floors, cairns, and graves (DiMaggio et al. 2022).

Emergent Period (1,050 to 150 cal BP)

During the Emergent Period, bow and arrow technology was introduced and quickly replaced the dart and atlatl. Territorial boundaries became well established, and regularized trade and exchange networks flourished. The continued growth and elaboration of the exchange system led to an increased development of specialization (DiMaggio et al. 2022). The Emergent Period is associated with the Augustine Pattern, which was distinguished by the use of small, serrated projectile points, well-shaped mortars and pestles, hopper mortars, bone awls, tubular tobacco pipes, and an increase in beads and ornaments made from shell, stone, and bone. Components of the Augustine Pattern have been recorded at CA-NAP-129. Additionally, the culture exemplified by the Augustine Pattern is quite similar to that of the Wappo, who have historical ties to the Project site.

3.5.1.2 Regional Historic Context

European contact with indigenous people in California occurred as early as 1542 with the voyage of Juan Rodriguez Cabrillo. European colonization of the San Francisco Bay did not begin until the mid-1700s, however, with the eighteenth-century expansion of the Spanish frontiers northward from Mexico into Alta California. One of the first colonizing parties in northern Alta California, under José Joaquín Moraga and Padre Francisco Palou, arrived in San Francisco in 1776 and founded the Presidio of San Francisco and Misión San

Francisco de Asís (also known as Mission Dolores) (Hoover et al. 1990). From 1776 to 1817, Misión San Francisco de Asís was the northern anchor in the mission chain, and indigenous people from throughout the Bay Area were brought to the mission. Baptismal records have indicated that the native inhabitants of the lower Napa Valley were brought to the Misión San Francisco de Asís and to Misión San José de Guadalupe in great numbers (Jackson 1978).

Mexico gained independence from Spain in 1821, and the Presidio of San Francisco became a Mexican frontier outpost. The newly established Mexican government attempted to more aggressively colonize their northern frontier by granting large tracts of land to Californio citizens as a reward for loyal service. These ranchos were meant to stake Mexico's claim to the area and halt the possibility of further Russian incursion into the territory (Silliman 2004).

Francisco Castro, accompanied by José Sanchez, Father José Altamira, and 17 soldiers, led the first recorded exploration of Napa County in 1823 to locate the ideal site for a new mission. Sonoma was selected as the new mission site, while Petaluma and Napa were selected as extended cattle ranch areas that would supply the needs of the mission (Hoover et al. 1990). Misión San Francisco de Solano, approximately 10 miles west of the Project site, represented the northern boundary of the Mexican sphere of influence, and it was also the last mission to be founded in Alta California under the secular Mexican government (Hoover et al. 1990).

In 1833, General Mariano Vallejo, Commander of the Presidio of San Francisco, was sent north of the San Francisco Bay by Governor José Figueroa to establish settlements in the fertile valleys. Also in 1833, the Bonaventura Brigade, an expedition headed by John Work for the Hudson's Bay Company, crossed the River on the way to the Sonoma coast and camped near present-day Napa to allow some crew members to convalesce (Maloney and Work 1944). Vallejo was granted Rancho Petaluma in 1834 and received the right to grant other ranchos in the North Bay in 1835. The first grant within the Napa Valley was Rancho Caymus, which was awarded to George Yount in 1836 (Jackson 1978). Yount, a native to North Carolina, became the first American to settle permanently in the Napa Valley.

Within the next 10 years, the Napa Valley was divided and parceled into numerous such ranchos. Specifically, portions of the eastern half of the Project area is within the southern boundary of the former Rancho Tulucay, an 8,866-acre parcel granted to Cayetano Juarez in 1841, and the western half of the Project area is within the former Rancho Rincon de los Carneros, a 2,588-acre

parcel granted to Nicholas Higuera around 1836. The native population formed the majority of the labor force on these newly granted landholdings (DiMaggio et al. 2022).

The conscription of native labor came with a price, however. The Wappo and allied bands of Pomo fought several campaigns against Mexican soldiers under Vallejo's command (Greengo and Shutler 1953). Known as the Satiyomi Campaigns, the Wappo waged successful battles against Vallejo and his Patwin allies in 1834, 1836, and 1842. Although the Spanish and Mexicans in Alta California rarely made treaties with Native Californians, Vallejo signed two separate treaties with the Wappo in 1836—a remarkable testament to the Wappo resistance. Despite their efforts, however, conflict and disease ultimately reduced the Wappo population from approximately 8,000 in 1836 to just 500 in 1850. This was due in large to the introduction of diseases to which the Wappo had no resistance (DiMaggio et al. 2022).

The Wappo that did survive conflict and disease ultimately found ways to integrate into new capitalist economies introduced by the Mexican settlers by finding work on ranchos and by taking on other forms of menial labor (Phillips 1993; Stillman 2004). At the same time, the Wappo, like many other Native Californian tribes, found ways to preserve their heritage while actively transforming the discourse regarding Native Californian land allotments and colonial settlement (Schneider 2010).

In the 1840s, relations between Mexico and the United States became strained as the United States. expanded its sphere of influence westward to the Pacific Ocean. Those tensions erupted in the Mexican-American War, which lasted between 1846 and 1848. The signing of the Treaty of Guadalupe Hidalgo brought an end to the war and brought Alta California under the control of the United States government (Hoover et al. 1990). Shortly thereafter, gold was discovered in California, sparking a huge inward migration of miners and settlers. With its rapid population growth and apparent wealth, California quickly bypassed the territorial stage and became a State in 1850 (DiMaggio et al. 2022).

Like Yount before him, Nathan Coombs acquired considerable landholdings in the Napa Valley. Coombs first came to California in 1843 where he purchased a small part of Rancho Tulucay on the east side of the River. In 1847, he purchased 325 acres within Rancho Napa from Salvador Vallejo in addition to 80 acres within Rancho Entre Napa from Nichols Higuera. It was on the 80-acre landholding that Coombs laid out and founded the city of Napa in 1848. When

statehood was granted to California in 1850, Napa became one of the original 27 counties and "Napa City" (later shortened to Napa) became the county seat (DiMaggio et al. 2022).

Between 1850 and 1860, the population of Napa County grew from 400 to approximately 5,000. While the Gold Rush initially drew miners and settlers to the region, many stayed on to pursue their fortunes in agriculture, ranching, timber, and mineral resources. The advent of steamers, stagecoaches, and a rail line also greatly facilitated travel through and settlement of the Napa Valley. Several resorts were established in the Napa Valley during this period of growth, particularly at Calistoga. In 1852, the first mineral springs resort in California was opened at White Sulphur Springs, approximately 4 miles to the west of St. Helena (Hoover et al. 1990). These resorts contributed greatly to the local economy.

Even more significant to the growing Napa County and Napa Valley economy was agriculture. Wheat, barley, and grapes became the central focus of production, though cattle and sheep raising remained an important component of the regional economy into the twentieth century. Many of the original farmers in the Napa Valley had established small vineyards with cuttings supplied by the missions in Sonoma and San Rafael. As early as 1862, the State Legislature sent Agoston Haraszthy to Europe to bring back 100,000 cuttings of 300 different varieties of grapes. These were to be divided between the wine growers of the State (Rolle 1969). By 1870, Napa County had over one million vines planted (Starr 1973). By 1880, a large northern Italian population had settled in the Napa and Sonoma valleys, bringing with them a vast knowledge of wine making. The wine industry quickly propagated in Napa County until Prohibition in 1920 temporarily put an end to production. The industry quickly recovered, however, when Prohibition was repealed in 1933 (Rolle 1969).

3.5.1.3 Early Development of the Project Vicinity

A majority of the eastern half of the Project area would have been located within the former Rancho Suscol, an 84,000-acre Mexican land grant given by Governor Manual Micheltorena to General Mariano Guadelupe Vallejo in 1843. As required by the California Land Act of 1851, Vallejo filed a claim for the rancho in 1853. That claim was disallowed by United States courts, but land purchases already concluded under the claim were allowed after the payment of additional sums (Gardner 1977).

Vallejo laid out but never developed a townsite around Suscol. As payment for the wood that went into building California's first State House, Vallejo transferred

a portion of his lands, including the townsite, to William Thompson. Simpson Thompson, William's brother, purchased an additional 300 acres adjoining the original townsite area in 1852 and became successful as a fruit grower (Gardner 1977).

The development of Suscol was based on its value as a transportation corridor to the Bay Area, a situation that persisted from precontact times. Stagecoaches moved regularly along the route, which is now State Route 29. The nearby riverbank (adjacent to the newly constructed Highway 12 bridge) was the only convenient low tide landing point on the River. In 1852, a ferry was established at this point, facilitating east-west travel. The area at the junction of the "Soscol Ferry Road" and the main north-south artery became an ideal location for a roadhouse, which was soon established by Elijah True in 1855. By 1867, at least four other businesses had been established around Soscol House. Additionally, across the River, the neighboring Stanly Ranch also became a prominent agricultural assemblage during the period, with grapes, crops, and livestock easily shipped from the west bank of the River. The Thompsons built a wharf near the ferry crossing in 1858. In 1865, the Napa Valley Railroad established its southern terminus near the ferry crossing to connect with the stage lines (Gardner 1977).

Things changed rapidly in 1869 when the railroad was extended to Napa Junction, establishing a through route by rail from the Napa Valley to the bay. Suscol's business dropped to a single stage, and from then on Suscol declined quite rapidly. As early as 1905, with the establishment of an electric railroad from Lake County to Benicia, Suscol was listed only as a flag stop. Although Soscol House remained in use as a tavern, restaurant, or both until 1977, the community of Suscol was essentially finished before the turn of the century (Gardner 1977).

3.5.1.4 Cultural Resources Surveys

Archaeologists conducted intensive pedestrian surveys of the Project area including all proposed excavation, staging, and laydown areas and access routes on April 1, 2020, February 8, 2022, and December 15, 2022. The field surveys were conducted by walking parallel transects spaced at 33 to 49 feet, except in two areas with extremely dense vegetation that were examined by walking parallel transects spaced at 98 feet. All exposed soils, including the edges of paved areas, rodent spoils, and other areas of recent disturbance, were examined for evidence of precontact or historic-period cultural resources, including any evidence of buried cultural deposits. Ground visibility varied from 0

to 90 percent with dense vegetation, leaf litter, gravel, and asphalt accounting for areas of lesser visibility (DiMaggio et al. 2022).

Architectural historians completed a built environment field survey on January 13, May 22, and July 15, 2021. All built environment resources in the Project area were documented and subject to photographic and written documentation that recorded physical characteristics, character-defining features, contextual relationships, and any notable alterations, including removal of previously documented resources. For documented resources that are linear/landscape resources that extend far out of the Project area, the inventory only included segment documentation within the Project area to identify overall physical characteristics and character-defining features. The built environment documentation included an updated evaluation of built environment resources in the Project area, as appropriate (DiMaggio et al. 2022).

Archaeologists completed an Extended Phase I Geoarchaeological Study of the Project area on April 21 to April 23, 2021. The study consisted of thirteen exploratory trenches on either side of Soscol Creek, six continuous core samples, and one shovel test unit in areas with the greatest buried site potential. The nature and extent of deposits exposed was documented in the field, and particular attention was given to those that contained buried soils or archaeological remains. The deposits in each testing area were carefully examined to identify the nature of subsurface deposits and determine whether archaeological materials are present. The geoarchaeological study was conducted to determine whether potentially buried precontact archaeological resources were present where significant earth disturbances are required along segments of the new pipeline alignment within the Project area (Meyer 2021).

The geoarchaeological study yielded a sequence of naturally stratified alluvial deposits that provide information about the nature and timing of local landscape changes, and archaeological sensitivity of the Project area. No buried archaeological deposits were identified in the Project area during the geoarchaeological study. Archaeologists used the geoarchaeological study to prepare a buried archaeological site sensitivity analysis to assess the likelihood of the presence of and potential for encountering subsurface cultural resource deposits during Project construction. The modeling results indicate there is a high potential for buried sites to occur along segments of the new alignment, near the Napa River and Soscol Creek channels (Meyer 2021).

3.5.1.5 Records Search Results

Personnel from the Northwest Information Center (NWIC) completed an archival and records search of the California Historical Resources Information System for the Project area and a surrounding 0.25-mile radius in February 2020. The records search revealed that four cultural resources have been previously recorded within the Project area or are immediately adjacent (DiMaggio et al. 2022). These resources are further listed and described in Table 3.5-1.

No additional resources were identified in the Project area during the pedestrian archaeological survey and subsurface archaeological testing efforts; however, one newly identified multi-component site, given the field designation of "Homestead Site," was identified adjacent to the Project area. Also, the boundaries of the multi-component Somky Property/Thompson's Soscol Ranch (P-28-000001) were refined, placing that resource immediately outside the Project area (DiMaggio et al. 2022).

Table 3.5-1. Previously Recorded Cultural Resources within and Immediately Adjacent to the Project Area

Primary Site Number	Trinomial Site Number	Description	Location
P-28-000001	CA-NAP-860/H	Somky Property/Thompson's Soscol Ranch with Precontact Lithic Scatter	Adjacent to Project Area
P-28-000966	CA-NAP-1113H	Napa Valley/Southern Pacific Railroad	Inside Project Area
P-28-001186	-	Stanly Ranch Complex with its associated bridges, road, culverts, and eucalyptus trees	Inside Project Area
P-28-0011659	-	The Napa Sanitation District Influent Pump Station	Adjacent to Project Area
-	-	Homestead Site (precontact and historic-era artifact scatter)	Adjacent to Project Area

Note: "-" means no data are available.

The P-28-000001 site is immediately adjacent to the Project area and contains built environment and archaeological components. Since the previous evaluation of the Somky House, the house was removed in 2006. Thompson's Soscol Ranch, which consists of the remains of gardens, a farmstead, and fruit orchard, was previously evaluated and determined ineligible for listing on the California Register of Historical Resources (CRHR). The current survey concurs with the previous evaluation that the extant built environment components of Thompson's Soscol Ranch are ineligible for listing on the CRHR and NRHP. Additionally, because the Somky House has been removed from the site, there are no built environment resources associated with this site that may be affected by the Project.

The archaeological component of P-28-000001 contains a moderately dense scatter of precontact obsidian lithic debitage and tool fragments as well as historic-era artifacts. Extended Phase I Testing in 2005 yielded cultural materials up to five feet below the ground surface. The archaeological component of P-28-000001 has not been formally evaluated; thus, it is considered a historical resource for the purpose of CEQA.

Previous inventories of the Napa Valley Railroad (P-28-000966) have determined the resource ineligible for listing in the NRHP due to a significant loss of integrity, rendering the railroad incapable of conveying its historic significance. A portion of the Napa Valley Railroad runs through the Project area on top of the boring alignment for the pipeline. The previous finding of ineligibility was applied during the current survey; thus, the resource is not considered a historical resource for the purpose of CEQA. Nevertheless, the resource crosses over the Project area atop where the pipeline would be bored under the river.

All Project work and staging areas on the west side of the River are in the Stanly Ranch (P-28-001186). This resource was previously evaluated as eligible for listing in the CRHR and NRHP. As part of this Project, this resource and its components were subject to built environment inventory and updated evaluation efforts to establish historical resources/historic property eligibility status. The current built environment field survey concurs with the previous findings regarding the eligibility of the resource and identified two additional landscape features that appear to contribute to the significance of the property: an earthen levee along the west bank of the Napa River and an associated riverbank row of eucalyptus trees (Kraushaar, Talcott, and Allen 2021). Pending State Historic Preservation Officer (SHPO) concurrence, this resource is considered a historic property; thus, it is considered a historical resource for the purpose of CEQA.

Project activities do not have the potential to undermine any character-defining features or cause a substantial adverse change or adverse effect to Stanly Ranch. The resource and its associated features would either be avoided or would not be affected by the proposed Project. Stanly Lane itself is within the Project area and would be used for Project access; however, the road is paved and would not be subject to modification as a result of Project implementation.

The Napa Sanitation District Influent Pump Station (P-28-001659) was previously evaluated for the purposes of CEQA and found ineligible for listing in the CRHR (Ford et al. 2012). The current survey found that since the previous evaluation the historic period-built environment resource adjacent to the Project area has been demolished and is no longer extant, with a new pump station at the location. As such, this resource is not considered a historical resource under CEQA.

The newly identified Homestead Site contains a central concentration of historic-era archaeological materials and precontact materials that is surrounded by a larger diffuse scatter of historic-era and precontact materials. During the current survey, the resource was recorded but not formally evaluated; thus, it is considered a historic resource for CEQA.

A search of the CSLC's Shipwrecks Database and consultation with the CSLC staff did not locate any shipwrecks within the Project area. Except as verified by actual surveys, CSLC data on shipwrecks was taken from books, old newspapers, and other contemporary accounts that do not contain precise locations. The CSLC's Shipwrecks database reflects information from many sources and generally does not reflect actual fieldwork. Additionally, not all shipwrecks are listed in the CSLC's Shipwrecks Database and their listed locations may be inaccurate, as ships were often salvaged or re-floated.

3.5.2 Regulatory Setting

Federal and state laws and regulations pertaining to cultural resources and relevant to the Project are identified in Appendix A. Local policies applicable to the Project with respect to cultural resources are identified in Appendix B.

3.5.3 Impact Analysis

Project components would occur within Stanly Ranch, which is an area that qualifies as a historical resource under CEQA. In addition, there are two historical resources adjacent to the Project site which are both considered eligible for listing on the CRHR as historical resources for the purposes of CEQA.

a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?

Less than Significant with Mitigation

All Project work and staging areas on the west side of the River are located entirely within the Stanly Ranch (P-28-001186) and would impact approximately 3,791 square feet of the resource. The Stanly Ranch is a nineteenth century ranch and winery that is a significant part of Napa County history. This resource was previously evaluated and recommended as eligible for listing in the CRHR and NRHP; thus, it qualifies as a historical resource under CEQA. The current built environment field survey identified two additional landscape features that appear to contribute to the significance of the property: an earthen levee along the west bank of the River and an associated riverbank row of eucalyptus trees (Kraushaar, Talcott, and Allen 2021).

The cultural resources surveys and records search also identified two historical resources adjacent to the Project area: the archaeological component of P-28-000001 and the newly identified Homestead Site. The archaeological component of P-28-000001 contains a moderately dense scatter of precontact obsidian lithic debitage and tool fragments as well as historic-era artifacts. The newly identified Homestead Site contains a central concentration of historic-era archaeological materials and precontact materials that is surrounded by a larger diffuse scatter of historic-era and precontact materials. Neither resource has been formally evaluated; thus, both are considered eligible for listing on the CRHR as historical resources for the purpose of CEQA.

The remaining resources identified within the Project area have been previously evaluated and recommended not eligible for listing on the CRHR; thus, they do not qualify as historical resources under CEQA.

Phase 1 activities would install a new pipeline using HDD techniques underneath the Stanly Ranch at a maximum depth of approximately 60 feet below the current ground surface. Once Phase 1 activities are complete, Phase 2 activities would excavate and either abandon in place or remove pipeline segments within the existing pipeline corridor. However, the topography of the Stanly Ranch within the Project area has already been previously impacted by ground disturbance related to the existing pipeline, levee construction and maintenance, and agriculture. All Phase 1 materials, except for the pipeline markers, would be buried, and all Phase 2 materials would be removed or remain underground. Following completion of Project activities, the levee, tree

line, and road would continue to maintain their original contours, configurations, and linear vegetative forms; the levee form or composition or the tree line would not be altered.

With regard to the archaeological component of P-28-000001 and the newly identified Homestead Site, no excavation is proposed within either historical resource, and staging areas have been designed to avoid resource boundaries. However, due to the proximity of each resource to the Project area to each resource, each would be delineated as an exclusion zone.

No change in setting would occur, as the Project work areas would be returned to their pre-Project conditions. Finally, the Project would not result in the sale or neglect of a historic property. To reduce potential impacts from ground disturbance to cultural resources, PG&E shall implement **MM CUL-1/TCR-1** and **MM CUL-2** to minimize destruction or damage to these resources and require spot monitoring of the adjacent areas to ensure no undetected resources are impacted. With the implementation of these measures, the impacts would be less than significant.

> **MM CUL-1/TCR-1: Sensitive Resource Area Exclusion Zone**. Prior to Project implementation and for the duration of both Project phases, PG&E shall establish Exclusion Zones by installing a barrier in the Project area boundary cordoning two Sensitive Resource Areas: 1) P-28-000001 and 2) the Homestead Site. Construction equipment and personnel are not permitted to enter these Exclusion Zones. The Exclusion Zone shall be installed under the direction of the PG&E Cultural Resource Specialist (CRS), or their designated on-site archaeologist. All segments of the protective barrier will be removed and reinstalled between Project phases.
>
> **MM CUL-2: Cultural Resources Monitoring.** The PG&E CRS, or their designated on-site archaeologist, shall provide spot monitoring during ground disturbing Project activities.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

Less than Significant with Mitigation

The records search revealed that four cultural resources have been previously recorded within, or immediately adjacent to, the Project area (DiMaggio et al. 2022). No additional resources were identified in the Project area during the pedestrian archaeological survey and subsurface archaeological testing efforts;

however, one newly identified multi-component site, given the field designation of "Homestead Site," was identified adjacent to the Project area. Also, the boundaries of the multi-component Somky Property/Thompson's Soscol Ranch (P-28-000001) were refined, placing that resource immediately outside the Project area (DiMaggio et al. 2022).

In addition, based on the analysis of subsurface archaeological materials, the Project area on both sides of the River have a moderate to high potential for buried archaeological resources (Meyer 2021).

To reduce potential impacts from ground disturbance to unknown buried cultural and archeological materials, PG&E will implement **MM CUL-3/TCR-3** and **MM CUL-4/TCR-4** to ensure that in the event of an accidental discovery, further disturbance would stop until the resource had been appropriately assessed and treated, if necessary. With the implementation of these measures, the impacts would be less than significant.

> **MM CUL-3/TCR-3: Cultural and Tribal Cultural Resources Awareness Training.** Prior to Project implementation, a consultant and construction-worker cultural and tribal cultural resources awareness training program for all personnel involved in Project implementation shall be conducted by the Project archaeologist and Tribal Representative(s) and must be provided to all Project employees, contractors, subcontractors, and other workers prior to their involvement in any ground-disturbing activities, with subsequent training sessions to accommodate new personnel becoming involved in the Project. Evidence of compliance with this mitigation measure shall be documented within pre-Project compliance documentation materials and submitted to CSLC prior to Phase 1 and Phase 2 mobilizations.
>
> The purpose of the training will be to educate on-site construction personnel as to the sensitivity for resources in the Project area, including understanding the difference between non-Native archaeological resources (cultural resources) and resources that are Native American in nature (tribal cultural resources). The training shall also cover the possibility of exposing cultural or tribal cultural resources, guidance on recognizing such resources, and direction on procedures if a potential resource is encountered. PG&E or the on-site archaeologist completing the training will instruct all Project personnel that touching, collecting, or removing cultural materials from the property is strictly prohibited and is illegal. The program will also underscore the requirement for confidentiality and culturally appropriate treatment of any find of significance including what

may be Native American in origin, consistent with Native American tribal values and customs.

The training shall include, at a minimum:

- A brief overview of the cultural sensitivity of the Project site and surrounding area;
- What resources could potentially be identified during ground disturbance;
- The protocols that apply in the event unanticipated cultural or tribal cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated;
- Consequences in the event of noncompliance; and,
- Safety procedures when working with monitors.

MM CUL-4/TCR-4: Discovery of Previously Unknown Cultural or Tribal Cultural Resources. If any potential tribal cultural resources, archaeological resources, other cultural resources are discovered by the designated on-site archaeologist, or other Project personnel during construction activities, 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. Work stoppage shall remain in place until the PG&E Cultural Resource Specialist (CRS) and the designated on-site archaeologist have jointly determined the nature of the discovery, and the significance of the discovery has been determined by the on-site archaeologist and PG&E CRS and the designated tribal representative who will be invited to the to the project area if finds are Native American in origin. Said Tribal Representative shall be asked to continue to monitor should the discovery be Native American in origin and significant (for tribal cultural resources). Resources that are Native American on origin shall neither be photographed nor be subjected to any studies beyond such inspection as may be necessary to determine the nature and significance of the discovery. If the discovery is confirmed as a significant cultural resource or a significant tribal cultural resource, an Exclusion Zone will be established using fencing or other suitable material to protect the discovery during subsequent investigation. No ground-disturbing activities will be permitted within the Exclusion Zone until the area has been cleared for construction by the PG&E CRS, the designated on-site archeologist, and if appropriate, the Tribal Representative. The exact location of the resources within the Exclusion Zone must be kept confidential and measures shall be taken to secure the area from site disturbance and potential vandalism.

Impacts to previously unknown significant cultural and tribal cultural resources shall be avoided through preservation in place, if feasible. If the designated onsite archaeologist or Tribal Representative/Monitor, as appropriate, determines that damaging effects on the cultural or tribal cultural resource can be avoided in place, then work in the area may resume provided the area of the discovery remains clearly marked for no access/disturbance. Title to all archaeological sites, historic or cultural resources, and tribal cultural resources on or in the tide and submerged lands of California is vested in the State and under CSLC jurisdiction. The final disposition of archaeological, historical, and tribal cultural resources recovered on State lands under CSLC jurisdiction must be approved by CSLC.

If cultural resources are encountered during construction activities, PG&E and/or its designated on-site archaeologist shall halt work in the immediate vicinity of the find. The find shall be evaluated by a qualified archaeologist in tandem with the Tribal Representative, if appropriate and if the find is Native American in origin, before construction activity may resume. If the qualified archaeologist and tribal representative determines that the find may be significant and if avoidance of the find is determined to be infeasible, the archaeologist shall notify the lead agencies and shall implement data recovery and treatment/mitigation of unanticipated discoveries in consultation with the lead agency. PG&E shall be responsible for the resultant mitigation costs as well as associated curation costs if reburial on site is not acceptable to the landowner. If the find is determined to be insignificant no management measures are required and construction may commence once given approval by the on-site archaeologist. All significant findings will be documented in a summary report that will be provided to pertinent consulting parties within a year of project completion. Said report shall be submitted to the California Historic Resources Inventory System.

c) Disturb any human remains, including those interred outside of dedicated cemeteries?

Less than Significant with Mitigation

The Project is not expected to disturb human remains. Though unlikely, unmarked burials could be unearthed during subsurface construction activities and consequently the Project could disturb human remains, including those interred outside formal cemeteries.

To avoid impacts to unanticipated human remains, PG&E will implement **MM CUL-5/TCR-5** to ensure that, in the event of accidental discovery, further

disturbance would halt until the human remains had been appropriately assessed and treatment, if necessary, approved. With the implementation of this measure, the impact would be less than significant.

> **MM CUL-5/TCR-5: Unanticipated Discovery of Human Remains.** If human remains or associated grave goods (e.g., non-human funerary objects, artifacts, animals, ash, or other remnants of burning ceremonies) are encountered, all ground disturbing activities shall halt within 100 feet of the discovery or other agreed upon distance based on the project area and nature of the find; the remains will be treated with respect and dignity and in keeping with all applicable laws including California Health and Safety Code section 7050.5 and California Public Resources Code section 5097.98. If representatives are not already on site when a discovery is made, the Project Archaeologist or their designated onsite archeologist, Tribal Representative(s), PG&E, and CSLC shall be notified immediately. The Project archaeologist shall contact the County Coroner within 24 hours. If human remains are determined by the County Coroner to be of Native American origin, the County Coroner shall notify the Native American Heritage Commission within 24 hours of this determination, and the Native American Heritage Commission shall identify a Most Likely Descendent. No work is to proceed in the discovery area until consultation is complete and procedures to avoid or recover the remains have been implemented. Unless otherwise required by law, the site of any reburial of Native American human remains shall not be disclosed and will not be governed by public disclosure requirements of the California Public Records Act, Cal. Govt. Code § 6250 et seq.
>
> If human remains are encountered during construction or project-related activities, PG&E will follow the requisite legal provisions provided above. If the human remains are Native American in origin, upon the NAHC establishing the MLD, PG&E will work with the MLD/MLD's representative to discern an appropriate means of treatment for the remains and associated artifacts (if any are present). If avoidance of the find is determined to be infeasible, the archaeologist shall notify the lead agencies and shall implement data recovery and treatment/mitigation consultation with the lead agency and Tribal Representative. PG&E shall be responsible for the resultant mitigation costs as well as associated curation costs if reburial on site (or other agreed-upon location) is not acceptable to the landowner. All significant findings will be documented in a summary report that will be provided to pertinent consulting parties within a year of project completion. Said report shall be submitted to the California Historic Resources Inventory System.

3.5.4 Mitigation Summary

Implementation of the following MM(s) would reduce the potential for Project-related impacts on Cultural Resources to less than significant:

MM CUL-1/TCR-1: Sensitive Resource Area Exclusion Zone
MM CUL-2: Cultural Resources Monitoring
MM CUL-3/TCR-3: Cultural and Tribal Cultural Resources Awareness Training
MM CUL-4/TCR-4: Discovery of Previously Unknown Cultural or Tribal Cultural Resources
MM CUL-5/TCR-5: Unanticipated Discovery of Human Remains

3.6 CULTURAL RESOURCES – TRIBAL

TRIBAL CULTURAL RESOURCES - Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
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, subdivision (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.	☐	☒	☐	☐

3.6.1 Environmental Setting

3.6.1.1 Ethnographic Context

The Project area is located within the ethnographic territory of the Wappo and the Patwin. Specifically, the Project area lies within the southern subdivision of the tribal territory of the Wappo, which extended from just north of Napa and Sonoma in the south to Cloverdale and Middletown in the north (Sawyer 1978).

The Patwin occupied an area measuring roughly 90 miles (north-south) by 40 miles (east-west) between the Sacramento River Valley and the San Pablo and Suisun Bays (Johnson 1978). Given the fluidity of tribal borders, it is possible that the Project area could have been utilized by both tribes.

Patwin. Patwin is the southernmost division of the Wintuan population, a distinction based primarily on linguistic variation. The Patwin are comprised of numerous different tribal groups, each with a separate dialect, and are usually separated into two primary subdivisions: Hill Patwin and River Patwin. The Hill Patwin occupied the lower, eastern slopes of the southern North Coast Ranges in the Napa Valley. The River Patwin generally occupied the west side of the lower Sacramento River below the mouth of the Feather River and the lower reaches of Cache Creek and Putah Creek in the Sacramento Valley.

The largest Patwin political unit was the tribelet, which consisted of one primary village and several satellite villages. Tribelets in the hills settled within numerous intermontane valleys, particularly along the drainages of Cache and Putah creeks (Kroeber 1925). Villages were most often located near permanent water sources and were primarily occupied in winter with the population moving to temporary camps in the summer and fall to take advantage of seasonally available resources (Johnson 1978). The nearest ethnographic village location is Suskol (CA-NAP-15/H), which is located along Suscol Creek (Heizer and Hester 1970).

Village activities were directed by a chief, who managed a wide variety of village economic and ceremonial activities. As with other northern Californian native groups, the Patwin relied on hunting, fishing, and gathering a wide variety of foods, especially deer and salmon. Acorns were a particularly important staple food. These were gathered from hill and mountain oaks, pulverized, and leached with cold water for processing into bread or soup with cooking stones (Johnson 1978). Flat stone slabs and wooden mortars were used to process acorns. Baskets were used for transportation and as milling hoppers. Flaked obsidian and occasionally chert were used in the production of scrapers, knives, projectile points, and other tools. Bone was used to make basketry awls and harpoon points (Johnson 1978).

Patwin traded for various commodities and subsistence resources, using clamshell disc beads as a medium of exchange. River Patwin initially obtained shell beads from the Pomo through their Hill Patwin neighbors. Subsequently, River Patwin traded for whole shells from the Pacific Coast and made beads

themselves. Obsidian was obtained from sources in the southern North Coast Ranges, primarily Napa Valley.

Patwin mortuary customs involved elaborate mourning ceremonies over the deceased, burial rather than cremation, interment in tightly flexed positions, and the simultaneous burial of the individual's possessions at death. According to Kroeber (1925), Patwin graveyards were often located in the village to prevent looting. At death, long burial robes of hemp, or sometimes of bear fur, were wrapped around the deceased body (Johnson 1978).

Wappo. Wappo is a dialect of the Yukian language, which also includes Yuki, Coast Yuki, and Huchnom. Wappo dialects were spoken in a territory extending from Geyserville and Cobb Mountain south into the Upper Sonoma Creek watershed and down into the Napa Valley (Tiley et al. 2005). They consisted of two divisions. The smaller division existed in a five square-mile territory south of Clear Lake. The larger division extended from just north of Napa and Sonoma in the south to Cloverdale and Middletown in the north (Sawyer 1978).

The sociopolitical unit of the Wappo was the village, which was generally located along a creek or another water source and included either one or two sweathouses depending on the size of the village. The village chief, regardless of gender, was chosen by virtue of functioning in one or more of the roles for which a need was felt. The position could be held for life, and a successor could be any other chief in the village whose following was larger than that of others. The four primary roles in which the chief served were to maintain relations with other villages, maintain the daily functioning of the village, oversee tribal ceremonies, and receive and report on news and information (Sawyer 1978).

The Wappo traveled widely throughout the region, particularly in the Russian River area, both seasonally and for trade. Although traveling to the coast to obtain seafood required the Wappo to pass through Pomo and Miwok territory, those groups seem not to have objected. The Wappo also frequently traveled to Glass Mountain to obtain obsidian, and to Nicasio, Yountville, and other areas to participate in dances and celebrations (Sawyer 1978).

Mission records reveal that the Wappo unsuccessfully battled the Spanish during the later years of the Mission system. Wappo from villages at *Canijolmano*, *Caymus*, *Chemoco*, *Huiluc*, *Locnoma*, *Mayacama*, and *Napa* were brought to the mission at Sonoma between 1823 and 1834 to be used for labor (Milliken 1995).

Today, the Mishewal-Wappo live primarily in Sonoma County. They are descended from those families who left Napa Valley, Knight's Valley, and Pope Valley and moved to the Wappo Rancheria in Alexander Valley near Healdsburg. An annual gathering of the Mishewal-Wappo provides the opportunity for older generations to meet and talk about their youth with younger generations (DiMaggio et al. 2022).

3.6.1.2 Initial Tribal Coordination

PG&E requested a search of the Sacred Lands file and a list of interested individuals from the Native American Heritage Commission (NAHC) in April 2020. The NAHC response dated April 9, 2020, stated that the search of the Sacred Lands File yielded positive results. The NAHC urged contact with the Mishewal-Wappo Tribe of Alexander Valley (Wappo Tribe) for further information (DiMaggio et al. 2022).

PG&E Cultural Resources Specialist Leslie Sakowicz contacted the Wappo Tribe and sent emails and letters and placed telephone calls to all other groups indicated on the NAHC contact list. Two of the NAHC tribes did not respond (Cortina Rancheria – Kletsel Dehe Band of Wintun Indians and The Confederated Villages of Lisjan). The Middletown Rancheria of Pomo Indians and the Wappo Tribe stated that there were no sacred lands or sacred sites are known to be in the Project area. A representative of the Wappo Tribe participated in the Extended Phase I Geoarchaeological Study and agrees with the findings (DiMaggio et al. 2022).

3.6.1.3 Cultural Resource Survey

Archaeologists completed an *Extended Phase I Geoarchaeological Study of the Project area* on April 21 through 23, 2021 (Meyer 2021). The study consisted of thirteen exploratory trenches on either side of Soscol Creek, six continuous core samples, and one shovel test unit in areas with the greatest buried site potential. The nature and extent of deposits exposed was documented in the field, and particular attention was given to those that contained buried soils or archaeological remains. The deposits in each testing area were carefully examined to identify the nature of subsurface deposits and determine whether archaeological materials are present. The geoarchaeological study was conducted to determine whether potentially buried precontact archaeological resources were present where significant earth disturbances are required along segments of the new pipeline alignment within the Project area (Meyer 2021).

The geoarchaeological study yielded a sequence of naturally stratified alluvial deposits that provide information about the nature and timing of local landscape changes, and archaeological sensitivity of the Project area; however, no buried archaeological deposits were identified in the Project area during the geoarchaeological study. Archaeologists used the geoarchaeological study to prepare a buried archaeological site sensitivity analysis to assess the likelihood of the presence of and potential for encountering subsurface cultural resource deposits during Project construction. The modeling results indicates there is a high potential for buried sites to occur in localized areas above the new alignment, near the River and Suscol Creek channels (Meyer 2021).

3.6.1.4 Formal Tribal Consultation

Pursuant to Executive Orders B-10-11 and N-15-19 affirming that State policy requires and expects coordination with tribal governments in public decision making (Appendix A), the CSLC follows its 2016 Tribal Consultation Policy, which provides guidance and consistency for staff in its interactions with California Native American Tribes (CSLC 2016). The Tribal Consultation Policy, which was developed in collaboration with tribes, other State agencies and departments, and the Governor's Tribal Advisor, recognizes that tribes have a connection to areas that may be affected by Commission actions and "that these Tribes and their members have unique and valuable knowledge and practices for conserving and using these resources sustainably" (CSLC 2016).

Additionally, under Assembly Bill (AB) 52 (Gatto, Chapter 532, Statutes of 2014), lead agencies must avoid damaging effects on tribal cultural resources, when feasible, whether consultation occurred or is required. When considering whether a resource is a tribal cultural resource and determining the significance of potential impacts, CSLC may consider, among other evidence, elder testimony, oral history, tribal archival information, testimony of an archaeologist or other expert certified by the tribe, official declarations or resolutions adopted by the tribe, formal statements by the tribe's historic preservation officer, or other historical notes and anthropological records (OPR 2017).

CSLC staff contacted the NAHC, which maintains two databases (Sacred Lands File and Native American Contacts) to assist cultural resources specialists in identifying cultural resources of concern to California Native Americans. CSLC staff contacted the NAHC to obtain information about known cultural and Tribal cultural resources and requested a list of Native American Tribal representatives who may have geographic or cultural affiliation in the proposed Project area.

The NAHC responded on November 21, 2022, stating that the Sacred Lands File database did include a previously identified sacred site in the proposed Project area. The NAHC urged contact with the Wappo Tribe (Mishewal-Wappo Tribe of Alexander Valley) for further information. The NAHC also forwarded a list of 13 tribal contacts for eight Native American tribes, which CSLC used for outreach and coordination. Only the Yocha Dehe (Yocha Dehe Wintun Nation) on the NAHC list in Napa County had submitted a written request to CSLC for notification of CEQA projects pursuant to AB 52 (see generally, Pub. Resources Code, § 21080.3.1).

On December 13, 2022, CSLC sent Project notification letters and an invitation to consult under AB 52 to the Yocha Dehe. The CSLC also notified the seven other tribes on the NAHC contact list, including the Wappo Tribe, to ensure those tribes would have an opportunity to provide meaningful input on the potential for Tribal cultural resources to be found in the proposed Project area and recommend steps to be taken to ensure adverse impacts to Tribal cultural resources are avoided. The outreach letters sent on December 13, 2022, included chairpersons and representatives of the following:

- Cachil Dehe Band of Wintun Indians of the Colusa Indian Community
- Cortina Rancheria – Kletsel Dehe Band of Wintun Indians
- Guidiville Indian Rancheria
- Middletown Rancheria of Pomo Indians
- Mishewal-Wappo Tribe of Alexander Valley
- Muwekma Ohlone Indian Tribe of the SF Bay Area
- Pinoleville Pomo Nation
- Yocha Dehe Wintun Nation

The CSLC received a response to the outreach letters from the Yocha Dehe Dehe requesting consultation. The CSLC provided Project and cultural resources survey information to the Yocha Dehe in response to their letter and held a consultation meeting with them in February 2023. The Yocha Dehe provided information related to significant tribal cultural resources outside of the Project footprint. They emphasized the proximity creates an elevated risk of finding other tribal cultural resources in and around the Project area. The Yocha Dehe reviewed the proposed mitigation measures for Tribal cultural resources and had no comments at the time of publication. They requested to continue to receive Project updates.

On July 24, 2023, the Yocha Dehe deferred Project review and monitoring to the Wappo Tribe, but requested continued Project updates. On July 28, 2023, CSLC staff consulted with the Chairman of the Wappo Tribe, Scott Gabaldo, about the Project description and mitigation measures proposed by PG&E to address potential tribal cultural resource impacts. In addition, PG&E provided a copy of the Extended Phase I Geoarchaeological Study to the Chairman, Scott Gabaldo (DiMaggio et al. 2022). On August 1, 2023, CSLC staff received confirmation from Chairman, Scott Gabaldo, that the Wappo Tribe concurs with the proposed mitigation measures in this MND.

3.6.2 Regulatory Setting

Federal and state laws and regulations pertaining to tribal cultural resources and relevant to the Project are identified in Appendix A. Local tribal cultural resources policies are identified in Appendix B.

3.6.3 Impact Analysis

Project activities would occur adjacent to two tribal cultural resources that are both considered eligible for listing on the CRHR as historical resources for the purposes of CEQA.

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

(i) Listed or eligible for listing in the California Register of Historical Resources (CRHR), or in a local register of historical resources as defined in Public Resources Code section 5020.1, subdivision (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 with Mitigation (i and ii)

The cultural resources surveys and records search identified two tribal cultural resources adjacent to the Project area: the archaeological component of P-28-000001 and the newly identified Homestead Site. The archaeological component of P-28-000001 contains a moderately dense scatter of precontact obsidian lithic debitage and tool fragments as well as historic-era artifacts. The newly identified Homestead Site contains a central concentration of historic-era archaeological materials and precontact materials that is surrounded by a larger diffuse scatter of historic-era and precontact materials. Neither resource has been formally evaluated; thus, both are considered eligible for listing on the CRHR and historical resources for the purpose of CEQA.

No excavation is proposed within either tribal cultural resource, and staging areas have been designed to avoid resource boundaries. Due to the proximity of the Project area to each resource, each will be delineated as an avoidance area. Therefore, the Project would not cause destruction or damage to these resources, nor change their function or design. No change in setting would occur, as the Project work areas would be returned to their pre-Project status. Finally, the Project would not result in the sale or neglect of a historic property. **MM CUL-1/TCR-1** would ensure less than significant impacts to these tribal cultural resources.

However, Project activities could impact previously unrecorded or undetected tribal cultural resources. Potential discoveries during Project construction could consist of historical or archaeological resources that are Native American in nature or could consist of tribal cultural resources associated with Native American history, culture, and habitation of the area. To avoid impacts to undetected tribal cultural resources, PG&E will implement **MM CUL-1/TCR-1,** and **MM CUL-3/TCR-3** through **MM CUL-5/TCR-5** to ensure unanticipated discoveries are identified, protected, and treated in a culturally appropriate manner, and that in the event of accidental discovery, further disturbance would halt until the resource has been appropriately assessed and treated, if necessary.

3.6.4 Mitigation Summary

Implementation of the following MMs would reduce the potential for Project-related impacts to Cultural Resources - Tribal to less than significant:

MM CUL-1/TCR-1: Sensitive Resource Area Exclusion Zone
MM CUL-3/TCR-3: Cultural and Tribal Cultural Resources Awareness Training

MM CUL-4/TCR-4: Discovery of Previously Unknown Cultural or Tribal Cultural Resources

MM CUL-5/TCR-5: Unanticipated Discovery of Human Remains

3.7 ENERGY

ENERGY - Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**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?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

3.7.1 Environmental Setting

Napa County regularly consumes far more energy than it produces with only about 8 percent of the County's peak electricity demand being met by energy generated within the County (Napa County 2008). Napa County's total energy consumption from October 2021 through 2022 was 865,508 megawatt hours (Find Energy 2022). PG&E is the main provider of energy and delivers electricity and natural gas through a series of facilities and services (Napa County 2008). Napa County utilizes natural gas as a common fuel for commercial, industrial, and residential uses as well as electricity production. Although Soscol Ferry Solar is located approximately 50 feet from the Project's eastern-most access road, Project activities would not occur on the solar plant property or interfere with its operations.

3.7.2 Regulatory Setting

There are no major federal laws, regulations, or policies applicable to the Project regarding energy. State laws and regulations pertaining to energy and relevant to the Project are identified in Appendix A. At the local level, policies and programs are identified in Appendix B.

3.7.3 Impact Analysis

Project implementation would temporarily increase demand for non-renewable energy (diesel fuel and gasoline) to operate construction equipment; however,

Project implementation would reduce future maintenance-related energy demand (diesel fuel and gasoline).

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

The proposed Project involves the use of heavy equipment, motor vehicles, and vessels, all powered by non-renewable petroleum-based fuel sources. As such, Project activities would result in temporary consumption of energy resources (e.g., gasoline and diesel fuel). This energy consumption would be focused on replacement pipeline installation and removal of the existing natural gas pipeline segment. Pipeline installation and decommissioning would be conducted in an efficient manner, such that consumption of energy resources would not be wasteful, inefficient, or unnecessary. This is accomplished through the utilization of fuel-efficient equipment and modern technologies such as pipe ramming and HDD methods. Project activities would not require energy from the local power grid.

The Project has been proposed to improve the current pipeline configuration and internal inspection capabilities, which streamline future maintenance of the pipeline and likely reduce maintenance-related use of energy resources (gasoline and diesel fuel). Therefore, energy impacts would be less than significant.

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 the energy section within the city of Napa Sustainability Plan or any statewide energy efficiency or renewable energy plan because the Project involves replacing old pipelines in response to a scheduled safety recommendation by the NTSB. In addition, the Project would be consistent with the policies described in the Napa County General Plan and the city of Napa General Plan. The replacement pipeline would be fully buried and compatible with surrounding land uses; therefore, there would be a less than significant impact.

3.7.4 Mitigation Summary

The Project would not result in significant impacts to Energy; no mitigation is required.

3.8 GEOLOGY, SOILS, AND PALEONTOLOGICAL RESOURCES

GEOLOGY, SOILS, AND PALEONTOLOGICAL RESOURCES - Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems	☐	☐	☐	☒

GEOLOGY, SOILS, AND PALEONTOLOGICAL RESOURCES - Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
where sewers are not available for the disposal of wastewater?				
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

3.8.1 Environmental Setting

3.8.1.1 Regional Overview

Napa County is in the northern part of the California Coast Range Geomorphic Province. The pronounced northwest orientation of the landscape is defined by a series of long ranges separated by river valleys. The Napa Valley Floor is in a diverse geologic setting dominated by Holocene and Pleistocene-age alluvial deposits. The Project site is within an area defined as the Napa River Marshes subarea (Napa County 2022a).

3.8.1.2 Topography

The Project area is characterized by relatively flat terrain, being located within the southern portion of Napa Valley. The Project area elevations average approximately 20 to 40 feet above measured sea level (Topozone 2022). Within the region, the Vaca Mountains frame the eastern side of Napa Valley, with Elkhorn Peak rising to a height of approximately 1,200 feet above measured sea level approximately 3 miles east of the Project area.

3.8.1.3 Soils

Based on a review and analysis of the Natural Resources Conservation Service (NRCS) Web Soil Survey for the Project area (USDA 2022) and County of Napa Geographic Information System (GIS) information (2022), the Project area is underlain by Reyes silty clay loam on either side of the River. Soils west of the pipeline crossing area include Diablo clay (5 to 9 percent slopes), Haire clay loam (15 to 30 percent slopes), and Clear Lake clay overwashed. Soils to the east of the River include Coombs gravelly loam (2 to 5 percent slopes), Bale clay loam (2 to 5 percent slopes) and Sobrante loam (5 to 30 percent slopes), as well as Diablo clay.

3.8.1.4 Seismicity and Faulting

An active fault is a fault that has experienced seismic activity during historic time (approximately within the last 200 years) or exhibits evidence of surface displacement during the Holocene (within the last 11,700 years). The closest active faults to the Project area are the West Napa Fault Zone and fault traces located immediately adjacent to the south of the western staging area, and approximately 0.25 miles to 2 miles west of the pipeline crossing area, and the Green Valley Fault located approximately 7 miles east of the Project site. These fault zones are identified as Alquist-Priolo active earthquake hazard zones by the California Department of Conservation (CDC 2022a; USGS 2022).

3.8.1.5 Subsidence

Subsidence is the gradual settling or sudden sinking of the land surface from changes that take place underground, primarily from groundwater or oil pumping. According to the California Department of Water Resources (DWR 2023), subsidence is not considered an issue within the Project area.

3.8.1.6 Liquefaction

Liquefaction is defined as the sudden loss of soil shear strength resulting from a rapid increase of soil pore water pressures caused by cyclic loading from a seismic event. For liquefaction to occur, loose sandy soils or non-plastic fine-grained soils need to exist below groundwater. The California Geologic Survey (CGS) has designated certain areas within California as potential liquefaction hazard zones. These are areas considered at risk of liquefaction related ground failure during a seismic event, based upon mapped surface deposits and the presence of a relatively shallow water table. According to the California Geologic Survey (2022) and Napa County (2022d), the western portion of the Project area is within an area that has a high potential for liquefaction, and the area east of the River has a low to high potential for liquefaction to occur.

3.8.1.7 Paleontological Resources

Paleontological resources include fossil remains, as well as fossil localities and rock or soil formations that have produced fossil material. Fossils are the remains or traces of prehistoric animals and plants. Paleontological sensitivity is a qualitative assessment based on the paleontological potential of the stratigraphic units present, the local geology and geomorphology, and other factors relevant to fossil preservation and potential yield. The majority of the Project area is immediately underlain by Holocene alluvium and alluvial fan

deposits, which are likely too young to contain fossils. Moreover, there are no records of paleontological resources found in Holocene deposits in Napa County (City of Napa 2022b).

3.8.2 Regulatory Setting

Federal and state laws and regulations pertaining to geology, soils, and paleontological resources and relevant to the Project are identified in Appendix A. Local policies or regulations applicable to the Project are identified in Appendix B.

3.8.3 Impact Analysis

The Project area is in proximity to active faults. Other Project components as they relate to geology, soils, and paleontological resources include temporary removal of topsoil and native soils during excavation activities and temporary disturbance of an area of active channel deposits or basin deposits of the River (Holocene age or younger Quaternary alluvium deposits).

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

(i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

(ii) Strong seismic ground shaking?

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

Less than Significant Impact (i through iii)

There are Alquist-Priolo active earthquake fault zones directly to the west and each of the Project area (CDC 2022a). The nearest known fault (West Napa Fault Zone) is directly adjacent to the western Project area.

However, in accordance with CEQA, Project analysis should address the potential impacts of the Project on the environment, not the potential impacts of the environment on the Project. As stated by the California Supreme Court, "agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents. But when a proposed project risks exacerbating those environmental hazards or

conditions that already exist, an agency must analyze the potential impact of such hazards on future residents or users." (*California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369, 386 (CBIA)).

There are active faults in proximity to the Project area. But, the Project's Phases 1 and 2 activities would not exacerbate existing geological conditions or the potential for seismic ground shaking. The Phase 1 HDD activities would not be strong enough to trigger an earthquake, liquefaction, or landslides. Therefore, the Project is consistent with the Court's ruling in CBIA; and potential impacts would be less than significant.

(iv) Landslides?

No Impact

The topography in the Project area and vicinity is generally flat and does not have the potential to slide or experience sliding from adjacent areas. While there are minor slopes associated with the levees and channel banks, these are not expected to be at risk of substantial movement during Project activities. Therefore, the Project would not result in landslides and there would be no impact.

b) Result in substantial soil erosion or the loss of topsoil?

Less than Significant with Mitigation

Phase 1

During Phase 1, approximately 0.18 acre (8,041 square feet) (Table 2-7) of topsoil would be temporarily removed during excavation of bore pits, bell holes used for flushing and cementing pipeline segments, and excavations used for pipeline tie-in. However, this topsoil would be replaced as part of the backfilling process. Pipeline replacement activities would not involve construction of any steep slopes or removal of substantial amounts of vegetation that could increase soil erosion during rain events. The Project would obtain coverage under the National Pollutant Discharge Elimination System (NPDES) Statewide Construction General Permit (Order No. 2012-0006-DWQ). The NPDES Construction General Permit requires that a Stormwater Pollution Prevention Plan (SWPPP) be prepared and implemented, as outlined in **MM HYDRO-1** (Hydrology and Water Quality). The SWPPP would include erosion and sediment control practices and housekeeping measures for control of contaminants. Erosion

control practices would include source control measures such as wetting of dry and dusty surfaces to prevent fugitive dust emissions, preservation of existing vegetation, and effective soil cover (e.g., geotextiles, straw mulch, hydroseeding) for inactive areas and finished grades to prevent sediments from being dislodged by wind, rain, or flowing water. With implementation of **MM HYDRO-1** (Hydrology and Water Quality), Phase 1 of the Project would have a less than significant impact on soil erosion or the loss of topsoil.

Phase 2

Topsoil would be temporarily removed during excavation of pipeline segments and bell holes used for flushing and cementing pipeline segments to be abandoned in-place. However, this topsoil would be replaced as part of backfilling. Pipeline segments buried within the riverbanks would be removed and the areas backfilled, compacted, and returned to pre-Project conditions. Similar to Phase 1, PG&E would obtain coverage under the NPDES Statewide Construction General Permit (Order No. 2012-0006-DWQ) and implement a SWPPP. In addition, as noted in Section 3.4, Biological Resources, the pipeline decommissioning and removal activities would result in a small temporary impact in excavation of terrestrial areas and would not result in a permanent increase in erosion. Upon completion of Phase 2 activities, all soils disturbance areas would be stabilized in accordance with **MM BIO-11** (Site Restoration Plan, Biological Resources).

With implementation of **MM HYDRO-1** and **MM BIO-11**, the Project would have a less than significant impact on soil erosion or the loss of topsoil.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less than Significant Impact

The Project area has been identified as having a low to high potential for liquefaction to occur and is located in the West Napa Fault Zone. However, Project disturbances to the ground surface would be short-term in nature and the Project would not result in any permanent changes to the Project area's topographic features. Excavations and areas of disturbance would be backfilled with native earth material and would not result in any changes to geologic units or soils, resulting in a less than significant impact.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

No Impact

Moderately expansive soils may occur within Project work areas. However, the replacement pipeline would be designed to safely withstand expansive soil-related movement, such that the Project would not increase the risk of potential pipeline failure or leakage. Therefore, there would be no impact.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact

The Project would not involve the use of septic tanks or onsite sewage disposal. Portable restrooms would be provided onsite for workers and would be regularly serviced to remove sewage that would be disposed of at a nearby municipal wastewater treatment facility. Therefore, there would be no impact.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant Impact

All Project excavations would occur within active channel deposits or basin deposits of the River (Holocene age or younger Quaternary alluvium deposits). Additionally, there are no records of paleontological resources found in Holocene deposits in Napa County (City of Napa 2022b); therefore, the Project area has a low probability for paleontological resources to occur and impact would be less than significant.

3.8.4 Mitigation Summary

Implementation of the following MMs would reduce the potential for Project-related impacts to Geology, Soils, and Paleontological Resources to less than significant:

MM BIO-11: Site Restoration Plan
MM HYDRO-1: Stormwater Pollution Prevention Plan

3.9 GREENHOUSE GAS EMISSIONS

GREENHOUSE GAS EMISSIONS – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

3.9.1 Environmental Setting

Greenhouse Gases (GHGs), defined as any gas that absorbs infrared radiation in the atmosphere, include, but are not limited to, water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorocarbons. These GHGs trap and build up heat in the atmosphere near the earth's surface, commonly known as the Greenhouse Effect. The atmosphere and the oceans are reaching their capacity to absorb CO_2 and other GHGs, leading to significant global climate change in the future.

Unlike criteria pollutants and TACs, which are pollutants of regional and local concern, GHGs and climate change are a local, regional, and global issue. There is widespread international scientific consensus that human-caused increases in GHGs have and will continue to contribute to climate change, although there are various studies concerning the magnitude and rate of warming.

CO2 is also used as a reference gas for climate change. To account for different GHG global warming potentials, emissions are often quantified and reported as CO2 equivalents (CO2E). Currently, the CO2 global warming potential is set at a reference value of 1, CH4 has a global warming potential of 27.9 (i.e., 1 ton of methane has the same warming potential as 27.9 tons of CO2), while nitrous oxide has a warming potential of 273.0.

3.9.1.1 Global Setting

Each of the last four decades has been successively warmer than any decade that preceded it since 1850. Global surface temperature in the first two decades of the 21st century (2001 to 2020) was 1.8 degrees Fahrenheit (°F) higher than 1850-1900. Global surface temperature was 2.0°F higher in 2011through 2020 than 1850 through 1900, with larger increases over land (2.9°F) than over the ocean (1.6°F). The current estimated increase in global surface temperature is greater than previous estimates principally due to further warming between 2003 and 2012 (Intergovernmental Panel on Climate Change 2021).

Global mean sea level increased by 0.66 feet between 1901 and 2018. The average rate of sea level rise was 0.051 inches per year between 1901 and 1971, increasing to 0.075 inches per year between 1971 and 2006, and further increasing to 0.15 inches per year between 2006 and 2018. Human influence was very likely the main driver of these increases since at least 1971 (Intergovernmental Panel on Climate Change 2021).

3.9.1.2 National Setting

In 2021, the average contiguous U.S. temperature was 54.5°F, 2.5°F above the 20th-century average and ranked as the fourth-warmest year in the 127-year period of record. The six warmest years on record have all occurred since 2012. The December 2021 contiguous U.S. temperature was 39.3°F, 6.7°F above average and exceeded the previous record set in December 2015.

3.9.1.3 California Setting

Climate change is having and will continue to have widespread impacts on California's environment, water supply, energy consumption, public health, and economy. Many impacts already occur, including increased fires, floods, severe storms, and heat waves. Documented effects of climate change in California include increased average, maximum, and minimum temperatures; decreased spring runoff to the Sacramento River; shrinking glaciers in the Sierra Nevada; Statewide sea level rise; warmer temperatures in Lake Tahoe, Mono Lake, and other major lakes; and plant and animal species found at changed elevations (California Governor's Office of Planning and Research 2018).

<u>San Francisco Bay and Napa Area Setting</u>

Climate change is already affecting agriculture, infrastructure, transportation, energy, recreation, industry, households, human health, and natural ecosystems

in the San Francisco Bay Area including the Napa River valley; extreme weather and natural hazards will continue to impact these and other sectors in the 21st century. A general summary of climate risks facing the region include warming temperatures, highly variable precipitation, longer and deeper droughts, increased vulnerability of transportation infrastructure and energy systems, vulnerability of coastal wastewater treatment plants to sea level rise, and increased public health risk associated with more extreme heat events, increased air pollution from ozone formation and wildfires, and flooding from sea level rise and high-intensity rain events (California Governor's Office of Planning and Research 2019).

3.9.2 Regulatory Setting

Federal and state laws and regulations pertaining to greenhouse gas emissions and relevant to the Project are identified in Appendix A. Various entities address this issue area at the state and regional levels. In efforts to reduce and mitigate climate change impacts, State and local governments are implementing policies and initiatives aimed at reducing GHG emissions. California, one of the largest state contributors to the national GHG emission inventory, has adopted significant reduction targets and strategies.

3.9.2.1 California Regulation Summary

Critical legislation affecting GHG emissions in California was the California Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32). AB 32 (Nuñez; Chapter 488, Statutes of 2006) focused on reducing GHG emissions in California and required the State to reduce GHG emissions to 1990 levels by 2020. In 2016, the State met the AB 32 target, 4 years early. The State Legislature passed Senate Bill (SB) 32 (Pavley; Chapter 249, Statutes of 2016), which codifies a 2030 GHG emissions reduction target of 40 percent below 1990 levels. With SB 32, the Legislature passed companion legislation AB 197, which provides additional direction for developing the Scoping Plan. The 2017 update to the Scoping Plan focuses on strategies to achieve the 2030 target set by Executive Order B-30-15 and codified by SB 32. CARB prepared a Draft Scoping Plan for Climate Change in 2008 pursuant to AB 32. The Climate Change Scoping Plan was updated in May 2014, in November 2017 and a 2022 Climate Change Scoping Plan is in progress.

In 2016, the State met the AB 32 target, 4 years early. The State Legislature passed Senate Bill (SB) 32 (Pavley; Chapter 249, Statutes of 2016), which codifies a 2030 GHG emissions reduction target of 40 percent below 1990 levels. With SB

32, the Legislature passed companion legislation AB 197, which provides additional direction for developing the Scoping Plan. The 2017 update to the Scoping Plan focuses on strategies to achieve the 2030 target set by Executive Order B-30-15 and codified by SB 32.

Assembly Bill 1279, the California Climate Crisis Act and Senate Bill 1020, both signed in 2022, sets a goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter" and interim targets to the policy framework originally established in SB 100 (DeLeón, Chapter 312, Statutes of 2018) to require renewable energy and zero-carbon resources to supply 90 percent of all retail electricity sales by 2035 and 95 percent of all retail electricity sales by 2040. The goal of carbon neutrality by 2045 is in addition to other statewide goals, meaning not only should emissions be reduced to 80 percent below 1990 levels by 2050, but that, by no later than 2045, the remaining emissions should be offset by equivalent net removals of GHGs from the atmosphere, including through sequestration in forests, soils, and other natural landscapes. CARB finalized the 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) on November 16, 2022, which lays out a path to achieve targets for carbon neutrality and reduce anthropogenic greenhouse gas emissions by 85 percent below 1990 levels no later than 2045.

3.9.2.2 Local Regulations

The Project site includes portions of both Napa County and the city of Napa; therefore, local regulations are discussed below separately for these areas.

Napa County

Napa County developed a draft Climate Action Plan in May 2019 which included 25 primary GHG reduction measures and 26 supporting GHG reduction measures. This Plan has not been adopted to date.

City of Napa

The city of Napa has not developed a climate action plan or any guidance related to the assessment of GHG emissions.

3.9.2.3 GHG Emissions Thresholds of Significance

Neither Napa County nor the city of Napa have adopted any significance thresholds for GHG emissions. The BAAQMD has not adopted any significance thresholds for construction-related GHG emissions (BAAQMD, 2017).

The BAAQMD has developed GHG emissions thresholds for land use development projects and general plans and other long-term community-wide planning efforts (BAAQMD, 2022). Thresholds for land use development projects are based on building energy use and transportation (vehicle miles traveled). Thresholds for general plans are based on meeting the State's goals to reduce emissions to 40 percent below 1990 levels by 2030 and carbon neutrality by 2045; or consistency with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b). The Project is not a land use development project or a community planning project. In addition, a local GHG reduction strategy has not been adopted. Therefore, these thresholds do not apply.

In the absence of any applicable threshold of significance, this analysis uses the 2017 BAAQMD threshold for operation of stationary-source projects of 10,000 metric tons GHG per year CO_2E to evaluate the level of impact.

3.9.3 Impact Analysis

GHG emissions associated with pipeline replacement and decommissioning may contribute to global climate change.

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than Significant Impact

Given the global nature of climate change resulting from GHG emissions, GHG emission impacts are inherently cumulative in nature. The determination whether a project's GHG emissions impacts are significant depends on whether emissions would be a cumulatively considerable contribution to the significant cumulative impact.

The primary sources of GHG emissions are internal combustion engines to be used during Project implementation. Specifically, conventional construction equipment such as dozers, excavators, drill rigs, generators, loaders, and trucks would be utilized during Project activities. Additional sources of GHG emissions

include marine vessels and on-road motor vehicles used to transport materials and personnel.

GHG emissions for on-road motor vehicles and off-road construction equipment proposed to be utilized for Phases 1 and 2 of the Project were estimated using emissions factors from CARB's EMFAC 2021 and OFFROAD 2021 web-based models (Appendix E). In addition, exhaust emissions from engines used on marine vessels were estimated using emissions factors from the San Pedro Bay Emissions Inventory Methodology Report (Starcrest 2019). Table 3.9-1 lists the estimated GHG emissions calculated for each work task of both Phases 1 and 2 of the Project. GHG emissions of Phases 1 and 2 are summed because both phases are currently planned to be implemented in the same 12-month period. The Project's total GHG emissions would not exceed the 2017 BAAQMD significance threshold; therefore, the Project's incremental increase in GHG emissions would not be cumulatively considerable and have a less than significant impact on global climate change.

Table 3.9-1. Estimated GHG Emissions (Metric Tons)

Work Task	CO_2	CH_4	N_2O	CO_2E
Phase 1				
Site Mobilization and Excavation	24.2	0.001	0.001	24.6
Pipe String Welding	112.7	0.005	0.002	113.4
HDD Operations	382.0	0.015	0.007	384.4
Pipe String Testing, Tie-in and Pipe Ramming	60.5	0.003	0.002	61.2
Demobilization and Restoration	24.1	0.001	0.001	24.4
Total Phase 1	**603.5**	**0.025**	**0.013**	**608.0**
Phase 2				
Mobilization, Pigging and Flushing	15.7	0.001	0.001	16.0
Excavation	51.3	0.003	0.001	51.7
Terrestrial Decommissioning	41.5	0.002	0.001	41.9
Pre-Project Bathymetric Survey and Riverine Decommissioning	58.5	0.002	0.002	59.1
Restoration, Demobilization and Post-Project Bathymetric Survey	25.4	0.001	0.001	25.7
Total Phase 2	**192.4**	**0.009**	**0.006**	**194.4**
Total Project	**795.9**	**0.034**	**0.019**	**802.4**

Work Task	CO_2	CH_4	N_2O	CO_2E
2017 BAAQMD Significance Threshold				***10,000***

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

No Impact

The Project would generate only temporary GHG emissions and would not conflict with any local climate plan or any state or local policies, programs, or regulations; therefore, there would be no impact.

3.9.4 Mitigation Summary

The Project would have less than significant effects on Greenhouse Gas Emissions; no mitigation is required.

3.10 HAZARDS AND HAZARDOUS MATERIALS

HAZARDS AND HAZARDOUS MATERIALS – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**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?	☐	☒	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise or people residing or working in the project area?	☐	☒	☐	☐

HAZARDS AND HAZARDOUS MATERIALS – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☒	☐	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☒	☐

3.10.1 Environmental Setting

The Project area spans the River, which is located between the boundaries of the city of Napa on the west and Napa County to the east. This area is predominantly open space but is intermixed with scattered commercial and industrial development. NapaSan is located adjacent to the eastern work area, and Migration Winery is located adjacent to the western pipe staging area south of Stanly Lane. Highway 12 is located directly north of the Project corridor. The closest residences to the Project site are located south of Stanly Road approximately 200 feet south of the Pipe Staging Area. The nearest airport (Napa County Airport) is located approximately 1 mile south of the East Work Area, however the eastern portion of the Project area is located adjacent to the boundaries of the designated Airport Industrial Area. The nearest school is the Pacific Union College of Nursing located approximately 1.25 miles northeast in the community of Rocktram.

The State Water Resources Control Board (SWRCB) GeoTracker database did not identify any current hazardous waste sites within the Project site (SWRCB 2022). However, a closed leaking underground storage tank (LUST) site is located directly adjacent to the western staging area (ID No. T0605500034). This site included a former diesel leak affecting soil in the 0area but was closed in 1990. Additionally, NapaSan contains a closed LUST site formerly identified as Napa American Canyon Joint Waste (T0605500103), which included a gasoline leak to groundwater, but was closed in 1993.

The Project area is not included on the Department of Toxic Substances Control (DTSC) Hazardous Waste and Substances Site List – Site Cleanup (Cortese List) in Project area.

3.10.2 Regulatory Setting

Federal and state laws and regulations pertaining to hazards and hazardous materials and relevant to the Project are identified in Appendix A. Local policies pertaining to hazards and hazardous waste are identified in Appendix B.

3.10.3 Impact Analysis

The Project may require minor detours or closures of local roadways and informal dirt roadways during construction activities. The Project area is located approximately 1 mile from the Napa County Airport. Other hazards include routine storage, transport, use, and disposal of small quantities of hazardous materials during Project activities on the existing pipeline, which potentially contains asbestos coating.

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less than Significant with Mitigation

The Project would involve routine storage, transport, use, and disposal of small quantities of hazardous materials during Phases 1 and 2 of the Project. These materials may include pipeline flush water, gasoline, diesel, hydraulic fluids, lubricants, coolants, solvents, and asbestos-containing pipeline coating that are all regulated by federal, State, and local laws and regulations. Improper storage and handling of these materials during Project activities could be considered a potentially significant impact to the environment and nearby residences.

To reduce potential impacts from mishandling or spills of hazardous materials, PG&E will implement **MM HAZ-1** and ensure the correct storage and handling of materials by requiring the development and inclusion of a Project Work and Safety Plan (PWSP). The PWSP would require separate storage for incompatible hazardous materials, secondary containment for hazardous materials storage, trained personnel for hazardous materials handling, onsite spill clean-up kits, and equipment refueling stations to be in specific sites with appropriate spill containment equipment. With the implementation of this measure, the impact would be less than significant.

MM HAZ-1: Project Work and Safety Plan. A Project Work and Safety Plan (PWSP) shall be submitted to CSLC staff and all other pertinent agencies for review and approval at least 30 days prior to the implementation of each Project Phase. The PWSP shall include the following information (at a minimum):

- Contact information
- Hazardous Spill Response and Contingency Plan
- Emergency Action Plan
- Summary of the Project Execution Plan
- Project Management Plan, including testing and proper disposal of used HDD fluids and drill cuttings
- Site Safety Plan, including Material Safety Data Sheets (MSDS) and measures for proper handling of hazardous materials including, but not limited to, soils containing residual pesticides
- Permit Condition Compliance Matrix

The existing pipeline may have an asbestos coating, which would be disturbed during pipeline removal activities. A potentially significant impact to human health could occur if pipeline coating containing asbestos and asbestos fibers becomes airborne in the vicinity of nearby residences. To reduce potential impacts to worker or public health from airborne asbestos, PG&E will implement **MM HAZ-2** outlining Project-specific asbestos handling procedures to be followed during pipeline removal.

MM HAZ-2: Asbestos Handling Procedures. Construction personnel shall be informed of the potential presence of asbestos-containing material (ACM) at the Project site prior to their assignment. After exposing the existing pipeline for removal, and prior to the start of cutting and tie-in activities, a certified asbestos inspector/consultant shall test whether the coating consists of ACM greater than 1 percent by weight. If testing reveals the coating contains ACM less than 1 percent by weight, the pipeline segment shall be treated as normal construction waste and no additional measures are required. If testing reveals the coating contains ACM greater than 1 percent by weight, the materials shall be abated by a certified asbestos abatement contractor in accordance with the regulations and notification requirements of the Bay Area Air Quality Management District asbestos notification system and in accordance with applicable worker safety regulations. All ACM removed from the pipeline segment shall be labeled, transported, and disposed of at a verified and approved ACM disposal facility.

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 with Mitigation

Phase 1

As noted above, **MM HAZ-1** would include a Hazardous Spill Response and Contingency Plan and Site Safety Plan to address the accidental release of hazardous materials including fuel spills. Phase 1 activities could result in the release of hazardous materials to the environment. Although HDD installation activities would be closely monitored, the potential exists for drilling fluids (predominantly bentonite clay) to migrate from the drill hole to surrounding fractured rock and sediments and be discharged to the land or surface water along the HDD alignment. Aquatic release and the associated biological impacts are analyzed in Section 3.4, Biological Resources.

To reduce the potential impacts from terrestrial releases of drilling fluid to agricultural soils or release of drilling fluid to waterways and wetlands, PG&E will implement **MM HAZ-3** which will require the development and implementation of an Inadvertent Release Contingency Plan during Phase 1 HDD activities to reduce impacts to less than significant.

> **MM HAZ-3: Inadvertent Release Contingency Plan**. An Inadvertent Release Contingency Plan shall be prepared and implemented to detect and address any inadvertent drilling fluid migration outside of the HDD borehole, including potential drilling fluid migration into the River. At least 30 days prior to Phase 1 implementation, PG&E shall submit a Final Inadvertent Release Contingency Plan to CSLC for review and approval.

Phase 2

As noted in a), **MM HAZ-1** would require a Hazardous Spill Response and Contingency Plan and Site Safety Plan to address the accidental release of hazardous materials including fuel spills from Phase 2 equipment. Phase 2 would include pigging and flushing the existing pipelines to remove residual hydrocarbons, which would be captured in temporary tanks or removed with vacuum trucks and transported offsite. Flush water could contain residual pipeline liquids but would be tested to identify levels of contamination and screened to determine if they should be disposed of at an appropriate facility or discharged at an authorized site. Potential impacts to water resources

associated with release of any pipeline flush water would be reduced by implementation of **MM HAZ-1** and are further addressed in Section 3.11, Hydrology and Water Quality. Additionally, removal of Segment 2 across the River would remove the pipelines from the riverbed and could dislodge existing debris, impact previously undetected existing utilities, or leave behind debris, all constituting a potential release of hazardous materials.

To reduce potential impacts from potential riverbed debris or impacts to existing utilities, PG&E will implement **MM HAZ-4** which will require a pre-Project Geophysical Debris Survey of the riverbed to identify pre-Project bottom contours as well as any debris or exposed utilities in order to avoid those areas during decommissioning. **MM HAZ-4** also includes a post-Project survey to ensure no Project-related debris is left at the site.

> **MM HAZ-4: Pre- and Post-Project Bathymetric and Surficial Features Multi-Beam Debris Surveys**. Pre- and post-Project Bathymetric and Surficial Features Multi-Beam Debris Surveys of the riverbed shall be conducted using a vessel equipped with a multi-beam sonar system. The pre-Project survey, with previously collected data, shall serve to fully identify pre-Project bottom contours, debris, and any exposed utilities, and a copy of the survey shall be submitted to CSLC staff for review 30 days prior to Project implementation. A post-Project Bathymetric and Surficial Features Multi-Beam debris survey shall also be performed, and the results compared to the initial baseline survey. Any anomalous objects located in the survey would be positively identified by divers and any remaining objects related to the decommissioning would be removed. A Project close-out report with drawings and coordinates of any facilities abandoned in place would be submitted to CSLC within 60 days of work completion.

Finally, the existing pipeline may have an asbestos coating, which would be disturbed during pipeline removal activities. A potentially significant impact to human health could occur if pipeline coating containing asbestos and asbestos fibers becomes airborne in the vicinity of nearby residences. To reduce potential impacts to worker or public health from airborne asbestos, PG&E will implement **MM HAZ-2** outlining Project-specific asbestos handling procedures to be followed during pipeline removal.

With implementation of **MM HAZ-1, MM HAZ-2, MM HAZ-3,** and **MM HAZ-4,** impacts resulting from hazardous materials would be reduced to less than significant.

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

The Project area is in an agricultural and commercial and industrial area, and there are no existing or proposed schools within 0.25 mile of the Project area; therefore, there would be 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

The Project area is not located within or near any hazardous materials sites compiled pursuant to Government Code section 65962.5 (SWRCB 2022, DTSC 2022); therefore, there would be no impact.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

Less than Significant with Mitigation

The Project area is located approximately 1 mile from the Napa County Airport, and the eastern portion of the Project area is located adjacent to the boundaries of the designated Airport Industrial Area. According to the Napa County Airport Master Plan (County of Napa 2007) and Airport Land Use Compatibility Plan (Shutt Moen Associates 1999), the Project area is located within an area defined within airport compatibility areas C and D, and west of the designated airport approach zones. Prohibited uses within the C and D compatibility areas include residential uses, sensitive public uses such as schools, libraries, hospitals, and daycare centers, and any uses that would be hazardous to flight.

The Project would require temporary construction adjacent to the outer boundaries of the designated Napa County Airport industrial area and within compatibility areas C and D. As discussed in Section 3.14, Noise, Project activities would not result in any permanent noise impacts or long-term exposure

of persons to noise. During construction, Project activities would be located at a sufficient distance from existing airport noises and are outside of the 55-decibel ambient noise contour. Project work activities would be primarily conducted during daytime hours; however, limited nighttime operations (a few hours after sunset) may be required, specifically during certain Project components such as pipeline pullback, and to complete the Project within the defined seasonal constraints. Project lighting, if needed for nighttime operations, may adversely interfere with existing airport operations. Following Project implementation, the only above ground components would be pipeline markers, which would not contribute to light or glare.

To reduce potential impacts to existing airport operations, PG&E will implement **MM AES-1** (Aesthetics) which will reduce glare, focus lighting on designated work areas, and avoid interference with the airport lighting.

Work activities would include the temporary use of construction equipment including large cranes, which are listed as a temporary obstruction that must be evaluated and subject to noticing requirements outlined in 14 CFR Part 77 (Objects Affecting Navigable Airspace), which specifies that Federal Aviation Administration (FAA) notification of proposed construction is required for any construction within 10,000 feet (1.9 miles) of a public use or military airport.

To reduce impacts from potential conflicts of Project equipment with the Napa County Airport, PG&E will implement **MM HAZ-5** which includes timing specifications required for FAA notification. This coordination would mitigate the potential for impacts from working adjacent to the Napa County Airport area to less than significant.

> **MM HAZ-5: Notifications to Airport Regulatory Agencies Prior to Initiation of Work Activities**. In accordance with 14 CFR Part 77, FAA form 7460-1 a "Notice of Proposed Construction or Alteration" must be completed, if the conditions listed at § 77.9 are applicable, and submitted 60 days before Project initiation for review and Project clearance. The form should be submitted to the Western-Pacific Regional Airports Division, San Francisco Airports District Office (ADO). Additionally, notification to the Napa County Airport manager must be provided at (707) 253-4665 at least 60 days before Project implementation.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than Significant with Mitigation

The Project area is located primarily within agricultural open space and would not affect any roadways included in the Napa County emergency evacuation plans. However, during construction, short-term closure of local roadways and informal dirt roadways may be required. Specifically, during Phase 1, the Pipe Staging Area would be located adjacent to the intersection of Ranch Road and Stanly Lane and may require short-term closures for equipment access and materials staging. Short-term road closures would also be required along the NapaSan private access road while the pipe ramming work area is mobilized and during ramming operations (4 days). During Phase 2, a small segment of the intersection of Soscol Ferry Road where it crosses Suscol Creek may be temporarily closed while an existing pipeline segment is filled with cement slurry. There would be no closures or detours along State Highway 12 which provides emergency access for the local area.

To reduce impacts to traffic and circulation that would adversely affect emergency access, PG&E will implement **MM TRA-1** (Transportation), which would provide a Traffic Control Plan including a detour route for personal and emergency vehicles and bicycles within the Project's vicinity (see Section 3.18, Transportation). Project activities are temporary and would not permanently impair implementation of or physically interfere with an adopted emergency response or excavation plan. Therefore, the impacts would be less than significant.

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 Project site is not considered to be located within a fire hazard area by Napa County (County of Napa 2022a Fire Hazard Severity Map) or by the California Department of Forestry and Fire Protection (CAL FIRE 2022). The Project area is served by the Napa County Fire Department (1820 Monticello Road, Napa CA – located approximately 7 miles north of the Project site) and the city of Napa Fire Department (1600 Clay Street, Napa CA - located approximately 4 miles north of the Project site). The Project area can be accessed quickly from Highway 121 to Highway 12.

The Project does not involve any new development that could increase the number of persons or structures exposed to the existing wildland fire hazard. However, the Project involves potential ignition sources such as mobile and stationary equipment, vehicles, welders, and grinders. Standard safety features would be utilized, such as spark arrestor mufflers and grinder shields. Project activities would occur within areas of irrigated pastures or the River floodplain, with relatively high soil moisture. In addition, potentially flammable vegetation would be removed as part of work and staging area setup. Therefore, the Project-related increase in risk of property loss, injury, or death from wildland fires is considered a less than significant impact.

3.10.4 Mitigation Summary

Implementation of the following MMs would reduce the potential for Project-related impacts from Hazards and Hazardous Materials to less than significant:

MM HAZ-1: Project Work and Safety Plan
MM HAZ-2: Asbestos Handling Procedure
MM HAZ-3: Inadvertent Release Contingency Plan
MM HAZ-4: Pre- and Post-Project Bathymetric and Surficial Features Multi-Beam Debris Surveys
MM HAZ-5: Notifications to Airport Regulatory Agencies Prior to Initiation of Work Activities
MM AES-1: Glare Minimization
MM TRA-1: Traffic Control Plan

3.11 HYDROLOGY AND WATER QUALITY

HYDROLOGY AND WATER QUALITY - Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☒	☐	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would:	☐	☒	☐	☐
i) Result in substantial erosion or siltation on or off site;	☐	☒	☐	☐
ii) Substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site;	☐	☐	☐	☒
iii) 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; or	☐	☐	☐	☒
iv) Impede or redirect flood flows?	☐	☐	☒	☐

HYDROLOGY AND WATER QUALITY - Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

3.11.1 Environmental Setting

3.11.1.1 Surface Water Characteristics

The Project area spans the Napa River, which is approximately 55 miles long. The headwaters begin as the seasonal Kimball Canyon Creek in Robert Louis Stevenson State Park at an elevation of 3,745 feet, which descends the southern slope of Mount St. Helena to Kimball Canyon Dam, then flows south for about four miles, entering the head of the Napa Valley north of Calistoga. In the Napa Valley, the River flows southeast past Calistoga, St. Helena, Rutherford, Oakville, and through Napa. Downstream from Napa, the River forms a tidal estuary, entering Mare Island Strait, a narrow channel on the north end of San Pablo Bay. It then flows into San Pablo Bay through the Napa Sonoma Marsh.

The River watershed encompasses approximately 426 square miles. Several large dams were built between 1924 and 1959 on major eastside tributaries (Conn, Rector, Milliken, and Bell dams) and the northern headwaters of the River (Kimball Dam).

3.11.1.2 Surface Water Quality

The San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) has jurisdiction over the River basin. To protect the quality of surface and ground waters in this region, the SFBRWQCB has developed a Water Quality Control Plan. This Plan outlines beneficial uses for water in the region, establishes water quality objectives to protect beneficial uses, and describes programs implemented to meet the Napa-Sonoma Valley Groundwater Basin Plan's (Basin Plan's) objectives. Beneficial uses identified for non-tidal portions of the River are agricultural water supply, municipal water supply, groundwater recharge,

commercial and sport fishing, cold freshwater habitat, fish migration, rare species habitat, fish spawning, warm freshwater habitat, wildlife habitat, water contact recreation, non-water contact recreation, and navigation.

The Project area includes tidal portions of the River which are considered impaired under Section 303(d) of the Clean Water Act due to elevated levels of pathogens, sedimentation, and siltation. For a body of water to have an "impaired" status, data indicates that adopted water quality objectives (i.e., pollutant limits) are continually exceeded or that beneficial uses are not fully protected.

Total Maximum Daily Loads (TMDLs) are action plans that have been developed (as required by the Clean Water Act) for pollutants in the watershed. The TMDL describes a plan for restoring impaired surface waters that identifies the maximum amount of pollutant a body of water can receive while still meeting water quality standards. TMDLs affect all or parts of the River watershed including those for pathogens (bacteria from septic tanks and agricultural runoff) and sediment (including a Habitat Enhancement Plan for steelhead and chinook salmon).

3.11.1.3 Flood Hazard

The Project area is included within Flood Insurance Rate Map 06055C0606F, which indicates the West Work Area and East Work Area are located within a Special Flood Hazard Area (without base flood elevation). The in-river work area is located within the designated Napa River Floodway.

3.11.1.4 Groundwater Environment

The Project area is located within the Napa-Sonoma Valley Groundwater Basin at the boundary of two subbasins, with the Napa-Sonoma Lowlands Subbasin to the west and the Napa Valley Subbasin to the east.

<u>Napa-Sonoma Lowlands Subbasin</u>

This subbasin occupies a lowland area immediately north of San Pablo Bay and bounded to the north by the Mayacamas Mountains. The southern extent of the subbasin constitutes tidal marshlands lying at or below sea level. The marshlands merge with alluvial plains of the Napa and Sonoma valleys to the north. The primary water-bearing formations include Recent and Pleistocene Alluvium and the Pleistocene Huichica Formation.

The Napa Valley Subbasin

This Subbasin is in a structural depression in the northern Coast Range Province, characterized by northwest trending low mountainous ridges separated by intervening stream valleys. Napa Valley is a relatively narrow, flat-floored stream valley drained by the Napa River. Soil and surficial geologic units of high permeability within the Subbasin enable infiltration of precipitation and surface waters, which constitute the primary sources of groundwater recharge.

3.11.1.5 Groundwater Management

The Sustainable Groundwater Management Act was passed in 2014 to help protect the state's groundwater resources. The Act focuses on local control of groundwater and initiated a decades-long process for communities to join to understand the conditions of local groundwater basins, identify issues, and develop solutions. The Act requires the formation of groundwater sustainability agencies in high- and medium-priority groundwater basins and sub-basins, and preparation and submittal of groundwater management plans to California DWR.

Napa-Sonoma Lowlands Subbasin

This subbasin has been designated a very low priority basin such that a groundwater sustainability plan does not need to be developed and implemented.

Napa Valley Subbasin

This subbasin has been designated a high priority basin and is managed by the County of Napa Groundwater Sustainability Agency. A Groundwater Sustainability Plan was submitted on January 31, 2022, and is currently under review by the California Department of Water Resources.

3.11.1.6 Potentially Affected Groundwater Basins

Phase 1 would require approximately 300,000 gallons of water to produce drilling fluids and 100,000 gallons of water for pipe string hydrotesting. Phase 2 would require approximately 20,000 gallons of water for pigging and flushing pipelines. Total water use would be approximately 1.3 acre-feet. Project water demands would be met by local sources or trucked from an off-site supply. The source of this water has not yet been determined but may be obtained from an agricultural supply well or the city of Napa's water system. The city's water

supplies consist of local surface water (Lake Hennessey and Milliken Reservoir) and imported water from the State Water Project, which diverts water from the Sacramento-San Joaquin Delta and conveys it to Napa and Solano counties via the North Bay Aqueduct. Project water demands would be most likely met by groundwater from the Napa-Sonoma Lowlands Subbasin or from the city of Napa municipal water supply.

3.11.2 Regulatory Setting

Federal and state laws and regulations pertaining to hydrology and water quality and relevant to the Project are identified in Appendix A. Relevant regional and local permits and plans are discussed below.

Pursuant to the Porter-Cologne Act, the SFBRWQCB issues National Pollutant Discharge Elimination System (NPDES) permits for discharges to land or surface waters. The limitations placed on the discharge are designed to ensure compliance with water quality objectives in a Basin Plan. Construction activities that disturb one or more acres of land surface are regulated under the General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Order No. 2012-0006-DWQ). This general permit also covers construction activities associated with Linear Underground/Overhead Utility Projects such as installation of underground pipelines, trenching, excavation, boring and drilling, and stockpile/borrow locations. To obtain coverage under the Construction General Permit, the legally responsible person must file a Notice of Intent (NOI), Storm Water Pollution Prevention Plan (SWPPP), risk assessment, site map(s), and drawings.

Water discharges from natural gas utility construction, operations, and maintenance activities are regulated under Order WQ 2017-0029-DWQ (General Order No. CAG670001) which applies to hydrostatic testing of existing natural gas facilities; hydrostatic testing of new natural gas facilities; and site dewatering related to excavation, construction, testing, maintenance, and repair of natural gas facilities.

This Statewide General Order establishes effluent limitations for discharges to inland surface water, enclosed bays, estuaries, the Pacific Ocean, and to land. The effluent limitations address priority pollutants (including pesticides), metals, residual chlorine, total petroleum hydrocarbons, oil and grease, turbidity, pH, and dissolved oxygen. Effluent discharges cannot adversely impact beneficial uses of receiving waters as identified in the Water Quality Control Plan. This Order also requires implementation of a monitoring and reporting program

including effluent monitoring of discharges to surface waters and to land and receiving water monitoring if non-compliant discharges are identified during effluent monitoring.

3.11.3 Impact Analysis

Project-related discharges of sediment-laden stormwater, hydrotest water, and pipeline flush water may adversely affect water quality.

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less than Significant with Mitigation

Phase 1

The HDD operation has been designed to avoid inadvertent returns during drilling operations that could increase turbidity and degrade surface water quality. A risk analysis assessing the potential for drilling fluids to escape the borehole by inadvertent fracturing of surrounding earth materials was performed for the proposed alignment of the directional drill to assess risks associated with the Project's HDD activities and determine the best borehole path. These risks are addressed in the Project's Drilling Plan Program including drilling fluid pressure monitoring during HDD operations to detect any inadvertent drilling fluid migration outside the bore hole, and the use of an exit pit at the HDD exit location to provide a path of least resistance (Kleinfelder 2022). As discussed in **MM HAZ-3** (Hazards), an Inadvertent Release Contingency Plan would be submitted to the CSLC at least 30 days prior to the start of Phase 1 for review and approval and would be implemented during Phase 1 to address possible fluid migrations during the HDD that could impact water quality.

The replacement pipeline would be hydrostatically tested before and after pullback installation using freshwater from local wells or other sources. Hydrotest wastewater and groundwater removed from excavations would be disposed either by discharge to land, discharge to surface water, or discharge to the NapaSan's Wastewater Treatment Plant. Discharge to land or surface water would be performed in accordance with the Order WQ 2017-0029-DWQ. Any discharges to the NapaSan's Wastewater Treatment Plant would be conducted under a permit issued by NapaSan to ensure compliance with the District's NPDES permit for discharge of treated wastewater. In addition, Project design elements, such as low flow diffusers and protection along the creek and

riverbanks to reduce erosion, would ensure the land or surface water discharge would have less than significant impacts to surface water quality.

In addition, Phase 1 excavations and site preparation would require the disturbance of topsoil that could potentially cause indirect impacts to water quality through stormwater runoff or airborne dust.

To reduce impacts from potential inadvertent drilling fluid returns and ground disturbance to water quality, PG&E will implement **MM HYDRO-1** to manage potential pollution from stormwater and **MM HAZ-3** (Hazards), as discussed in Section 3.10, Hazards and Hazardous Materials. When these MMs are combined with implementation of proposed HDD methods and monitoring required by Order WQ 2017-0029-DWQ, impacts to surface or groundwater quality would be reduced to less than significant.

> **MM HYDRO-1: Stormwater Pollution Prevention Plan**. PG&E or their contractor shall develop and implement a Stormwater Pollution Prevention Plan (SWPPP) consistent with the Statewide NPDES Construction General Permit (Order No. 2012-0006-DWQ). At a minimum, the SWPPP shall include measures for:
>
> - Maintaining adequate soil moisture to prevent excessive fugitive dust emissions, preservation of existing vegetation, and effective soil cover (e.g., geotextiles, straw mulch, hydroseeding) for inactive areas and finished slopes to prevent sediments from being dislodged by wind, rain, or flowing water.
> - Installing fiber rolls and sediment basins to capture and remove particles that have already been dislodged.
> - Establishing good housekeeping measures such as construction vehicle storage and maintenance, handling procedures for hazardous materials, and waste management BMPs, including procedural and structural measures to prevent the release of wastes and materials used at the site.
>
> The SWPPP shall also detail spill prevention and control measures to identify the proper storage and handling techniques of fuels and lubricants, and the procedures to follow in the event of a spill. The SWPPP shall be provided to CSLC staff for review a minimum of 30 days prior to Project implementation.

Phase 2

The decommissioning and removal of segments of the gas pipeline crossing as currently proposed would require underwater excavation using a Toyo pump to

expose segments of pipeline. This method precisely and accurately exposes submarine pipelines to allow for efficient lifting by a crane through the River sediment to retrieve the pipeline from the riverbed. As the pipeline is lifted vertically, sediment would slough off the pipeline and promote immediate and natural backfill with native Napa River sediment. The remaining hole would be allowed to collapse, further promoting this natural backfill. As river sediment is disturbed, the concentration of local contaminants and water-born sediment may increase within the water column. Underwater excavation with a Toyo pump would increase turbidity and may mobilize these particles which would migrate downstream with river flows and upstream and downstream with tidal action. This has the potential to significantly affect surface water quality and clarity.

Implementation of **MM BIO-10** (Biological Resources), which incorporates the use of a Turbidity Monitoring Plan, would provide corrective measures to reestablish compliance with water quality objectives if an exceedance of the allowable threshold occurs. If an increase in turbidity that exceeds the allowable thresholds is recorded by surface water sampling during in-water work, downstream turbidity levels would be compared with upstream turbidity levels to determine if the increase is a natural shift in turbidity in the waterway unrelated to Project activities. If a similar shift in turbidity levels is recorded in both directions, it would be assumed that this is a natural shift in background turbidity. If there is an increase in downstream turbidity levels over upstream turbidity levels, the increase would be assumed to be related to Project activities and turbidity would be monitored closely to ensure that the increase does not exceed the allowable thresholds for increased turbidity. If an increase of turbidity exceeds the allowable thresholds downstream of the in-water excavation, work activities would be stopped, and additional corrective measures would be implemented.

Corrective measures for turbidity levels exceeding the allowable threshold are outlined in **MM BIO-10** (Biological Resources) and may include the use of a turbidity curtain or other sediment control devices if feasible considering site conditions at the time of construction, alteration to the timing and duration of in-water work and excavation activities, or minor modifications in construction methodology that result in a reduction of in-water excavation. The turbidity curtain would provide a more immediate settlement of suspended sediment and minimize the amount of particle and contaminant transfer downstream. If turbidity levels exceed the allowable thresholds, turbidity levels would be monitored at a higher frequency at the downstream sampling location until they

return to the baseline condition, at which time in-water work would be allowed to proceed and turbidity monitoring would continue to ensure compliance with water quality objectives once the corrective measures are in place.

With the implementation of **MM BIO-10, MM HAZ-3**, and **MM HYDRO-1**, impacts to hydrology and water quality would be reduced to less than significant.

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

Less than Significant Impact

Water used for hydrostatic testing, HDD fluids, and pipe flushing would likely be provided from groundwater resources of the Napa-Sonoma Lowlands Subbasin or city water which is supplied by the State Water Project and local surface waters. Project water demands are unlikely to be met by groundwater from the Napa Valley Subbasin, which is managed by the County of Napa Groundwater Sustainability Agency. In the event Project water demands are met from the Napa Valley Subbasin, the proposed 1.3-acre-foot total Project water demand would represent a one-time use of approximately 0.008 percent of the annual groundwater usage of this Subbasin (16,840 acre-feet per year). Therefore, Project-related water use would represent a less than significant impact to local groundwater supplies. Such water use would not hinder sustainable groundwater management of any groundwater basin.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would:

i) Result in substantial erosion or siltation on or off site;

Less than Significant with Mitigation

Phases 1 and 2 would not alter the drainage pattern of the River, Suscol Creek, or any other drainage. Stormwater run-off from Project work areas may result in short-term erosion and siltation which would be reduced by implementation of a SWPPP during both Project phases, as required by **MM HYDRO-1**. Erosion and siltation caused by pipeline removal during Phase 2 would be further minimized by the proposed restoration of vegetation removed by the Project, as required by **MM BIO-11** (Biological Resources), and adherence to regulatory permit

conditions. With the inclusion of **MM HYDRO-1** and **MM BIO-11**, the impact would be less than significant.

The proposed removal of the existing pipeline from the riverbed would eliminate a potential long-term hazard should the pipeline become exposed in the future due to dredging or scour during high flow events. Pipeline exposure in the riverbed has the potential to create "debris traps" along exposed areas of the pipeline that could result in accelerated erosion of the riverbed or banks. Removal of the pipelines through the River during Phase 2 would have long term benefits to the riverbed by eliminating the potential debris traps. Complete pipeline removal through the riverbed and adherence to the methods and measures described in this document would reduce impacts to the River during Phase 2 of the Project to less than significant.

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

No Impact

The Project does not involve any new impervious surfaces or drainage features that could alter the rate or amount of storm runoff. Therefore, there would be no impact.

iii) 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; or

No Impact

The Project does not involve any new impervious surfaces or drainage features that could alter the rate or amount of storm runoff. All Project components would be buried (except pipeline markers) and would not contribute any pollutants to storm runoff in the Project area. Therefore, there would have no impact on any existing or planned drainage systems.

iv) Impede or redirect flood flows?

Less than Significant Impact

<u>Phase 1</u>

Although the Project area is located within a flood hazard area, all Project components installed during Phase 1 would be buried (except pipeline markers) and would not impede or redirect flood flows. Therefore, there would be no impact.

Phase 2

The proposed Project would not substantially affect the riverbanks as a result of the proposed pipeline removal during Phase 2. Removal of Segment 2 would involve excavation of the banks and temporary construction disturbance that could increase potential flood risk. To minimize flood risk, excavation of the riverbanks would not occur during flood season. After decommissioning and removal activities are complete, the riverbank disturbance areas would be restored to pre-project grade and contours. Complete removal of the pipeline from the riverbanks would improve bank integrity at this location; therefore, the impact to flood facilities or increased risk of flooding would be less than significant.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact

Although the Project area is located within a flood hazard area, all Project components would be buried (except pipeline markers) and would not release pollutants during flooding events. The Project area is not located within Tsunami Inundation Hazard Zone or subject to seiches. Therefore, there would be no impact.

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

No Impact

The Project may include discharge of hydrostatic testing water or pipeline flush water to the River or Suscol Creek, which could exceed the water quality objectives of the San Francisco Bay Area Water Quality Control Plan. However, this water would be tested and treated as needed to ensure it complies with the waste discharge requirements of Order WQ 2017-0029-DWQ which are protective of beneficial uses. Additionally, turbidity monitoring during discharge activities would ensure that discharge to surface waters does not exceed water quality objectives for turbidity. Therefore, such discharge is not anticipated to

conflict with the San Francisco Bay Area Water Quality Control Plan, and there would be no impact.

The Project area is located within both the Napa-Sonoma Lowlands Subbasin and the Napa Valley Subbasin. The Project water demand is unlikely to be met by groundwater from the Napa Valley Subbasin which has a groundwater management plan under review by the California Department of Water Resources. Due to the relatively small and temporary nature of Project water demands, the Project would not conflict with or obstruct groundwater management in the area. Thus, there would be no impact.

3.11.4 Mitigation Summary

Implementation of the following MMs would reduce the potential for Project-related impacts to Hydrology and Water Quality to less than significant.

MM HYDRO-1: Stormwater Pollution Prevention Plan
MM BIO-10: Turbidity Monitoring Plan
MM BIO-11: Site Restoration Plan
MM HAZ-3: Inadvertent Release Contingency Plan

3.12 LAND USE AND PLANNING

LAND USE AND PLANNING – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☒	☐	☐

3.12.1 Environmental Setting

The eastern bank and River Project area is located within Napa County and the western Project area is in the city of Napa. According to the Napa County General Plan, the land use designation within the Project area is for Cities and Public-Institutional uses (Napa County 2008). The West Work Area is zoned for Agricultural Resource purposes according to the city of Napa Zoning Base Districts Map (City of Napa 2018). Existing land uses within the Project area include CDFW Napa-Sonoma Marshes Wildlife Area on the west side of the River and irrigated pastureland adjacent to the NapaSan facilities on the east side of the River.

3.12.2 Regulatory Setting

There are no major Federal laws, regulations, or policies applicable to the Project regarding land use and planning. State laws and regulations pertaining to land use and planning and relevant to the Project are identified in Appendix A. There are no policies in the Napa-Sonoma Wildlife Area Land Management Plan relevant to the Project because the Project involves maintenance activities within existing PG&E easements in the Napa-Sonoma wildlife area. At the local level, policies and programs are identified in Appendix B.

3.12.3 Impact Analysis

The Project would require temporary construction including the use of large cranes adjacent to the outer boundaries of the designated Napa County

Airport industrial area and within compatibility areas "C/D" as identified within the Napa County Airport Master Plan, which is an area subject to noticing requirements outlined in 14 CFR Part 77 (Objects Affecting Navigable Airspace).

a) Physically divide an established community?

No Impact

The Project area is located in pastureland within an area designated for city and Public-Institutional use. The Project does not involve any new structures or roadways and would not divide any community. The replacement pipeline corridor is located within open space, the shoulders of existing roadways, and generally parallels the existing crossing over the River. Therefore, there would be 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?

Less than Significant with Mitigation

The Project includes pipeline replacement activities. Although there are a number of local policies pertaining to agriculture (Appendix B), the new permanent pipeline easement along the buried replacement pipeline alignment would not result in any change in land use or conflict with existing agricultural activities or any land use plan or policy.

Pastureland within the eastern Project area is irrigated by wastewater effluent from the adjacent water treatment plant. However, the Project would not affect the irrigation system or cycle and would not conflict with the NapaSan Strategic Plan for Recycled Water Use (NapaSan 2005).

As discussed in Section 3.10, Hazards and Hazardous Materials, the Project area is located within airport compatibility areas "C/D," and west of the airport approach zones identified within the Napa County Airport Master Plan (County of Napa 2007) and Airport Land Use Compatibility Plan (Shutt Moen Associates 1999).

The Project would require temporary construction including the use of large cranes adjacent to the outer boundaries of the designated Napa County Airport industrial area and within compatibility areas "C/D." These temporary land uses are subject to noticing requirements outlined in 14 CFR Part 77

(Objects Affecting Navigable Airspace), which specifies that Federal Aviation Administration (FAA) notification of proposed construction is required for any construction within 10,000 feet of a public use or military airport. Inclusion of **MM HAZ-5** (Hazards) would mitigate the potential for impacts from working adjacent to the Napa County Airport area to less than significant by complying with noticing requirements set forth in these plans.

3.12.4 Mitigation Summary

Implementation of the following MM would reduce the potential for Project-related impacts related to Land Use and Planning to less than significant.

MM HAZ-5: Notifications to Airport Regulatory Agencies Prior to Initiation of Work Activities

3.13 MINERAL RESOURCES

MINERAL RESOURCES – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**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?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

3.13.1 Environmental Setting

Mineral Resource Zone (MRZ) maps do not cover most of Napa County including the Project area (CDC 2013). Consequently, the Project area is located within MRZ-4, which is described as an area in which available information is inadequate for assignment to any other MRZ category (CDC 2013). The nearest area underlain by mineral deposits that geologic data indicate to be significant, containing known economic mineral deposits (MRZ-2) is the Napa Quarry, located approximately 1.8 miles north of the East Work Area.

According to the California Department of Conservation, Office of Mine Reclamation, there are three active mines within the County: Napa Quarry, Pope Creek Quarry, and American Canyon Quarry. Napa Quarry is the only significant mine of the three active mines within the County. The Napa Quarry generates approximately 1.3 million tons of basalt rock each year for use as concrete aggregate and aggregate related materials (Napa County 2014). According to the California Department of Conservation, Geologic Energy Management Division's online Well Finder, there are no active or idle wells near the Project area (CalGEM 2022).

3.13.2 Regulatory Setting

There are no major federal laws, regulations, or policies applicable to the Project regarding mineral resources. State laws and regulations pertaining to mineral resources and relevant to the Project are identified in Appendix A. Since the

Project does not involve a change in mineral resources, local goals, policies or regulations are not applicable.

3.13.3 Impact Analysis

The Project would have no impact on mineral resources within the area.

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact (a and b)

There are no mineral resource recovery sites or known mineral resources in or near the Project area. Project activities would not hinder access or otherwise result in the loss of availability of known or inferred mineral resources; therefore, there would be no impact.

3.13.4 Mitigation Summary

The Project would have no impact on Mineral Resources; no mitigation is required.

3.14 NOISE

NOISE – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Generate excessive ground-borne vibration or ground-borne noise levels?	☐	☐	☒	☐
c) Be 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 and expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

3.14.1 Environmental Setting

3.14.1.1 Basis of Environmental Acoustics and Vibration

Sound is the mechanical energy from a vibrating object that is transmitted by pressure waves through a liquid or gaseous medium (e.g., air). Noise is defined as unwanted sound (i.e., loud, unexpected, or annoying). Acoustics is the physics of sound. A sound source generates pressure waves, the amplitude of which determines the source's perceived loudness. Sound pressure level is described in terms of decibel (dB), with near-total silence for human hearing corresponding to 0 dB. When two sources at the same location each produce the same pressure waves, the resulting sound level at a given distance from that location is approximately 3 dB higher than the sound level produced by only one source. For example, if one automobile produces a 70 dB sound pressure level when it passes an observer, two cars passing simultaneously do not produce 140 dB; rather, they combine to produce 73 dB.

The perception of loudness can be approximated by filtering frequencies using the standardized A-weighting network. The "A-weighted" noise level de-emphasizes low and very high frequencies of sound in a manner similar to the human ear's de-emphasis of these frequencies. There is a strong correlation between A-weighted sound levels (expressed as dBA) and community response to noise. All noise levels reported in this section are in terms of A-weighting.

In typical noisy environments, noise-level changes of 1 to 2 dB are generally not perceptible by the healthy human ear. However, people can begin to detect 3 dB increases in noise levels, with a 5 dB increase generally perceived as distinctly noticeable and a 10 dB increase generally perceived as doubling the loudness. Four sound level descriptors are commonly used in environmental noise analysis:

- Equivalent sound level (L_{eq}): The L_{eq} is the average sound level that contains the same acoustical energy as the time-varying sound that actually occurs during that period
- Maximum sound level (L_{max}): The highest instantaneous sound level measured during a specified period
- Day-night average level (L_{dn}): The energy average of A-weighted sound levels occurring over a 24-hour period, with a 10 dB penalty applied to A-weighted sound levels occurring during nighttime hours (10:00 p.m. to 7:00 a.m.)
- Community noise equivalent level (CNEL): Similar to L_{dn}, CNEL is the energy-average of the A-weighted sound levels occurring over a 24-hour period, with a 10 dB penalty applied to A-weighted sound levels occurring during the nighttime hours (10:00 p.m. to 7:00 a.m.) plus a 5 dB penalty applied to the A-weighted sound levels occurring during evening hours (7:00 p.m. to 10:00 p.m.). The CNEL is usually within one dB of the L_{dn}

Sound from a localized source (i.e., point source) propagates uniformly outward in a spherical pattern, and the sound level attenuates (decreases) at a rate of 6 dB each time the distance doubles from a point or stationary source. Roadways, highways, and moving trains (to some extent) consist of several localized noise sources on a defined path; these are treated as "line" sources, which approximate the effect of several point sources. Sound levels attenuate at a rate of 3 dB for each time the distance doubles from a line source. Therefore, noise from a line source decreases less with distance than noise from a point source. To limit population exposure to physically or psychologically significant noise levels, the state and various local cities and counties in the state have

established guidelines and ordinances to control noise as discussed in the Regulatory Setting subsection below.

3.14.1.2 Ground-borne Vibration

In contrast to airborne noise, ground-borne vibration is not a common environmental problem. Vibration from sources such as buses and trucks are not usually perceptible, even in locations close to major roads. Some common sources of ground-borne vibration are trains, buses on rough roads, and construction activities such as blasting, pile-driving, and operating heavy earth-moving equipment.

Ground-borne vibration can cause detectable building floor movement, window rattling, items shaking on shelves or walls, and rumbling sounds. In extreme cases, the vibration can cause damage to buildings. Building damage is not a factor for most projects, with the occasional exception of blasting and pile-driving during construction. Human annoyance from vibration can often occur and can happen when the vibration exceeds the threshold of perception by only a small margin. A vibration level that causes annoyance would be well below the damage threshold for normal buildings.

Vibration is an oscillatory motion which can be described in terms of displacement, velocity, or acceleration. Displacement is the easiest descriptor to understand. For a vibrating floor, the displacement is simply the distance that a point on the floor moves away from its static position. The velocity represents the instantaneous speed of the floor movement and acceleration is the rate of change of the speed. The peak particle velocity (PPV) is defined as the maximum instantaneous positive or negative peak of the vibration signal. PPV is often used in monitoring of blasting vibration since it is related to the stresses that buildings undergo.

3.14.1.3 Local Noise Environment

The noise environment of the Project area is dominated by traffic noise on the adjacent State Route 12, with contributions of aircraft noise from the Napa County Airport, wastewater processing noise from the NapaSan Treatment Plant, and occasional use of the railroad tracks along the Napa River by the Napa Valley Wine Train. Based on data provided in the Napa County General Plan, projected traffic noise generated by State Route 12 would be 73 dBA L_{dn} at 100 feet from the roadway centerline (Napa County 2008).

The Napa County Airport is located approximately 4,500 feet south of the East Work Area. Based on noise contours provided in the Napa County General Plan, which were modeled out to 2022, the 55 dBA CNEL noise contour is located 0.4-mile from the East Work Area (Napa County 2008). Therefore, since the Project site is outside the contour, airport-related noise at the Project site is expected to be less than 55 dBA CNEL and a minor component of the local noise environment.

3.14.2 Regulatory Setting

Federal and state laws and regulations pertaining to noise and relevant to the Project are identified in Appendix A. The western portion of the Project site (west of the Napa River, including the West Work Area and Pipe Staging Area) is in the city of Napa, while the eastern portion of the Project site is located within Napa County. Noise policies and standards of these two jurisdictions are provided in Appendix B. Applicable noise thresholds within these two jurisdictions are provided below.

3.14.2.1 City of Napa

The city of Napa considers noise sensitive land uses as residences, religious facilities, schools, childcare centers, hospitals, long-term health care facilities, convalescent centers, and retirement homes.

The city's residential noise standards for non-transportation sources and for transportation sources for residential land uses are specific to new land use projects. Because the Project is a temporary construction and decommissioning, with no new land uses proposed, these noise standards do not apply to the Project.

Construction activities are regulated under the city's noise control regulation (Chapter 8.08 of the Municipal Code, City of Napa 2022c) which limits these activities to 7 a.m. to 7 p.m. Monday through Friday and 8 a.m. to 4 p.m. on weekends or legal holidays, with the following restrictions:

- No startup of machines or equipment or equipment prior to 8 a.m.
- No delivery of materials or equipment prior to 7:30 a.m.
- No cleaning of machines or equipment past 6 p.m.
- No servicing of equipment past 6:45 p.m.

The city Manager may grant a permit to allow construction activities outside these time-of-day restrictions if noise would not be offensive to neighbors as to constitute a nuisance.

3.14.2.2 Napa County

The County's noise control regulations (Section 8.16 of the Municipal Code) identify exterior noise limits for residential, commercial, and industrial land uses. Table 8.16.080 of the Municipal Code identifies noise limits for construction activities, including 75 dBA L_{eq} from 7 a.m. to 7 p.m. and 60 dBA L_{eq} from 7 p.m. to 7 a.m.

3.14.3 Impact Analysis

Project-related noise generation may adversely affect noise-sensitive land uses (residences) near the Project site. Noise impacts related to biological resources are discussed in Section 3.4.3.

a) Generate 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 with Mitigation

Phase 1

The Federal Highway Administration's Roadway Construction Noise Model was used to estimate peak hour noise (L_{eq}) generated at the nearest noise-sensitive land use (residence east of the Migration Winery). For work in the city of Napa's jurisdiction, Phase 1 pipe string welding was modeled due to the large amount of equipment and proximity to residences. For work within the County jurisdiction, HDD operations were modeled due to the large amount of equipment. The results of the noise modeling for work in the Napa city limits and the Napa County limits are presented in Table 3.14-1. Model input and output data are provided in Appendix G. The County's noise limits would not be exceeded, and impacts would be less than significant within Napa County jurisdiction. No new long-term noise sources would be created nor would existing noise levels be exacerbated. Therefore, no long-term noise impacts would result.

Table 3.14-1. Construction Noise Modeling Results

Jurisdiction	Noise Threshold	Project Activity	Closest Equipment to Nearest Residence (feet)	Estimated Peak Hour Noise Level (dBA Leq)
City of Napa	Time of day restrictions	Pipe string welding	250	66.9
Napa County	75 dBA L_{eq} from 7 a.m. to 7 p.m. and 60 dBA L_{eq} from 7 p.m. to 7 a.m.	HDD operations	3350	47.6

Phase 1 pipe string pull back construction activities on the west side of the River in the city's jurisdiction may not fully comply with the time-of-day restrictions of the city's noise control regulation. **MM NOI-1** would reduce impacts to less than significant by requiring the Project to receive a city permit or approval to allow work outside the restricted hours.

> **MM NOI-1: Work Hours**. Work involving noise-generating equipment shall be conducted during the hours of 7:00 a.m. to 7:00 p.m. on weekdays and 8:00 a.m. to 4:00 p.m. on weekends or legal holidays. Work involving noise-generating equipment in the city of Napa outside of the time-of-day work restrictions shall be prohibited unless permission is granted in advance by city of Napa.

Phase 2

Phase 2 Project activities would be located greater than 500 feet from any residence and Project-related noise is anticipated to be near ambient conditions and not detectable from the nearest residence. The County's noise limits would not be exceeded and work would be scheduled with the city's time-of-day restrictions; therefore, impacts would be less than significant.

b) Generate excessive ground-borne vibration or ground-borne noise levels?

Less than Significant Impact

Methodology provided in the California Department of Transportation (Caltrans) Transportation and Construction Vibration Guidance Manual (2013) was used to estimate ground borne vibration at the nearest potentially occupied structure which is a winery building located approximately 130 feet south of the Pipe

Staging Area. The estimated vibration level at this building is 0.010 PPV (based on a pipelayer operating 130 feet away) which would be barely perceptible and less than required to damage the most fragile building. Therefore, construction-generated vibration is considered a less than significant impact.

c) Be 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 and expose people residing or working in the project area to excessive noise levels?

No Impact

The nearest private airstrip or public airport (Napa County Airport) is located approximately 1 mile south of the East Work Area. The Project would not include any new land uses or otherwise increase the number of persons exposed to existing aircraft noise; therefore, there would be no impact.

3.14.4 Mitigation Summary

Implementation of the following MM would reduce the potential for Project-related impacts related to Noise to less than significant.

MM NOI-1: Work Hours

3.15 POPULATION AND HOUSING

POPULATION AND HOUSING – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

3.15.1 Environmental Setting

According to the United States Census, Napa County had a population of 138,019 in 2020. (U.S. Census Bureau 2022b). This number includes the population of the city of Napa.

3.15.2 Regulatory Setting

No federal, state, or local laws relevant to population and housing are applicable to the Project. Since the Project does not involve a change in land use, local goals, policies, or regulations are not applicable.

3.15.3 Impact Analysis

The Project would have no impact on population and housing.

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

No Impact

The Project consists of the installation of a new natural gas pipeline and decommissioning of the existing pipeline in an area zoned for city and Public-Institutional uses in the eastern work area, as well as zoned by the city of Napa

for Agricultural Resource purposes in the West Work Area. The Project does not include components that would directly induce population growth. The Project would not indirectly extend the opportunity for population growth by extending natural gas service into new areas, as the Project consists of a replacement of an existing service line. Therefore, the Project would have no impact.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No Impact

The Project would occur in a non-urbanized area just south of the State Highway 12 bridge and across the River and would not displace any housing or create a long-term demand for housing. Although construction workers from the existing local workforce would be utilized to the extent feasible, construction workers and other field personnel involved with the Project may slightly increase the demand for temporary housing (hotels or rental housing). The Project would not displace substantial numbers of existing housing or generate the need for new permanent housing. Therefore, the Project would have no impact.

3.15.4 Mitigation Summary

The Project would not result in significant impacts on Population and Housing; no mitigation is required.

3.16 PUBLIC SERVICES

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

3.16.1 Environmental Setting

The Project area is located within Napa County and the West Work Area is within the limits of the city of Napa. Public services within both the city of Napa and Napa County are described below.

3.16.1.1 Fire Protection

The Project area is located within grazed pastureland along the Napa and Suscol Rivers. The vicinity surrounding the Project area is categorized as a Local Responsibility Area (LRA). Fire risk is not recorded in this area on the California Department of Forestry (CAL FIRE) Fire Hazard Severity Zone Mapper; however, as a result of the generally high soil moisture content surrounding the River and Suscol Creek, a lower fire risk is assumed in comparison to the surrounding region.

CAL FIRE is contracted by Napa County to provide fire protection through the Napa County Fire Department. Fire protection is provided by five full-time paid stations in addition to nine volunteer fire companies (Napa County 2022b). The nearest fire protection station to the Project area is the Napa County Fire Department Station 27, located approximately 1.9 miles southeast of the Project area.

Within the city of Napa, fire protection is provided by the city of Napa Fire Department (NFD). Services provided by the NFD include fire suppression, fire protection, community outreach and education, emergency medical and rescue services, and response to incidents involving hazardous materials (City of Napa 2022a). There are five stations associated with NFD that are located throughout the city. The closest station to the Project area is Fire Station Number 4, located approximately 2.8 miles north of the East Work Area.

3.16.1.2 Police Protection

Law enforcement within Napa County is provided by the Napa County Sheriff's Department (Napa County 2022c). The Napa County Sheriff's Department has four substations throughout the County including Angwin, the city of Napa, Lake Berryessa, and Yountville. The Napa County Sheriff's Department provides specialized law enforcement services to Napa County and local police protection to the unincorporated areas of the County, including the Project area.

Within the city of Napa, the city of Napa Police Department provides services such as general law enforcement, traffic enforcement, investigations, and routine support services such as communications, evidence collection, analysis and preservation, training, administration, and record keeping (City of Napa 2022a).

3.16.1.3 Schools

There are two nearest schools located equidistant to the Project area. McGrath School is located at 2100 Napa Vallejo Hwy in Napa and is located approximately 2.5 miles northeast of the East Work Area. Irene M. Snow Elementary School is located at 1130 Foster Road in Napa and is located approximately 2.5 miles northwest of the Pipe Staging Area.

3.16.1.4 Parks

The nearest park to the Project area is Kennedy Park located in the city of Napa, approximately 1.45 miles north of the Project area. Napa Golf Course is the nearest golf course located approximately 1.30 miles north of the East Work Area. Parks and recreation within Napa County include several scenic trails, bikeways, regional trails, and facilities (Napa County 2008). There are two public walking and hiking trails located adjacent to the Project area. The San Francisco Bay Trail is located south of Stanly Lane and runs perpendicular to the Pipe Staging Area, but on the opposite side of the street. Public access on the San Francisco Bay Trail ends at Ranch Road and does not extend through the West Work Area. The Napa River Trailhead is located along Soscol Ferry Road, north of the East Work Area, and the trail is routed north along the Napa River parallel to the railroad tracks. Neither the San Francisco Bay Trail nor the Napa River Trail occur within the Project area.

3.16.2 Regulatory Setting

Federal and state laws and regulations pertaining to public service and relevant to the Project are identified in Appendix A. At the local level, policies and programs are identified in Appendix B.

3.16.3 Impact Analysis

During Project implementation, the public access to nearby trails may be temporarily blocked off as a proactive safety measure to separate the public from construction related activity.

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

Fire protection?

Police Protection?

Schools?

Parks?

Other public facilities?

No Impact

The Project involves short-term pipeline installation and decommissioning and does not involve the construction of any residences, buildings, or other land uses requiring public services. The Project would not generate a need for any new government facilities or public services while or after proposed activities are completed. Therefore, there would be no impact.

3.16.4 Mitigation Summary

The Project would have no impact on Public Services; no mitigation is required.

3.17 RECREATION

RECREATION	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒
c) Would the project interfere with existing use of offshore recreational boating opportunities?[11]	☐	☒	☐	☐

3.17.1 Environmental Setting

Recreational opportunities within the city of Napa and the region surrounding the Project area in Napa County include hiking, wine tasting, golf, and boating. The San Francisco Bay Trail is located south of Stanly Lane and runs perpendicular to the Pipe Staging Area, but on the opposite side of the street. Public access on the San Francisco Bay Trail ends at Ranch Road and does not extend through the West Work Area. A short segment of the Napa River Trail is located immediately north of the East Work Area. The segment is approximately 0.5 mile and is lightly trafficked. The Cutting Wharf Boat launch is the nearest recreational boat launch to the Project area and is located approximately 1.6 miles downstream and includes two L-shaped loading docks.

[11]The CSLC has chosen to analyze this impact in addition to the impact analyses set forth in CEQA Guidelines Appendix G. Though use of the Appendix G checklist meets the requirements for an initial study, "public agencies are free to devise their own format." (State CEQA Guidelines § 15063, subd. (f).)

As noted in Section 3.16, Public Services, the nearest park to the Project area is Kennedy Park in the city of Napa and is a public space featuring softball fields, two sand volleyball courts, picnic sites, and a formal garden.

Navigable waterways in the region like the River are publicly accessible and contribute to recreational opportunities within the region. The upper sections of the River from St. Helena to Napa are regularly used for whitewater kayaking and rafting, whereas the lower sections of the River from Napa to San Pablo Bay have flatwater and are more suitable for canoeing, sea kayaking and motorboating.

3.17.2 Regulatory Setting

No federal or state laws and regulations relevant to recreation are applicable to the Project. At the local level, policies and programs are identified in Appendix B.

3.17.3 Impact Analysis

The Project would temporarily occur within a reach of the River which supports recreational boating and could affect boating access.

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

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact (a and b)

The Project would not result in population growth in the area or otherwise result in the increased use of existing recreational facilities. The Project does not include any recreational facilities and would not require the construction or expansion of recreational facilities or restrict use of existing recreational facilities. Therefore, there would be no impact.

c) Would the project interfere with existing use of offshore recreational boating opportunities?

Less than Significant with Mitigation

Phase 1

Phase 1 does not include any in-water work and would not interfere with recreational boating or other River-based recreational opportunities; therefore, there would be no impact.

Phase 2

Phase 2 is currently planned to occur August through October of 2024. All Project activities within the River would occur within the seasonal aquatic work window that occurs from August 1 through October 31, 2024, for protection of listed fish species. Construction activity would take place Monday through Friday for approximately 10 hours each day. Longer shifts or additional shifts may occur, if necessary, to complete the Project within the defined seasonal constraints. The presence and operation of the derrick barge crane and other Project vessels required for pipeline removal within the River may temporarily limit access to recreational activities on the River within the Project area and raise safety concerns for recreational boaters. Such restricted access would be short-term and would not limit access to other surrounding recreational areas.

To reduce impacts to recreational boaters on the River, PG&E will implement **MM REC-1** and **MM REC-2** requiring pre-Project notifications and warning signs to reduce this potential impact to less than significant.

> **MM REC-1: Riverine Safety Measures.** Prior to in-water activity, PG&E or its designated contractor shall post information at all local marinas and launch facilities concerning Project work locations, times, and other details of activities that may pose hazards to recreational boaters. At all times while Project activities are taking place in the River, warning signs and buoys shall be installed upstream and downstream of the work site to provide notice to the public that Project activities are taking place and to exercise caution.

MM REC-2: Local Notice to Mariners. PG&E or its marine contractor should prepare a Local Notice to Mariners which describes all in-water activities to be submitted to the U.S. Coast Guard at least 15 days prior to Phase 2 activities. The Notice shall include:

- Type of operation (i.e., dredging, diving operations, construction).
- Location of operation, including latitude and longitude and geographical position, if applicable.
- Duration of operation, including start and completion dates (if these dates change, the U.S. Coast Guard needs to be notified).
- Vessels involved in the operation.
- VHF-FM radio frequencies monitored by vessels on the scene.
- Point of contact and 24-hour phone number.
- Chart Number for the area of operation.

3.17.4 Mitigation Summary

Implementation of the following MMs would reduce the potential for Project-related impacts on Recreation to less than significant.

MM REC-1: Riverine Safety Measures
MM REC-2: Local Notice to Mariners

3.18 TRANSPORTATION

TRANSPORTATION – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**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?	☐	☐	☐	☒
b) Conflict or be inconsistent with State CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d) Result in inadequate emergency access?	☐	☒	☐	☐

3.18.1 Environmental Setting

The Project area is located immediately south of the State Highway 12 bridge over the River. Access to the Project area would be primarily via State Highway 12 and other existing roads in the Project vicinity. Access to the West Work Area would be provided by Stanly Lane and Ranch Road, as well as temporary access roads within the open space in grazed pastureland. Within the East Work Area, access would be provided by Soscol Ferry Road and an unnamed dirt road that are located on NapaSan property.

The County lacks the population densities that would support significant transit investments (Napa County 2008). As a result, most of Napa County's population commutes to work by automobile, either riding alone or carpooling (Napa County 2008). State Highway 12 is a major state highway that bisects Napa County and crosses the River approximately 600 feet north of the Project area. State Highway 12 is typically two lanes with portions built on top of levees including those within the Project vicinity. State Highway 12 provides emergency access for the local area. There are sections of State Highway 12 that are scenic corridors, including the section north of the Project area. On the west, the scenic

route begins at the State Highway 12 and State Highway 29 junction and continues along the east side of the River to the north and south.

Based on annual traffic counts conducted by Caltrans, the 2020 peak hour traffic volume on State Highway 12 at the State Highway 29 junction, approximately 0.7 miles north of the Project area was 3,000 vehicles, and 4,000 vehicles at the State Highway 12 junction with Kelly Road approximately 1.7 miles southeast of the Project area (Caltrans 2020a).

In 2020, the average annual daily truck volume on State Highway 12 at the State Highway 29 junction was 2,345 trucks, which is 7.95 percent of the annual average daily traffic count of 29,500 total vehicles (Caltrans 2020b). In 2020, the average annual daily truck volume on State Highway 12 at the Kelly Road junction (approximately 1.6 miles east of the Project area) was 2,811 trucks, which is 7.70 percent of the annual average daily traffic count of 36,500 total vehicles (Caltrans 2020a).

The Napa Valley Railroad tracks pass over the HDD bore alignment through the Project area on the east side of the River. The bore hole will be drilled approximately 76 feet below the railroad tracks. Within Napa County, rail transportation is limited to commercial and freight services and there is currently no commuter rail service that exists within the County (Napa County 2008).

The Mare Island Naval Shipyard as well as industrial and commercial ports are located at the Napa River confluence with San Pablo Bay approximately 13 river miles downstream of the Project area.

3.18.2 Regulatory Setting

Federal and state laws and regulations pertaining to transportation and relevant to the Project are identified in Appendix A. At the local level, policies and programs are identified in Appendix B.

3.18.3 Impact Analysis

Project-related equipment would temporarily obstruct private roads within the Project area and would result in new, but temporary, vehicle trips on State Highway 12 within Napa County.

a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

No Impact

The Project does not involve any new or modified land uses that may generate long-term vehicle trips or other features that may affect the local or regional circulation system. Therefore, there would be no impact.

b) Conflict or be inconsistent with State CEQA Guidelines section 15064.3, subdivision (b)?

Less than Significant Impact

CEQA Guidelines section 15064.3(b) indicates that Vehicle Miles Traveled (VMT) is the most appropriate measure for assessing transportation impacts. In December 2018, the Office of Planning and Research (OPR) provided an updated Technical Advisory to provide guidance regarding the evaluation of transportation impacts under CEQA. In particular, the Technical Advisory provides a small project screening threshold that indicates a project generating or attracting fewer than 110 one-way trips per day generally may be assumed to cause a less than significant transportation impact (OPR 2018).

The Project would result in new (but temporary) vehicle trips on State Highway 12 within Napa County. The maximum number of Project-related one-way vehicle trips for deliveries and pickups is anticipated to be 114 total trips during Phase 1 and 350 total trips during Phase 2 of the Project. However, these truck trips would span multiple days throughout Project construction and would remain below the threshold of 110 one-way trips per day as determined by the Office of Planning and Research. Therefore, Project-related vehicle trips would represent a small percentage of existing trips on State Route 12. There are no thresholds defined for level of service (LOS) within the 2021 Napa Valley Countywide Transportation Plan. The temporary nature of Project and total number of truck trips remaining below the threshold identified in the OPR Technical Advisory, would ensure that Project impacts to transportation would be less than significant.

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 Project would not involve any roadway modifications or incompatible uses and would not increase traffic hazards. Therefore, no impact would result.

d) Result in inadequate emergency access?

Less than Significant with Mitigation

Phase 1

During Phase 1 of the Project, Soscol Ferry Road and existing unnamed dirt roads on the NapaSan property would be utilized within the East Work Area to the extent shown in Figure 2-1. Activities within the East Work Area would include excavation, drill rig operations, and pipe ramming activities. During pipe ramming activities, closure of the unnamed road that crosses Suscol Creek may be warranted for the safety of non-Project vehicles.

The Pipe Staging Area would temporarily cross Stanly Lane approximately 550 feet from the end of the paved roadway into the West Work Area during pipeline pullback. Stanly Lane is a public street and is utilized for personnel and visitors associated with Migration Winery and the two residences located east of Migration Winery property. As discussed in Section 3.1, Aesthetics, Section 3.3, Air Quality, and Section 3.14, Noise, the two residences located approximately 200 feet south of the Pipe Staging Area would potentially need to access Merryvale Lane or Ranch Road which intersect Stanly Lane during Project activities. In addition, patrons of Migration Winery may experience short-term road closures or detours to ensure public safety during Project activities in the Pipe Staging Area and during pipeline pullback.

Detour routes, signage, and traffic control would be provided to ensure traffic on public roads could be easily routed around the Project work areas. To reduce impacts to traffic and circulation affecting emergency access, PG&E would implement **MM TRA-1**, which would require preparation of a Traffic Control Plan including a detour route for emergency access, non-Project vehicles, and bicycles within the Project's vicinity.

> **MM TRA-1: Traffic Control Plan.** Prior to commencement of Project activities, a Traffic Control Plan shall be submitted to CSLC for review and approval. It shall include measures such as appropriate signage, detour routes, and lane closure to reduce potential hazards to motorists and workers during the Project. In addition, the Traffic Control Plan shall address measures to allow emergency vehicle access, and reduction of impacts to circulation, potential hazards to motorists, bicyclists, pedestrians, and workers during the Project.

Phase 2

During Phase 2, equipment would be working on both sides of the River including the levees adjacent to agricultural fields on the west side of the River and the NapaSan property on the east side of the river. No road closures would be warranted during Phase 2 of the proposed Project; however, as a result of the presence of heavy construction equipment, implementation of **MM TRA-1** would reduce potential circulation impacts affecting emergency access to less than significant.

3.18.4 Mitigation Summary

Implementation of the following MM would reduce the potential for Project-related impacts to Transportation to less than significant:

MM TRA-1: Traffic Control Plan

3.19 UTILITIES AND SERVICE SYSTEMS

UTILITIES AND SERVICE SYSTEMS – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☒
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

3.19.1 Environmental Setting

The Project does not include components that would require or alter existing utilities or service systems. However, the Project would generate solid and liquid waste during construction. A discussion of liquid waste generation resulting from pipeline flushing activities is included in Section 3.11, Hydrology and Water Quality. Project-related solid waste would be recycled to the extent feasible and transported to a solid waste facility within 50 miles of the Project area. Non-recyclable, non-hazardous solid waste would likely be transported to the Potrero Hills Landfill, which is the nearest landfill to the Project area. The Potrero Hills Landfill, located in Suisun City, is permitted for disposal of industrial, construction and demolition waste, and had 13,872,000 cubic yards of remaining capacity as of January 1, 2006. The Potrero Hills Landfill has enough capacity to meet demand through year 2048 (CalRecycle 2022b).

Alternatively, the Clover Flat Landfill is in Napa County and is within 50 miles of the Project area. The Clover Flat Landfill is a total of 79 acres in size, with a permitted disposal area of 44 acres. The Clover Flat Landfill is classified as a Class III municipal solid waste landfill facility and is permitted to accept sludge, mixed municipal, construction, and demolition waste. The Clover Flat Landfill has enough capacity to meet demand through the year 2047 (CalRecycle 2022a).

The nearest hazardous waste disposal site to the Project area is the Napa-Vallejo Household Hazardous Waste Collection Facility, 889 Devlin Road Transfer Station in American Canyon, California, which is permitted to receive petroleum-based products such as contaminated pipeline flush water.

3.19.2 Regulatory Setting

Federal and state laws and regulations pertaining to utilities and service systems and relevant to the Project are identified in Appendix A. At the local level, policies and programs are included in Appendix B.

3.19.3 Impact Analysis

The Project would generate solid and liquid waste and temporarily require water for the necessary drilling fluids and for hydrotesting; however, the Project would not create a permanent need for expanded utilities or services.

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

No Impact

The Project consists of the replacement of an existing natural gas pipeline and does not include activities or new facilities that require new or expanded water, wastewater treatment, stormwater drainage, electrical power, natural gas, or telecommunications facilities. Therefore, there would be no impact.

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

Less than Significant Impact

The Project would require water to produce necessary drilling fluids, hydrotesting, and pigging and flushing activities. As discussed in Section 2.1.8, Water and Waste Disposal Requirements, this water may be reclaimed water from the nearby wastewater treatment facility, from a nearby residential or agricultural well, or from a municipal water source. Water from one or more of these potential sources would be trucked to the Project area from off site. Approximately 300,000 gallons of freshwater would be required to produce the necessary drilling fluids and about 100,000 gallons would be required for hydrostatic pipeline testing. Approximately 20,000 gallons of freshwater would be required for pigging and flushing the five segments of pipeline. No long-term water demand would be created, and no new or expanded water infrastructure or entitlements would be needed. Therefore, there would be a less than significant 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?

Less than Significant Impact

As discussed in Section 3.11, Hydrology and Water Quality, wastewater generated by pipeline flushing would be treated as needed and disposed onsite under the authorization of a general permit. Alternatively, wastewater would be disposed of offsite at a permitted facility. Portable restrooms would be provided onsite for workers and resulting domestic wastewater/sewage would

be disposed at a municipal wastewater treatment plant located within 50 miles of the Project area. The Project would not generate the need for long-term wastewater treatment and would not affect the capacity of any wastewater treatment providers. Therefore, there would be a less than significant 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?

Less than Significant Impact

The Project would generate solid waste including removed pipeline sections, demolished concrete, miscellaneous debris, and materials packaging. Steel pipe would be recycled if feasible, within the balance of generated solid waste disposed at a permitted landfill. Facilities within 50 miles of the Project area have adequate remaining capacity to accept the waste from Project activities. Therefore, the impact would be less than significant.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No Impact

Solid waste would be disposed of in accordance with local, state, and federal laws and regulations as required by the Project plans and specifications. Removed pipes and any associated debris would be recycled to the extent feasible. Non-hazardous waste would be disposed of at a nearby landfill. Disposal of solid waste generated by the Project would not affect regional compliance with State-mandated municipal solid waste diversion and recycling requirements. Therefore, there would be no impact.

3.19.4 Mitigation Summary

The Project would not result in significant impacts to Utilities and Service Systems; no mitigation is required.

3.20 WILDFIRE

WILDFIRE - 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**	**Less Than Significant Impact**	**No Impact**
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks of, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts on the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

3.20.1 Environmental Setting

The Project area is not in or near a State Responsibility Area or in lands classified by CAL FIRE as a very high fire hazard severity zone. It is in an area where local municipalities have financial responsibility for fire protection. In the unincorporated areas of Napa County, CAL FIRE is contracted by Napa County to provide fire protection through the Napa County Fire Department. Fire protection is provided by five full-time paid stations in addition to nine volunteer fire companies (Napa County 2022b). Fire service within the Project area is served by the Napa County Fire Department Station 27.

Project activities including equipment staging, HDD operations, excavation, and pipe staging would occur within areas of irrigated agriculture or the River floodplain, with relatively high soil moisture. Also, potentially flammable vegetation in the Project work areas would be removed during Project setup to reduce wildfire risk.

3.20.2 Regulatory Setting

There are no federal laws, regulations, or policies pertaining to wildfire that are relevant to the Project. State laws and regulations pertaining to wildfire and relevant to Project are identified in Appendix A. The local level, policies and programs are included in Appendix B.

3.20.3 Impact Analysis

There would be no Project-related impacts to wildfire.

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks of, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts on the environment?

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact (a through d)

The Project area is outside of an identified fire hazard zone. The native soil is moist. Vegetation on the Project site would be removed to help reduce the risk of wildfire in the Project area. See Section 3.18, Transportation for discussions on emergency response plans and emergency evacuations. Therefore, there would be no impact.

3.20.4 Mitigation Summary

The Project would have no impact on Wildfire; no mitigation is required.

3.21 MANDATORY FINDINGS OF SIGNIFICANCE

The lead agency shall find that a project may have a significant effect on the environment and thereby require an EIR to be prepared for the project where there is substantial evidence, considering the whole record, that any of the following conditions may occur. Where prior to commencement of the environmental analysis a project proponent agrees to MMs or project modifications that would avoid any significant effect on the environment or would mitigate the significant environmental effect, a lead agency need not prepare an EIR solely because without mitigation the environmental effects would have been significant (per State CEQA Guidelines, § 15065).

MANDATORY FINDINGS OF SIGNIFICANCE –	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the	☐	☐	☒	☐

MANDATORY FINDINGS OF SIGNIFICANCE –	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
effects of past, present and probable future projects)?				
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

3.21.1 Impact Analysis

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

Less than Significant with Mitigation

As analyzed in Biological Resources (Section 3.4), the Project would not significantly adversely affect fish or wildlife habitat, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of an endangered, rare, or threatened species. **MM BIO-1** through **MM BIO-11** (Biological Resources), as well as **MM HAZ-2** (Hazards), would ensure that the minor, temporary, and localized impacts on special-status species and their habitats would be less than significant.

The Project's potential effects on historic and archaeological resources are described in Cultural Resources (Section 3.5) and Cultural Resources – Tribal (Section 3.6). Based on cultural resources records of the area, cultural resources are unlikely to be adversely affected. Implementation of **MM CUL-1/TCR-1, MM CUL-2,** and **MM CUL-3/TCR-3** through **MM CUL-5/TCR-5** (Cultural and Tribal Resources) would reduce the potential for Project-related impacts on previously undiscovered cultural and tribal cultural resources to a less than significant level.

b) Does the project have impacts that would be 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

As provided in this MND, the Project has the potential to significantly impact the following environmental disciplines: Aesthetics (Section 3.1), Air Quality (Section 3.2), Biological Resources (Section 3.4); Cultural Resources (Section 3.5); Cultural Resources – Tribal (Section 3.6); Geology, Soils, and Paleontological Resources (Section 3.8); Hazards and Hazardous Materials (Section 3.10), Hydrology and Water Quality (Section 3.11), Noise (Section 3.14), Recreation (Section 3.17), and Transportation (Section 3.18). However, measures have been identified that would reduce these impacts to less than significant with mitigation. For any Project-related impact to contribute cumulatively to impacts of past, present, or reasonably foreseeable projects, the other projects would need to result in an impact on the same resource area, occur at the same time, or occur within an area overlapping the proposed Project.

Upon a query of Napa County, no cumulative projects were identified that would result in a cumulative impact to the environment. Therefore, no cumulative impact would result.

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

Less than Significant with Mitigation

The Project's potential to impact human beings is addressed in Sections 3.1 through 3.20 of this document, including impacts that may affect resources used or enjoyed by the public, residents, and others in the Project area (such as aesthetics, public services, and recreation); those that are protective of public safety and well-being (such as air quality, geology and soils, GHG emissions, hydrology and water quality, and noise); and those that address community character and essential infrastructure (such as land use and planning, population and housing, transportation, and utilities). None of these analyses identified a potential adverse effect that could not be avoided or minimized through the MMs described or compliance with standard regulatory

requirements. As such, with mitigation in place, Project impacts would be less than significant.

4.0 OTHER STATE LANDS COMMISSION CONSIDERATIONS

In addition to the environmental review required pursuant to the California Environmental Quality Act (CEQA), a public agency may consider other information and policies in its decision-making process. This section presents information relevant to the California State Lands Commission's (CSLC or Commission) consideration of the Project. The considerations addressed below are:

- Climate change and sea level rise
- Commercial and recreational fishing
- Environmental justice
- Significant Lands Inventory

Other considerations may be addressed in the staff report presented at the time of the Commission's consideration of the Project.

4.1 CLIMATE CHANGE AND SEA LEVEL RISE

Sea level rise as a function of global climate change is not expected to have any effect on the Project because the Project area involves submerged land of the River. Although the portion of the River that is associated with the proposed Project is tidally influenced, portions of the existing pipeline would be removed from below the bed and banks of the River, and upland portions would be removed or left in place at depth as part of the decommissioning (see Section 2.2.1 for individual pipeline segment depths-of-burial). The new pipeline would be installed via horizontal directional drilling (HDD) and would be well below the bed of the River and therefore would not be affected by projected flooding or drought conditions.

The California Ocean Protection Council updated the State of California Sea Level Rise Guidance in 2018 to provide a synthesis of the best available science on sea level rise projections and rates. CSLC staff evaluated the "high emissions," "medium-high risk aversion" scenario to apply a conservative approach based on both current emission trajectories and the lease location. The San Francisco tide gauge was used for the projected sea level rise scenario and the Project area could see 0.8-foot sea level rise by 2030, 1.9 feet by 2050, and 6.9 feet by 2100 (Ocean Protection Council 2018). The range in potential sea level rise indicates the complexity and uncertainty of projecting these future

changes—which depend on the rate and extent of ice melt—particularly in the second half of the century.

Along with higher sea levels, winter storms of greater intensity and frequency resulting from climate change will further affect coastal areas. In rivers and tidally influenced waterways, more frequent and powerful storms can result in increased flooding conditions and damage from storm-generated debris. Climate change and sea level rise also will affect coastal and riverine areas by changing erosion and sedimentation rates. Beaches, coastal landscapes, and near-coastal riverine areas exposed to increased wave force, run up, and total water levels could potentially erode more quickly than before. However, rivers and creeks also are predicted to experience flashier sedimentation pulse events from strong winter storms, punctuated by periods of drought. Therefore, depending on precipitation patterns, sediment deposition and accretion may accelerate along some shorelines and coasts.

Governor Brown's Executive Order B-30-15 instructed all state agencies to take climate change into account in their planning and investment decisions, and to give priority to actions that build climate preparedness. This climate change and sea level rise discussion is intended to provide the local and regional overview and context that the CSLC staff considered pursuant to this Executive Order. This climate change and sea level rise analysis would be relied on in the staff report when the Commission considers the Project.

4.2 COMMERCIAL AND RECREATIONAL FISHING

The Napa River system supports a small run of steelhead, plus several species of non-native warmwater fish. All tributaries to the Napa River are closed to fishing year-round. A major portion of the Napa River drainage is in private ownership which limits fishing access. Striped bass (non-native), sturgeon (recreational only), and starry flounder can be caught in the city of Napa where the River runs through the middle of the city. After consulting with CDFW, there is no commercial fishing in the Project area due to a lack of target species. The River does support recreational fishing, and the closest access points for fishermen to launch their boats include Kennedy Park boat launch approximately 1.8 river-miles north of the Project area and Cuttings Wharf located approximately 1.7 river-miles south of the Project area. In-water work would happen when some of the recreational game species would be less likely or unlikely to be present. At any one time, it is estimated that in-water pipeline removal activities would temporarily affect only a small portion of the width of the River along Segment 2. Therefore, fishermen would have free passage around the Project barge and

vessels during Project activities. Overall, the Project is not anticipated to affect recreational fishing opportunities in the affected waterway; however, mitigation measure **(MM) REC-1** and **MM REC-2** (Recreation) have been included to address in-water construction safety concerns and reduce impacts to less than significant.

4.3 ENVIRONMENTAL JUSTICE

"Environmental justice" is defined by California law as "the fair treatment and meaningful involvement of people of all races, cultures, incomes, and national origins, with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies" (Gov. Code, § 65040.12, subd. (e)). This definition is consistent with the Public Trust Doctrine principle that the management of trust lands is for the benefit of all people. The CSLC adopted an Environmental Justice Policy in December 2018 (CSLC 2018, Item 75) to ensure that environmental justice is an essential consideration in the CSLC's processes, decisions, and programs (CSLC 2018b).[12] Through its policy, the CSLC reaffirms its commitment to an informed and open process in that all people are treated equitably and with dignity, and in that its decisions are tempered by environmental justice considerations. Among other goals, the policy commits the CSLC to, "Strive to minimize additional burdens on and increase benefits to marginalized and disadvantaged communities resulting from a proposed project or lease."[13]

As summarized below, the available data revealed no significant environmental impact associated with the issuance of an amendment of General Lease – Right-of-Way Use, for either the installation or removal of PG&E gas pipelines associated with L-021A in the River. Project staging areas and access would be coordinated with the respective landowners prior to use. The causal relationship between access and environmental burden appears largely unsupported by quantitative data at the time of publication. Therefore, community outreach was not conducted.

[12] See https://www.slc.ca.gov/wp-content/uploads/2018/11/EJPolicy.pdf

[13] The CSLC has chosen to analyze this impact in addition to the impact analyses set forth in CEQA Guidelines Appendix G. Though use of the Appendix G checklist meets the requirements for an initial study, "public agencies are free to devise their own format." (State CEQA Guidelines section 15063, subdivision (f))

4.3.1 U.S. Census Bureau Statistics

The regional Project area includes Napa County within the State of California. The local study area includes Napa County as well as the city of Napa. Specifically, the Project is located within Census Tract 2008.02 within the city of Napa and Tract 2010.05 within Napa County (U.S. Census Bureau 2020). Tables 4.3-1 through 4.3-3 present income, employment, and race data of the regional and local study area in the Project vicinity, based on the most recently available information from the U.S. Census American Community Survey 1-Year and 5-Year Estimates (U.S. Census Bureau 2022a).

4.3.2 Population and Economic Characteristics

4.3.2.1 Demographics

As indicated in Table 4.3-1, regionally the population in Napa County and the city of Napa include approximately 73.1 to 77.1 percent white and 22.9 to 26.9 percent non-white population. Additionally, Census Tract No. 2008.02 within the city of Napa has a population of approximately 85.6 percent white and 14.4 percent non-white population. These areas have a higher percentage of white population than the State of California, which contains approximately 60.1 percent white people. Further, demographics within Census Tract 2010.05 including the eastern portion of the Project area is much more diverse, and only includes 36.6 percent white population as compared to 63.4 percent non-white population. This non-white population is predominantly identified as persons of Asian descent (31.1 percent) and some other race (11.5 percent).

Additionally, it is important to note that this area also contains a significant number of persons who classify themselves as being of Hispanic or Latino decent. Specifically, Census Tract No. 2008.02 within the city of Napa contains the highest percentage, at 43.0 percent. This percentage is consistent with the city of Napa and State of California at 40.4 and 38.0 percent, respectively. However, the population within the eastern Project area (Census Tract 2010.05), contains a slightly lower (percentage 27.2 percent) of Hispanic persons than Napa County (33.9 percent) or the city of Napa (40.4 percent).

Table 4.3-1. Environmental Justice Statistics (Percent Race[1])

Parameter	California	Napa County	City of Napa	Census Tract 2008.02	Census Tract 2010.05
White	60.1%	73.1%	77.1%	85.6%	36.6%
Black or African American	5.8%	2.0%	0.7%	0.7%	4.4%
American Indian and Alaska Native	0.8%	0.9%	1.1%	4.3%	0.3%
Asian	14.3%	8.1%	3.2%	3.1%	31.1%
Native Hawaiian	0.4%	0.2%	0.1%	0.9%	0.0%
Some Other Race	13.8%	11.9%	14.3%	16.4%	11.5%
Hispanic or Latino (of Any Race)	38.9%	33.9%	40.4%	43.0%	27.2%

Note: 1 Race alone or in combination with one or more other races
Source: U.S. Census Bureau American Fact Finder accessed November 2022 (DP05 – 2018 ACS 5 Year Estimates Data Profiles, Demographic and Housing Estimates).

4.3.2.2 Socioeconomics

As shown in Table 4.3-2, from a regional standpoint, Napa County has an above average medium household income level ($92,219) compared to the State of California ($84,907) and the city of Napa ($85,953). Further, Census Tracts 2008.02 and 2010.05 have an even higher median household income ($100,587 to $101,875) than the regional averages. As shown in Table 4.3-3, Napa County (including Census Tract 2010.05) and the city of Napa residents (including Census Tract 2008.02) are supported primarily by employment in manufacturing, educational services, arts, entertainment, and recreation (U.S. Census Bureau 2022a). With respect to populations living below the established poverty level, Napa County and the city of Napa contain a lower percentage of families living below the established poverty level (4.9 to 5.1 percent) compared to the State of California (9.0 percent). Census Tract 2008.02, including the western portion of the Project area within the city of Napa, includes a much lower percentage than the average for the area (0.6 percent). Census Tract 2010.05, including the eastern Project area within Napa County is similar to the State of California, including 8.9 percent of families below the established poverty level.

Table 4.3-2. Environmental Justice Statistics (Income and Population)

Parameter	California	Napa County	City of Napa	Census Tract No. 2008.02	Census Tract No. 2010.05
Total population	39,148,760	140,530	79,516	6,600	2,423
Median household income	$84,907	$92,219	$85,953	$100,587	$101,875
Percent (%) below the poverty level (all families)[1]	9.0%	4.9%	5.1%	0.6%	8.9%

Notes: Poverty threshold as defined in the ACS is not a singular threshold but varies by family size.
Census data provides the total number of persons for whom the poverty status is determined and the number of people below the threshold.
The percentage is derived from this data.
Source: U.S. Census Bureau accessed November 2022 (DP03 – Selected Economic Characteristics
U.S. Census Bureau accessed November 2022 and January 2023 (DP05 – Demographic and Housing Estimates, 2018 and 2020 ACS)

Table 4.3-3. Environmental Justice Statistics (Employment Industry – Percentage of Total Population)

Parameter	California	Napa County	City of Napa	Census Tract No. 2008.02	Census Tract No. 2010.05
Agriculture, forestry, fishing and hunting, mining	2.1%	5.0%	5.3%	2.7%	2.4%
Construction	6.8%	5.6%	5.8%	7.5%	2.1%
Manufacturing	9.0%	13.2%	13.6%	14.0%	10.1%
Wholesale trade	2.6%	2.5%	2.4%	0.3%	3.1%
Retail trade	10.2%	9.8%	10.0%	9.8%	11.3%
Transportation and warehousing, and utilities	6.2%	3.5%	3.1%	4.3%	9.7%

Parameter	California	Napa County	City of Napa	Census Tract No. 2008.02	Census Tract No. 2010.05
Information	2.9%	1.4%	1.4%	0.0%	2.5%
Finance and insurance, and real estate and rental and leasing	5.8%	4.8%	3.8%	1.1%	4.6%
Professional, scientific, and management, and administrative and waste management services	14.3%	10.4%	10.8%	17.0%	9.0%
Educational services and health care and social assistance	22.0%	21.0%	20.1%	22.5%	20.9%
Arts, entertainment, and recreation, and accommodation and food services	8.7%	14.3%	15.4%	14.3%	14.5%
Other services, except public administration	4.6%	4.5%	4.4%	3.2%	5.2%
Public administration	4.8%	3.9%	3.9%	3.2%	4.6%

Sources:
U.S. Census Bureau American Fact Finder accessed November 2022 and January 2023 (DP03 – Selected Economic Characteristics
2020 ACS 5-Year Estimates, 2021 ACS 1 Year Estimate)

4.3.3 California Office of Environmental Health Hazard Assessment (OEHHA) CalEnviroScreen Results

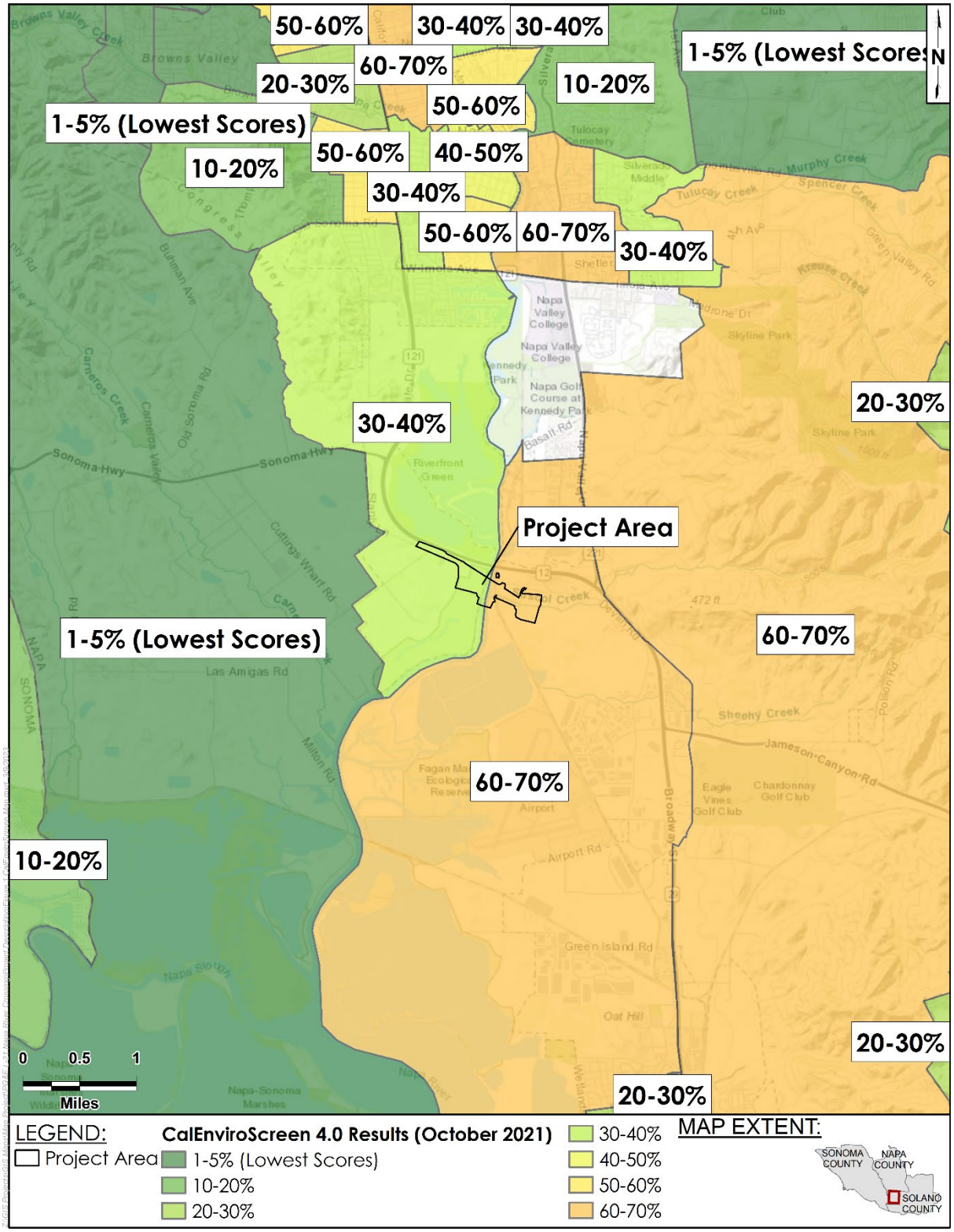
According to California Office of Environmental Health Hazard Assessment (OEHHA 2022) California Communities Environmental Health Screening Tool (CalEnviroScreen) data, the western Project area has a score in the 39th percentile, meaning that up to 61 percent of all census tracts in California have a higher population vulnerability or environmental burdens (Figure 4.3-1). The existing pollution burden within this area is due primarily to pesticides, groundwater threats, hazardous waste, and existing traffic exposures.

The eastern Project area has a significantly higher pollution burden scoring in the 63rd percentile, meaning only 37 percent of areas in California have a higher population vulnerability or environmental burdens. The existing pollution burden within this area is due primarily to toxic releases, groundwater threats and drinking water concerns, hazardous waste, and traffic exposures. Figure 4.3-1 provides a summary of the OEHHA CalEnviroScreen statistics along the Project corridor.

4.3.4 Conclusion

The proposed Project is located within a regional area that has a higher-than-average white population, and lower to equal poverty level rates than the State percentage. Although the Project corridor Census Tract contains a significantly higher percentage of minority populations, the income statistics in this area are equal to much higher within Napa County and within the Census Tract compared to the State percentage. The primary occupations within the Project vicinity (manufacturing, educational services, and healthcare) would not be affected by the proposed pipeline removal/installation activities. Although the eastern portion of the Project corridor is located within an area of higher existing environmental burden, the proposed Project would not contribute to additional impacts to water quality, hazardous materials, or traffic that would increase this existing burden following implementation of MMs identified in Sections 3.10, Hazards and Hazardous Materials, 3.11, Hydrology and Water Quality, and 3.18, Transportation above. Additionally, Project staging areas and access would be coordinated with the respective landowners prior to use. Access to the Project area for implementation of the Project would not increase the existing environmental burden; therefore, community outreach was not conducted. No significant impact would result.

Figure 4.3-1. CalEnviroScreen 4.0 Results for Existing Pollution Burden Score



4.4 SIGNIFICANT LANDS INVENTORY

The Project would involve lands identified as possessing significant environmental values within the Commission's Significant Lands Inventory, pursuant to Public Resources Code section 6370 et seq. The Project site is in the Significant Lands Inventory as parcel numbers 28-091-000 (Napa River, Napa County). The subject lands are classified as use category Class B, which authorizes limited use. Environmental values identified for these lands are mostly biological, including endangered species habitat, migratory path for anadromous fish spawning on tributary streams, riparian habitat for wildlife support, and recreational.

Based on CSLC staff's review of the Significant Lands Inventory and the CEQA analysis provided in this MND, the Project, as proposed, would not significantly affect those lands and is consistent with the use classification.

5.0 MND PREPARATION SOURCES AND REFERENCES

This Mitigated Negative Declaration (MND) was prepared by the staff of the California State Lands Commission's Division of Environmental Science, Planning, and Management (DESPM), with the assistance of Padre Associates, Inc. (Padre). The analysis in the MND is based on information identified, acquired, reviewed, and synthesized based on DESPM guidance and recommendations.

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